

The Affordable Care Act and Value-Based Purchasing: What's at Stake for Children with Medical Complexity?

Introduction

The Patient Protection and Affordable Care Act of 2010, also known as the "ACA," prioritizes the expansion of insurance coverage, prevention and public health innovation, and improvements in the health care delivery infrastructure ("Public Law 111-148: Patient Protection and Affordable Care Act," 2010). The "Triple Aim" approach to improving population health, reducing health care costs, and improving the individual experience of care is inherent in the ACA, which calls for greater alignment of health care quality, costs, and value, while also promoting population health (Berwick, Nolan, & Whittington, 2008). Central to improvements in health care quality and the containment of health care costs are performance-based payment and care delivery models that shift from a traditional fee-for-service model to a greater focus on increased quality and accountability with an emphasis on evaluating, reporting, rewarding excellence, and penalizing poor health care delivery (Centers for Medicare and Medicaid Services, 2012; Damberg et al., 2014; Keckley, Coughlin, & Gupta, 2011). In its application, the ACA has the potential to maximize the health and well-being of high-cost and high-need populations, such as children with medically complex conditions (Berry, Agrawal, Cohen, & Kuo, 2013), by increasing access to affordable care, high quality care, and appropriate care over the life course.

Children with medical complexity¹ comprise about 3% of the population of children with special health care needs (Kuo, Cohen, Agrawal, Berry, & Casey, 2011). They require a comprehensive array of specialty and collaborative medical, behavioral, and developmental health care and social services (McPherson et al., 1998) that often result in high health care costs and utilization, with costs expected to increase exponentially during the continuum of care into adulthood and across the life span (Berry et al., 2014; Cohen et al., 2012; Kuo et al., 2011; Lassman, Hartman, Washington, Andrews, & Catlin, 2014; Neff, Sharp, Muldoon, Graham, & Myers, 2004). Further, children with medical complexity are often underinsured, resulting in unmet needs, substantial family financial bur-

¹Kuo et al. defined children with medical complexity using child health components from the National Survey of Children with Special Health Care Needs. These include dependence on medical technology, receipt of care by 2 or more subspecialists, and family need.

den, and diminished quality of life (Kuo, et al., 2011). As such, developing strategies to increase value by improving access to care, health outcomes, and the patient and family experience of care, while reducing health care costs, is critically important for this population. To date, many demonstration projects on value-based payment and service delivery systems have focused on adult populations and specific health conditions (Centers for Medicare and Medicaid Services, 2012; Keckley et al., 2011; Rau, 2014), but there is limited empirical evidence on value-based care and value-based payments for pediatric practice and populations. This policy brief provides: 1) an overview of the landscape of value-based purchasing (VBP); 2) recommendations for monitoring and evaluating these innovative financing strategies and care delivery models and the potential impact on children with medical complexity.

Background

The implementation of the ACA has facilitated shifts in the structure and design of both public and private health care delivery and payment systems. In order to curb health care spending and improve quality of care and health outcomes, there has been tremendous attention to value as a criterion for health insurance options offered by payers. In addition, there is a focus on measuring the efficacy of health care delivery, health system payment methods, and the patient experience of care. Value-based purchasing strategies, primarily (1) pay-for-performance (P4P); (2) accountable care organizations (ACOs), and (3) bundled payments, are geared towards achieving value by reducing costs while improving quality based on a predetermined set of performance standards including quality and cost measures (Colla, 2014; Damberg et al., 2014; Keckley, et al., 2011). Each of these strategies is discussed below.

• Pay for performance (P4P)

In pay-for-performance models, hospitals, medical groups, physicians, and other healthcare providers are rewarded with higher payments when the services they provide to individual patients meet a series of pre-established performance measures. Conversely, payments are reduced when provider organizations and physicians do not meet the performance measures or who do not improve performance from year to year (Damberg et al., 2014; Keckley et al., 2011). These quality, utilization, and efficiency or cost measures vary by health care settings and include: clinical process and intermediate outcomes (e.g., Joint Commission measures, Healthcare Effectiveness Data and Information Set (HEDIS) measures) (National Committee for Quality Assurance, 2015; The Joint Commission, 2015), patient safety measures (e.g., health care associated infections, surgical site infections) (Agency for Healthcare Research and Quality, 2015), health care utilization (e.g., emergency department use), patient experience of care (e.g., Consumer Assessment of Healthcare Providers and Systems (CAHPS®) Survey) (Agency for Healthcare Research and Quality, 2014; Centers for Medicare & Medicaid Services, 2013), outcomes (e.g., readmissions), and structural measures (e.g.,



The Affordable Care Act and Value-Based Purchasing: What's at Stake for Children with Medical Complexity? a publication of the Catalyst Center: Improving Financing of Care for Children and Youth with Special Health Care Needs, August, 2015 Page 2 of 13 patient centered medical home (PCMH) certification, National Committee for Quality Assurance (NCQA) certification, Health Information Technology (HIT) adoption, or meaningful use HIT).

Accountable care organizations (ACOs)

Accountable care organizations are groups of doctors, hospitals, and other health care providers who work together to provide coordinated and integrated care to a defined population of patients they serve across health care settings (Centers for Medicare and Medicaid Services, 2011). These groups are held accountable for the costs and quality of care through shared savings payments or populationbased payment models. The shared provider-payer risk payment model moves away from the traditional fee-for-service approach by aligning provider reimbursements with incentives for health outcomes, quality of services, and total cost-of-care performance targets (Centers for Medicare and Medicaid Services, 2011; Damberg et al., 2014; Delbanco et al., 2011). For example, pilot ACO programs have utilized 33 quality measures that comprise patient/caregiver experience, care coordination/patient safety, preventive health, and at-risk population domains (Centers for Medicare and Medicaid Services, 2014b). The measures include HEDIS clinical processes and intermediate outcomes and CAHPS survey measures to assess the patient experience of care. In addition, patient safety, hospital admissions, and readmissions are assessed. The emergence of public (Medicare and Medicaid) and private sector (commercial insurers) ACOs is relatively new, and both sectors continue to develop new shared financial risk approaches (Delbanco, et al., 2011).

• Bundled payments

Bundled payment arrangements allow hospitals, physicians, and other health care providers to be paid based on the expected costs of a clinically defined episode of care or a bundle of related services (Damberg et al., 2014). Bundled payment models are negotiated and agreed upon by the payer and provider. Models can include discounted episodes of care such as those offered by Medicare based on hospital inpatient payments, retrospective payments, which require the reconciliation of actual and target health care spending, and prospective payments that include all services for defined clinical condition episodes (Centers for Medicare and Medicaid Services, 2014a; Damberg, et al., 2014). These models hold providers accountable for performance on cost and condition/procedure performance measures. Ultimately, providers work together to improve the quality and efficiency of care by providing preventive care and chronic care management, reducing unnecessary hospitalizations, using community-based resources, and improving care transitions. Due to the nature of bundled payments, quality measures vary by health care setting and condition and commonly include hospital settings. readmissions, length of stay, and total cost of care.

A summary of 2015 HEDIS and quality measures specific to children and adolescents is included in Appendix 1.

The Centers for Medicare and Medicaid Services (CMS) has led the charge on VBP by funding pilot programs for Medicare populations in hospital settings (Thompson, 2011). These hospital value-based purchasing initiatives seek to improve the quality of care for the highest cost patients who may require multiple procedures and services. Under VBP programs, CMS is able to incentivize hospitals to provide enhanced quality care while reducing spending. Other payers have also developed small- and large-scale pilot programs for different populations across different health care settings. For example, some Patient Centered Medical Home (PCMH) Initiatives developed quality and cost measures to focus on heart disease, diabetes, hypertension, and other highly prevalent chronic conditions among adults (Damberg, et al., 2014). Despite various VBP pilots, there is limited evidence to date about the impact of VBP in primary care (Chien, Eastman, Li, & Rosenthal, 2012; Rosenthal, Li, Robertson, & Milstein, 2009) or hospital settings (Ryan, 2009; Sutton et al., 2012) and if it helps advance the Triple Aim as set out in the ACA.

Few studies have been conducted on the impact of ACOs and bundled payments, as these programs are fairly new to the market. A CMS press release identified that the Pioneer ACO model, which targeted a Medicare population, succeeded in improving quality of care and reducing costs (Centers for Medicare and Medicaid Services, 2013). However, it is unclear whether this is an actual improved performance due to ACO design or a pseudo effect due to a higher baseline performance. A small number of studies have examined the impact of bundled payments, but the results are not generalizable across settings, conditions, and populations (Damberg, et al., 2014). More importantly, there is little empirical evidence of VBP strategies on pediatric populations including children with medical complexities.

The ACA payment reform provisions include elements of value-based purchasing in both the public and private sectors. The expansion of VBP models allows for the inclusion of a broader set of metrics and a wider range of incentive strategies for public and private payers, providers, and patients (Damberg et al., 2014; Keckley et al., 2011). Further, the expanded focus of VBP provides an opportunity to explore the impact on new populations such as children with complex health care needs.

Monitoring and evaluating value-based purchasing and service-delivery models and the impact for children with medical complexity

To date, VBP initiatives have primarily focused on improving quality and cost containment for adult populations in hospital settings. Conceptual frameworks for developing, implementing, and assessing the effects of VBP programs have also been developed (Damberg et al., 2014; Dudley et al., 2004; Fisher, Shortell, Kreindler,



The Affordable Care Act and Value-Based Purchasing: What's at Stake for Children with Medical Complexity? a publication of the Catalyst Center: Improving Financing of Care for Children and Youth with Special Health Care Needs, August, 2015 Page 4 of 13 Van Citters, & Larson, 2012; McHugh & Joshi, 2010). These frameworks identify various VBP approaches that can be designed or structured (program features and goals, measures, settings) and external factors (payment policies, incentives, regulation) that need to be considered to achieve short-, intermediate-, and long-term outcomes. Other than initiatives such as the Center for Medicare & Medicaid Innovation (CMMI) program (Children's Hospital Association), and the High-Value Care for Medically Complex Children program funded by the Robert Wood Johnson Foundation (University of Pittsburgh Center for High-Value Health Care (UPMC), 2014) there are very few VBP demonstrations that target children. With limited empirical evidence in the application of value based purchasing among child populations, who have different epidemiological and health care utilization patterns from adults, it is imperative to have systematic planning, implementation, and evaluation efforts of these financing and service delivery models in pediatric practice in order to achieve optimal results relative to health outcomes, cost, and quality care. In addition, the structure and function of these financing and care models need to align with key stakeholders' (providers, patients, families, caregivers, purchasers, and payers) priorities.

Existing frameworks guide the research about the structure and process of VBP policies and programs. (114th Congress 1st Session, 2015; Damberg, et al., 2014; VanLare & Conway, 2012). Successful value-based purchasing in health care delivery and payment systems for children requires a pediatric value-based multidimensional lens. Among multiple stakeholders, including families/caregivers, providers, and payers, there is widespread recognition that the current health system infrastructure and payment models are not optimally effective in meeting the needs of children with medical complexity and may even exacerbate the growing health care inequities for this subset of children with special health care needs. These stakeholders may have varying definitions of value; therefore, developing and implementing successful value based financing strategies will require multidimensional perspectives. Stakeholders must at a minimum define the goal(s) of VBP for children with medical complexity, as this would help establish the processes and accompanying quality measures necessary to meet them. Based on what is known about VBP programs to date, we provide recommendations for monitoring and evaluating valuebased financing and service delivery for this population.

1. Population metrics

Value-based purchasing initiatives for the population of children with medical complexity (McPherson et al., 1998), must include measures related to enhanced quality of care, improved patient experience of care and reduced spending. A key feature of value-based purchasing strategies is increased accountability among health care delivery systems and payers to ensure better health outcomes and reduced costs. As payment reform initiatives are implemented, we need to ensure that a focus on accountability does not negatively impact the health of children



The Affordable Care Act and Value-Based Purchasing: What's at Stake for Children with Medical Complexity? a publication of the Catalyst Center: Improving Financing of Care for Children and Youth with Special Health Care Needs, August, 2015. with medical complexity. Value-based purchasing strategies need to take into account the age distribution of children, the case mix/level of severity among the group, and the types of services provided. Case mix measures should account for types and duration of care and should include a multidimensional system of health services that includes functional supports and social services provided in an evolving system of care over the life course.

In addition, the impact of each VBP method must be taken into account. Pay for performance, for example, has potential benefits for children with medical complexities. The financial incentives that care providers, medical groups, and hospitals receive for meeting targeted benchmarks may motivate them to work together, resulting in increased coordination of care. However, the pre-established performance benchmarks must be specific to children with medical complexities due to their unique health care needs and costs as compared with typically developing children and adults with chronic illnesses. The same is true for bundled payments. It will be critically important to identify and classify episodes of care for children with complex health needs, where possible. In addition, condition-specific episodes of care for adults do not necessarily translate for children, further supporting the need for a child-specific definition.

Accountable care organizations may be beneficial for children with medical complexity. Similar to P4P, ACOs may lead to increased care coordination and quality of care as primary care clinicians and specialists work together to reduce duplication of services and prevent gaps in care. However, if the child's primary care provider or specialty providers are not part of the same ACO, the child and family may experience a lack of continuity of care and need to switch providers.

2. Clinical and quality metrics

The concept of value for children with medical complexity requires the measurement of performance on specific health care processes and outcomes. Stakeholders must clearly define the most critical outcomes on clinical care processes, safety, and patient experience in health that are applicable to children with complex health care needs. For example, most clinical and quality measures in hospital settings such as hospital readmissions, or emergency department utilization may not be appropriate. Children with medical complexity are high health care utilizers and use a disproportionate number of services in emergency department and hospital settings (Berry et al., 2013; Berry et al., 2014). Developing metrics for children with medical complexity requires understanding how the collective experience of this subset of children differs from children overall. Core measure sets could include aspects of care such as care coordination, patient experience, functional status, and costs (VanLare & Conway, 2012). Large health plan data could provide an opportunity for an understanding of metrics to determine how many procedures are expected or excessive for specific conditions.



The Affordable Care Act and Value-Based Purchasing: What's at Stake for Children with Medical Complexity? a publication of the Catalyst Center: Improving Financing of Care for Children and Youth with Special Health Care Needs, August, 2015 Page 6 of 13 In the current VBP landscape, rarely can we find measures that focus on evaluating patient outcomes or costs for children with medical complexity (McHugh & Joshi, 2010). The CAHPS Item Set for Children with Chronic Conditions, developed through the Child and Adolescent Health Measurement Initiative (CAHMI), is one method for identifying and addressing the needs of children with chronic conditions using the Maternal and Child Health Bureau's definition of children with special health care needs (Agency for Healthcare Research and Quality, 2008). However, if we are to enhance outcomes for children with medical complexity through incentives, we should develop and utilize more performance measures that assess relevant outcomes. The prerequisite for doing so, however, is advanced data systems that can facilitate the capture and report of outcome data for children with medical complexity. The investment required to develop these data systems will be significant.

Conclusion

The goal of the Triple Aim is to improve quality of care, reduce costs, and improve the patient experience of care. While not all VBP strategies address the patient experience of care, VBP provides a way to measure and improve quality while reducing the cost of health care. Vulnerable populations such as children with medical complexity need to be specifically considered when designing and implementing VBP models in order to achieve these goals. Current VBP models are limited in their scope and do not adequately address pediatric populations and different subpopulations of children such as CSHCN and children with medical complexity. As we move towards the implementation of VBP programs across different settings and with a wide array of populations, providers, payers, Title V and other partners within the system of services for CSHCN, including families, need to work together to develop ways to evaluate and monitor these programs, which have the potential to improve quality of care and reduce costs for children with the most complex health care needs.

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Appendix 1: Example of Pediatric Quality Measures

Measures specific to children and adoles- cents	Applicable to:		
	Commercial	Medicaid	Medicare*
Effectiveness of Care			
Weight assessment and counseling for nutrition and physical activity for children/adolescents	Yes	Yes	
Childhood immunization status	Yes	Yes	
Immunization for adolescents	Yes	Yes	
Human Papillomavirus Vaccine for female adoles- cents	Yes	Yes	
Lead screening in children		Yes	
Non-recommended cervical cancer screening in adolescent females	Yes	Yes	
Appropriate testing for children with pharyngitis	Yes	Yes	
Appropriate treatment for children with upper respiratory infection	Yes	Yes	
Follow-up care for children prescribed ADHD medication	Yes	Yes	
Use of multiple concurrent antipsychotics in chil- dren and adolescents	Yes	Yes	
Metabolic monitoring for children and adolescents on antipsychotics	Yes	Yes	
Access/Availability of Care			-
Children's and adolescents' access to primary care practitioners	Yes	Yes	
Use of first-line psychosocial care for children and adolescents on antipsychotics	Yes	Yes	
Experience with Care			
CAHPS health plan survey 5.0H, child version	Yes	Yes	
Children with chronic conditions	Yes	Yes	
Utilization and Relative Resource Use			
Well-child visits in the first 15 months of life	Yes	Yes	
Well-child visits in the third, fourth, fifth and sixth years of life	Yes	Yes	

*HEDIS measures are assessed for children enrolled in commercial and Medicaid plans. However, it is important to note that some children with medical complexity can be dualeligible beneficiaries.

Source: NCQA. *HEDIS 2015 Measures: Summary Table of Measures, Product Lines and Changes.* 2015 [cited 2015 July 27]; Available from: http://www.ncqa.org/Portals/0/ HEDISQM/Hedis2015/List_of_HEDIS_2015_Measures.pdf



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