UC Davis UC Davis Previously Published Works

Title

Observations From California's Delivery System Reform Incentive Payment Program

Permalink https://escholarship.org/uc/item/9gz819mf

Journal American Journal of Medical Quality, 33(1)

ISSN 1062-8606

Authors Shaikh, Ulfat Kizer, Kenneth W

Publication Date 2018

DOI 10.1177/1062860617696579

Peer reviewed

eScholarship.org

Observations From California's Delivery System Reform Incentive Payment Program

American Journal of Medical Quality

© The Author(s) 2017 Reprints and permissions: sagepub.com/journalsPermissions.nav DOI: 10.1177/1062860617696579 journals.sagepub.com/home/ajm SAGE

Ulfat Shaikh, MD, MPH, MS¹, and Kenneth W. Kizer, MD, MPH¹

Abstract

California's Delivery System Reform Incentive Payment (DSRIP) Program provided \$3.3 billion over 5 years to support 21 public hospitals improve the quality of health care delivery and population health. The Institute for Population Health Improvement provided technical support and quality improvement mentorship to the California Department of Health Care Services in implementing the DSRIP Program. This report describes the following key observations on the implementation of the program: the need to reduce variability in data collection and management, memorialize decision-making processes, build broad quality improvement capacity, define and revisit improvement targets, anticipate evolution of clinical definitions and guidelines, provide frequent feedback to participating hospitals, engage frontline clinicians, balance short- and long-term improvement goals, acknowledge regulatory requirements and improvement efforts that may compete for resources, and build in shared learning and dissemination of interventions. The authors believe this experience with implementing California's DSRIP Program may assist other states as they implement similarly intended reform programs.

Keywords

delivery of health care, health care reform, reimbursement incentive, quality of health care, patient safety

California's Medical Assistance Program, Medi-Cal, is the nation's largest Medicaid program in terms of covered lives, providing health insurance for approximately 13.5 million low-income or disabled persons in 2015. Medi-Cal is also California's largest health insurance plan, providing coverage for about one third of adults and almost half of the state's children.¹

Between 2010 and 2015, Medi-Cal implemented "California Bridge to Reform," a Medicaid Section 1115 research and demonstration project waiver that included the Delivery System Reform Incentive Payment (DSRIP) Program.² Under Section 1115 waivers, the federal government waives certain program requirements to allow states to develop and test innovative approaches to improve health care delivery for Medicaid beneficiaries.³ California's DSRIP Program provided \$3.3 billion over 5 years to support 21 designated public hospitals in California improve the delivery of health care and the health of the populations they served. The 21 designated public hospitals included 16 publicly funded county hospitals and all 5 University of California Medical Centers (Figure 1). Of California's approximately 430 general acute care hospitals in 2015, these 21 designated public hospitals were the primary health care providers for approximately half of the state's uninsured individuals and a third of all Medi-Cal enrollees. California was the

first state to obtain a Section 1115 waiver that included the DSRIP Program. More recently, Massachusetts, Texas, Kansas, New York, and New Jersey have obtained similar Section 1115 waivers.⁴

As a group, participating hospitals in the DSRIP Program developed and implemented activities in 5 broad areas: (1) infrastructure improvement, including technology and human resources; (2) innovative care delivery models; (3) population health–focused improvements, specifically addressing the highest burden conditions in the populations they serve; (4) patient safety; and (5) human immunodeficiency virus (HIV) transition of care, especially transitions of care for children with HIV as they mature.³ Implementation of the DSRIP Program posed diverse and significant challenges for the institutions involved.

An evaluation of the outcomes of California's DSRIP Program is being conducted by investigators unaffiliated with its implementation. An interim evaluation was published in 2014,⁵ and the final evaluation is pending approval by the

¹University of California, Sacramento, CA

Corresponding Author:

Ulfat Shaikh, MD, MPH, MS, University of California Davis School of Medicine, 2516 Stockton Blvd, Suite 340, Sacramento, CA 95817. Email: ushaikh@ucdavis.edu

DELIVERY SYSTEM REFORM INCENTIVE PAYMENTS (DSRIP) PROGRAM

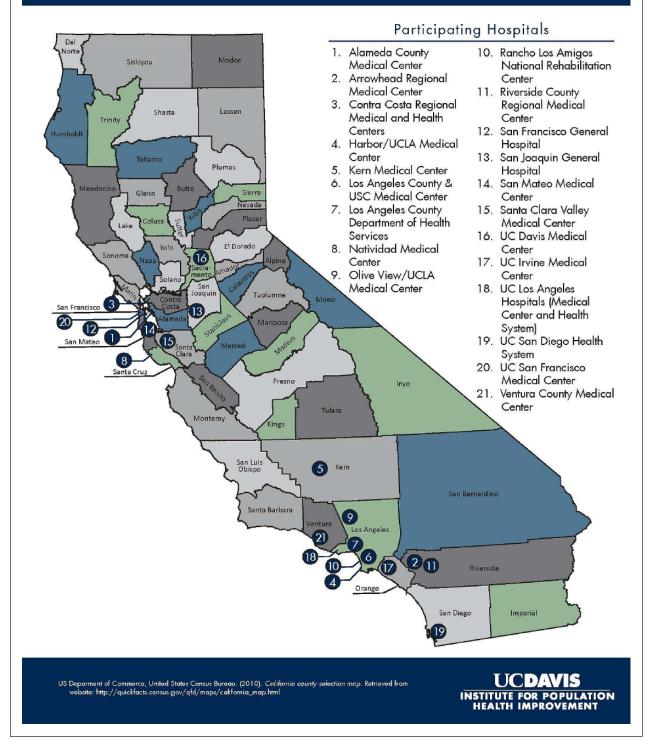


Figure 1. Map of public hospitals that participated in California's Delivery System Reform Incentive Payment (DSRIP) Program.

Centers for Medicare & Medicaid Services (CMS). Participating hospitals achieved the majority of their targets primarily because of significant levels of investment of financial and human resources in DSRIP projects.5 The greatest impact was reported in the areas of improving health care delivery (quality of care and patient experience) and improving population health, 2 of the 3 key goals of the Triple Aim.⁶ High levels of improvement were noted in the areas of physician-patient communication, mammography screening, prevention and treatment of venous thromboembolism, severe sepsis mortality, central line-associated bloodstream infection (CLABSI), surgical site infection (SSI), hospital-acquired pressure ulcers, and stroke mortality. However, a lower impact was reported on the third goal of the Triple Aim, reducing the per capita cost of health care-partly because of the lack of long-term data on the impact of DSRIP projects.⁵

The Institute for Population Health Improvement (IPHI) is an independent operating unit within the University of California Davis (UC Davis) Health System. The IPHI was established in 2011 as a vehicle to operationalize a forward-looking vision of how a university and academic health center could collaborate with state and local government agencies, philanthropies, and other entities to improve population health.⁷ The Institute has no direct nexus with the UC Davis Medical Center, one of the DSRIP Program participating hospitals. As part of a multiyear, multifaceted Medi-Cal Quality Improvement Program, IPHI was engaged by the California Department of Health Care Services (DHCS) to provide technical assistance and quality improvement (QI) mentorship for the DSRIP Program. Both of the authors, as well as other IPHI staff, have extensive backgrounds in QI, and IPHI has engaged with DHCS and other state agencies on multiple QI initiatives since being established.⁷ IPHI was brought into the DSRIP Program after the "California Bridge to Reform" Program had been operating for more than a year, and it had not been involved in the development of the state's Section 1115 waiver request.

This report describes 11 key observations made about implementation of California's DSRIP Program. These observations may have relevance to other states pursuing similarly intended Section 1115 waivers or other health care reform efforts.

Key Observations

Observation 1: Reducing variability in data collection and data management is necessary for implementing rapid-cycle QI and for interfacility comparisons

Data collection and reporting lags posed significant challenges to rapid-cycle QI efforts at many hospitals in the DSRIP Program. Rapid-cycle QI methods require use of near real-time data. In order for rapid-cycle QI to be effective, resources to provide timely, ongoing, and clear information back to hospitals should be incorporated into the design of the program. As an example of the problems encountered by hospitals, when one participating hospital focused on redesign of their specialty care services, it discovered that it lacked standardized data across its specialty services for metrics involving wait times, appointment wait lists, and the number of referrals and consultation requests that had been screened. This hospital then had to invest significant time and resources before it could proceed with capacity building and staff training to standardize data collection and to provide just-in-time information on measures. In addition, data collection on quality measures, as well as referral tracking reports, were collected manually at this hospital, which impeded its ability to generate timely and actionable information. It took several months for the hospital to develop and implement an automated system to overcome this challenge. Different iterations and combinations of these types of problems were experienced by several other participating hospitals.

Ideally, rigorous measurement of outcomes and the use of standardized and validated measures would be incorporated at the beginning of program evaluation. However, it also is important to balance the need for rigorous assessment with the reality of imperfect data. Although a primary goal of the DSRIP Program was to increase standardization of data collection and management, it also allowed participating hospitals flexibility in how they managed their quality metrics based on their existing data collection systems. This flexibility was initially thought to be necessary because redesigning existing electronic data systems was financially unrealistic for many participating hospitals. However, this flexibility resulted in significant challenges in comparing data across hospitals. This point was especially evident in the early stages of the DSRIP Program when baseline data for interventions related to patient safety were evaluated—for example, interventions for the detection and management of severe sepsis.

Severe sepsis was identified by CMS as an area that would be used as a learning laboratory for participating hospitals, with the emphasis of the intervention being on learning, testing, and innovation. The rationale was that learning in this focus area would inform ongoing efforts by participating hospitals to reduce sepsis mortality. Compliance with elements of the sepsis resuscitation bundle was selected as a process measure. However, reliable benchmarks and baseline data were not available for this measure. Moreover, participating hospitals were employing a range of data collection methodologies. Consequently, in operationalizing data collection for severe sepsis to assess the effect of interventions at each hospital in relation to their individual baseline data, hospital-level variation had to be taken into account.

Another related observation was the need to provide more detailed instructions, a checklist, and a sample report to hospitals to provide them with additional guidance in preparing their periodic reports to CMS. In response to CMS's feedback that many hospitals provided inadequate levels of information, IPHI developed templates to standardize quantitative and qualitative reporting of QI activities. Review of subsequent reports from hospitals showed that the use of these templates resulted in significant improvement and standardization of the quality of reports submitted.

Observation 2: Memorializing decisions and the rationale for decision making is necessary to facilitate consistent implementation

During the 5-year course of California's DSRIP Program there were multiple changes in leadership and management of participating hospitals. Consequently, individuals who were instrumental in writing initial implementation and evaluation plans at the hospitals often were not the same individuals later responsible for operationalizing those plans. Generally, no written record was made of why decisions were made, often causing uncertainty and confusion about why various decisions were made and incorporated into the waiver. Knowing the rationale for key decisions would have been helpful in numerous instances. For example, program terms and conditions specified that improvements in patient safety would be evaluated utilizing 3 methods: benchmarking hospitals against comparable peer groups, comparing improvements with each hospital's baseline performance, and hospitals' attainment of specific improvement targets (which was linked to receipt of incentive payments). However, during the early phases of program implementation, it became apparent that wide variation in the characteristics of participating hospitals made it essentially impossible to identify comparable peer groups. No record was available detailing the rationale for the original decision, causing considerable disharmony and contentiousness between participating hospitals and DHCS. Ultimately, it was decided that hospitals' performance would be evaluated based on improvements in each hospital's baseline performance and the attainment of specified improvement targets. Memorializing decision-making criteria and rationale on an ongoing basis would enable successive leaders to better understand, implement, and adapt planned interventions.

Observation 3: Building broad organizational capacity for QI is critical to achieving desired outcomes

Key partnerships were established to support DSRIP participating hospitals prior to and during initial program implementation to leverage existing capacity and strengths of QI organizations in California. The California Association of Public Hospitals (CAPH) and its Safety Net Institute (SNI) provided support and engaged participating hospitals in quality improvement learning networks. CAPH and SNI have multidisciplinary staff with training in health care delivery, QI, and health care management, and these resources were utilized to support DSRIP participating hospitals.

California's DSRIP Program plan included a menu of potential projects and performance metrics. Participating hospitals then selected projects from this menu. From its inception, the hospitals were engaged in the program by the CAPH, starting with hospitals' review of early drafts of the proposed program proposal. As the program was implemented, hospitals continued to be engaged in multiple areas. For example, clinicians and staff at participating hospitals provided technical assistance on selection of performance measures and data collection. Leveraging CAPH's existing relationship with participating hospitals was key in facilitating this engagement.

Building organizational capacity additionally involved training of clinicians and other staff in new protocols, technical competencies, and QI methods. Several hospitals trained their staff in QI methods such as Lean and Six Sigma before and during implementation of DSRIP projects, which involved significant time and expense, but contributed to long-term QI capacity beyond the DSRIP program.

Observation 4: Improvement goal setting should be an iterative and tailored process

Initially, uniform targets were set for improvement across all hospitals; however, this turned out to be unrealistic because hospitals varied substantially in their baseline performance and improvement capacity. For example, interventions and resources that go into achieving a target of 20% reduction in CLABSIs have very different implications when comparing high and low performers. Hospitals with high rates of CLABSIs that are in the early stages of examining their processes and implementing system-level interventions may see rapid improvement at the outset. However, once a subset of "low-hanging" interventions have been hardwired and performance improved, it is typically much harder to introduce more complex interventions and achieve substantive change. OI goals needed to be reset as the program progressed. Therefore, as the DSRIP Program was implemented, it was agreed that hospitals could set individual improvement targets based on their baseline data as well as statewide benchmark data.

Being ambitious yet realistic in setting targets was a constant challenge in implementing the DSRIP Program.

A fundamental flaw of the overarching strategy for goal setting was that hospitals stood to lose incentive payments if they did not meet targets they set for themselves. If hospitals set truly ambitious stretch goals, they risked losing the incentive payment. This is an inherent problem in many pay-for-performance programs. Several hospitals achieved their improvement targets in some categories during the initial 2 years of the DSRIP program, but it is possible that this success was secondary to their setting modest targets relative to their improvement capacity.

Observation 5: The evolution of clinical definitions and guidelines should be expected and must be accommodated

In a large-scale program such as DSRIP, with multiple focus areas and measures, it is inevitable that clinical definitions and guidelines will evolve; these changes must be accommodated. The initial stages of the DSRIP Program revealed significant variability within hospitals in the use of clinical definitions. One example was in the area of SSIs. When the original protocol for measuring SSIs within DSRIP was written in 2010, definitions for SSIs published by the National Healthcare Safety Network (NHSN) were utilized. Significant changes to NHSN surveillance of SSIs occurred in January 2013.8 As an example of these changes, the definition of primary closure of a surgical incision was changed to include procedures where devices remain extending through the incision at the end of the surgical procedure. Information on implants utilized during operative procedures was no longer collected as part of SSI surveillance. The duration of SSI surveillance was no longer determined by presence of surgical implant or type of SSI. Another example was in the area of CLABSI prevention. In January 2013, the NHSN clarified its definition of central line insertion practice compliance.8 Because of these changes in NHSN criteria, hospitals had to engage in a significant amount of rework, remeasuring their baseline data, benchmarking their performance, and setting new targets for improvement.

Observation 6: Providing frequent feedback to participating hospitals should be built into program planning

The DSRIP Program required participating hospitals to develop an improvement plan with milestones and targets. Hospitals submitted 2 semiannual reports that documented their progress; these were reviewed by the IPHI, DHCS, and CMS. Submission of these reports served as the basis for determining if hospitals received incentive payments. The annual reports additionally served to summarize performance of each hospital as well as lessons learned. From a state or federal oversight perspective, semiannual and annual reporting may be sufficient, but rapid-cycle improvement and shared learning requires more frequent measurement and reporting. For example, adherence to process of care standards such as central line insertion checklists or management of high mortality conditions such as severe sepsis are ideally measured and reported monthly or quarterly using run or control charts to allow for rapid and real-time response to observed trends. Other measures such as adherence to child weight screening or influenza immunization may require less frequent semiannual or annual measurements.

Observation 7: Engagement of frontline clinicians early and often is critical to the implementation of improvement initiatives

Traditionally, hospital-based QI has been a top-down process largely occurring within QI departments, even though it profoundly affects the work of frontline clinicians. In many participating hospitals, DSRIP plans were drafted by senior managers without initial buy-in or meaningful engagement of frontline staff. For example, 2 hospitals that planned to implement a community clinicbased chronic disease management program reported encountering substantial skepticism from clinicians when the program was to be launched, and additional time was then needed to build clinician engagement in the process. A more successful strategy for building clinician engagement reported by hospitals was actively involving frontline clinicians in developing the implementation process and tools from the earliest discussion of program design. For example, several hospitals reported educating primary care providers on concepts of the patient-centered medical home, seeking their ideas and feedback on redesigning models of care, and involving clinical champions to communicate with other clinicians. These inclusive types of efforts facilitated later implementation.

Observation 8. There needs to be a balanced portfolio of short- and long-term QI goals

Participating hospitals began the DSRIP Program with markedly different baseline levels of performance and capacity for QI. This resulted in variation in the type, structure, speed, and magnitude of interventions implemented. Several hospitals focused on the implementation of patient-centered medical homes. This particular focus area requires significant organizational change and, as has become apparent in recent years, may consume a substantial amount of already scarce hospital resources.⁹ Consistent with general QI experience, the authors believe combining longer term changes such as medical home implementation with high-leverage change ideas that can demonstrate short- and medium-term improvement would have been more effective in maintaining momentum for change.

In general, about 70% of all major organizational change initiatives fail.¹⁰ Ham et al noted, "Quality improvement often takes longer than expected to take hold and longer still to become widely and firmly established within an organization."¹¹ Sustaining QI requires ongoing measurement and vigilance in order to hardwire new processes, even after initial goals have been achieved. California's DSRIP Program recognized this need for attentiveness to sustainability by allowing hospitals a period of one year during which maintenance of an improvement target would still be eligible for incentive payments.

Observation 9: Be aware of simultaneous regulatory requirements and QI efforts that may compete for constrained resources

The danger of "reform overload" and "opportunity fatigue" must not be ignored as hospitals balance and manage simultaneous change efforts.¹² In observations of the DSRIP Program, the authors noted that ignoring potential opportunities to align initiatives across payers and funders can result in multiple and sometime disjointed and frenetic improvement efforts in already resource-constrained hospitals. This can prove to be counterproductive.

The DSRIP Program existed alongside several other initiatives and mandates aimed at increasing value and improving health outcomes. For example, several participating hospitals also were working on a state initiative to coordinate care for Medicare-Medicaid dually eligible beneficiaries and participating in various statewide or regional QI collaboratives. Hospitals also were working on the adoption, implementation, upgrading, and meaningful use of electronic health records through the Medicare and Medicaid Electronic Health Records Incentive Programs. A key goal of the DSRIP program was improving care coordination, and this priority existed alongside the Hospital Readmissions Reduction Program that financially penalizes hospitals for readmissions.

Observation 10: Shared learning experiences and structured dissemination of results facilitates improvement uptake

A key stakeholder of the DSRIP Program, the California SNI, implemented a number of learning communities or collaboratives to promote shared learning among hospitals participating in the program.¹³ As an example, the Lean Improvement Learning Community focused on supporting 8 hospitals that had recently adopted systemwide Lean QI approaches. The first of these, the Building Medical Homes and Improving Chronic Care program, aimed to move all primary care clinics at participating hospitals closer to achieving components of the medical home by providing a tailored approach to each hospital's needs. The other, the Patient Experience Transformation Initiative, aimed to ensure that public hospital systems achieved measurable improvements in patient and caregiver experience.

The Central Line–Associated Bloodstream Infection and Sepsis Collaboratives included all 21 DSRIPparticipating hospitals. The collaborative focused on data collection, implementation of the sepsis resuscitation bundle and central line insertion practices, training on performance improvement techniques, and monthly webinars on specific topics. The collaborative additionally provided data aggregation resources for benchmarking and QI, an improvement advisor who delivered team-based training and coaching in QI, and an expert team to provide more intensive individualized support for hospitals as needed. Utilizing the California SNI strengths and prior experience in leading such learning collaboratives was an important resource to participating hospitals to facilitating shared learning.

Observation 11. Greater attention to "systemness" early on likely would have benefitted implementation by facilitating more consistent approaches and obviating duplication of effort

Understanding the impact of programs such as DSRIP in transforming health care delivery systems requires thoughtful evaluation of the "systemness" of such programs. Systemness is a term used to describe how well interdependent components of an organization perform to achieve a common purpose. As defined by one of the authors (KWK), "Systemness refers to a functional state of diverse, interconnected, discrete parts that behave predictably and consistently as a coherent whole in ways that are distinct from and superior to the sum of the parts."¹⁴ In health care delivery, key aspects of systemness might include legal, structural, functional, clinical, and cultural aspects of the organization.

An essential systemness question to address is whether programs such as DSRIP enable health care providers and facilities to collaborate across disciplines and settings to improve the efficiency and quality of care and, ideally, achieve synergies. Several initiatives in the areas of infrastructure improvement and innovative care delivery models were in existence prior to hospitals' participation in the DSRIP program. However, the majority of these efforts, especially the expansion of medical homes, were not scaled up system-wide until after organization-wide cross-disciplinary resources and attention were dedicated to them consequent to the DSRIP Program.

Hospitals participating in DSRIP were formally involved in shared learning activities in the form of learning collaboratives. Some focus areas of these learning collaboratives were early identification and management of severe sepsis and the formation of medical homes. Qualitative evaluations of the robustness of such learning activities in promoting systemness should be a key component of the assessment of the effectiveness of health care reform programs such as DSRIP.

Summary

In 2010, California was the first state to implement a DSRIP Program; since then several other states have obtained Section 1115 waivers with DSRIP programs. Participating hospitals in the California DSRIP Program encountered diverse challenges but were successful in improving health care delivery and population health.⁵ California's 1115 waiver was renewed in December 2015, and a new Public Hospital Redesign and Incentives in Medi-Cal (PRIME) Program was included, which built on the DSRIP Program and drew from the foundational work and observations of DSRIP's successes and challenges.¹⁵ The authors believe these observations from California's DSRIP Program provide useful and timely lessons to other health care organizations as they plan and implement similarly intended health care reform efforts. Federal programs such as DSRIP provide states with unprecedented opportunity for large-scale transformation of health care delivery. Careful program planning and learning from the experiences of other states engaged in similar efforts can maximize the impact of such initiatives.

Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The authors disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: Drs Shaikh and Kizer provided technical assistance to the California Department of Health Care Services to support its implementation of the Delivery System Reform Incentive Payment program as part of the Medi-Cal Quality Improvement Program funded by Interagency Agreement #11-88141 with the Institute for Population Health Improvement.

References

- California Department of Health Care Services. Medi-Cal certified eligible—recent trends. www.dhcs.ca.gov/ dataandstats/statistics/Pages/Medi-Cal-Certified-Eligibles RecentTrends.aspx. Accessed December 15, 2016.
- California Department of Health Care Services. California Bridge to Reform: a Section 1115 waiver fact sheet. www. dhcs.ca.gov/Documents/1115%20Waiver%20Fact%20 Sheet%2011.2.10.pdf. Published November 2010. Accessed May 5, 2013.
- California Department of Health Care Services. Delivery System Reform Incentive Payments (DSRIP). www. dhcs.ca.gov/provgovpart/Pages/DSRIP1.aspx. Accessed December 15, 2016.
- Gusmano MK, Thompson FJ. An examination of Medicaid delivery system reform incentive payment initiatives under way in six states. *Health Aff (Millwood)*. 2015;34: 1162-1169.
- Pourat N, Kominski GF, Roby DH, et al. Interim Evaluation Report on California's Delivery System Reform Incentive Payments (DSRIP) Program. Los Angeles, CA: UCLA Center for Health Policy Research; 2014.
- Berwick DM, Nolan TW, Whittington J. The triple aim: care, health, and cost. *Health Aff (Millwood)*. 2008;27:759-769.
- Kizer KW. Improving population health through clinicalcommunity collaboration: a case study of a collaboration between state government and an academic health system. In: Callahan RF, Bhattacharya D, eds. *Public Health Leadership: Strategies for Innovation in Population Health and Social Determinants*. Abingdon, England: Taylor & Francis; 2016:114-135.
- Centers for Disease Control and Prevention. National Healthcare Safety Network (NHSN). www.cdc.gov/nhsn. Accessed May 9, 2013.
- 9. Kizer KW. Understanding the costs of patient-centered medical homes. *J Gen Intern Med*. 2016;31:705-706.
- Kotter JP. *Leading Change*. 1st ed. Brighton, MA: Harvard Business Review Press; 2012.
- Ham C, Kipping R, McLeod H. Redesigning work processes in health care: lessons from the National Health Service. *Milbank Q*. 2003;81:415-439.
- National Association of Medicaid Directors. Payment and delivery system reform in Medicaid: progress, challenges, and opportunities to move forward. http://medicaiddirectors. org/wp-content/uploads/2015/08/payment_and_delivery_ system_reform_in_medicaid_-_progress_challenges_and_ opportunities_to_move_forward.pdf. Published February 5, 2013. Accessed September 10, 2016.
- Institute for Healthcare Improvement. The Breakthrough Series: IHI's Collaborative Model for Achieving Breakthrough Improvement. Boston, MA: Institute for Healthcare Improvement; 2003.
- ECRI Institute. Systemness in healthcare: more than the sum of its parts. *Health Technol Trends*. 2013;25(1):1-3.
- California Department of Health Care Services. Public hospital redesign & incentives in Medi-Cal Program. www.dhcs.ca.gov/provgovpart/Pages/PRIME.aspx. Accessed September 10, 2016.