Payment Reform on the Ground: Lessons from the Blue Cross Blue Shield of Massachusetts Alternative Quality Contract

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EXECUTIVE SUMMARY

Rethinking how the U.S. healthcare system pays for care is critical to achieving better outcomes at lower costs. As healthcare stakeholders explore new ways to achieve this goal, existing payer models can provide valuable guidance. In particular, the Alternative Quality Contract (AQC), launched by Blue Cross Blue Shield of Massachusetts (BCBSMA) in 2009, seeks to drive quality, accountable, efficient care. Under the AQC, BCBSMA holds providers accountable to a global, risk-adjusted budget, plus incentives for quality. In turn, providers agree to a two-sided risk model that allows them to share not only in savings, but also in the cost of care that exceeds targets.

The AQC has been studied more than other innovative payment models. In addition, evaluations of the AQC span multiple years. To capture lessons learned from the AQC, including lessons that could apply to other payers and markets, Avalere reviewed existing literature and conducted interviews with key thought leaders, including individuals with executive-level experience serving as part of key federal government agencies, major health plans, and best-in-class providers. Based on our research, Avalere identified the following observations that can inform future payment and delivery innovations:

- **Payment reform programs can significantly change provider behavior.** Well-designed models can curb medical spending and promote quality improvement across a range of provider organizations.
- **Changing behavior requires providers to have "skin in the game," but payers need to meet providers where they are today.** A two-sided risk model, in which providers can share in savings but must also repay deficits, grabs provider attention and can help motivate significant change. Budgets based on historical spending and meaningful incentives for hitting quality targets also encourage providers to take on risk.
- **New payment models should hold providers accountable for the full range of patient care costs.** Excluding certain types of services (such as prescription drugs) dilutes the incentive to control spending and perpetuates uncoordinated, inefficient care.
- **Providers can implement meaningful change, but need time, consistent goals, and a similar commitment from payers to do so.** Providers need sufficient time to experiment with different solutions and approaches. Longer-term spending and quality targets also increase provider buy-in and demonstrate a clear commitment from the payer.

- **Providers need detailed spending and quality information and clinical support to take on risk.** Providers should take on greater financial risk for their patients' care over time, but must be empowered by real-time access to data and care redesign support.
- **Payers with significant local presence are best positioned to implement innovative payment models.** Market share is critical in enabling payer investment and focusing provider attention.

Payers and policymakers can transition toward rewarding quality and efficiency by leveraging existing programs. Models like the AQC could serve as potential building blocks for collaborations that align incentives across providers and several payers. Many aspects of the AQC model, including provider engagement, availability of technical assistance, and structured payment incentives, are relevant to other payers and markets. Indeed, the AQC and other successful commercial ventures could serve as backbones for pilots that engage the Medicare program and other government payers, with the potential to transform healthcare delivery and spending.

ABOUT THE ALTERNATIVE QUALITY CONTRACT

The Alternative Quality Contract (AQC) seeks to reduce health system costs while improving quality and health outcomes through a combination of payment incentives and provider support tools. BCBSMA established an initial target of reducing healthcare spending growth by 50 percent over five years, but found that providers participating in the AQC can achieve this goal within four.

Core Elements

The AQC is built around several core elements, including: a global budget structure; substantial performance incentives; a long-term contract between BCBSMA and providers; and clinical and information support.

Global Budget	• Covers all medical expenses for the group's patient population • Set to curb spending growth relative to expected levels • Level of risk varies by contract; most groups share savings and losses with BCBSMA
Performance	• Opportunity for significant incentives based on performance against quality measures • The better a group's performance, the greater share of any savings—and the smaller share of any losses—the group receives
Long-term Contract	3-5 year contract with fixed spending, quality targets
Information on Spending, Quality; Regular Clinical Support	Group-specific reporting and analysis, dedicated support team to review performance and discuss improvement goals and strategies, periodic educational and best-practice sharing forums

The AQC shares features with other population health management programs and informed the development of the current Medicare Shared Savings Program (MSSP).[i] Notably, however, the AQC offers a distinct risk and information-sharing structure from MSSP. Additionally, the models differ in how budget targets and performance benchmarks are set (see Appendix).

Program Participation

Participation in the AQC is voluntary but widespread. Currently, more than 85 percent of primary care physicians (PCPs) and nearly 90 percent of specialists in BCBSMA's closed HMO network participate in the AQC. Collectively, they care for nearly 700,000 BCBSMA

HMO members. Participation is also stable; provider groups who joined the AQC have renewed the contract. BCBSMA is exploring how to expand the model to members enrolled in open-network plans.

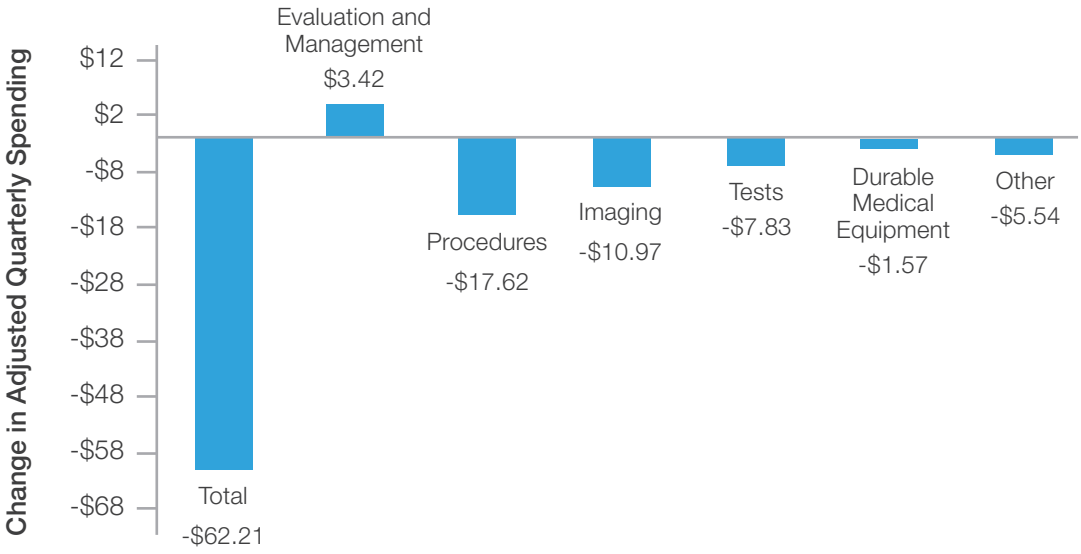
KEY OBSERVATIONS

Avalere consulted with 17 opinion leaders, including individuals with executive-level experience at key federal government agencies, major health plans, and best-in-class providers, to gain additional insight into BCBSMA's experience with the AQC and its national relevance. Based on these discussions and the existing literature, Avalere identified six observations that should inform ongoing conversations about payment reform.

Payment reform programs can significantly change provider behavior. The AQC has been examined more extensively than other global budget models; researchers have now examined up to four years of program outcomes.[ii] These studies show that the program has achieved its goals of improving quality while curbing spending growth. Specifically, studies show that:

- **AQC provider groups slow spending.** AQC groups bring down spending growth compared to providers outside the contract.[iii, iv, v, vi] Initially, savings come from changes in referral patterns (i.e., directing patients to lower-cost providers for procedures and services), but providers gradually reduce use of services—particularly advanced imaging, procedures, and tests—with no evidence that reduced utilization compromises the quality of care.[vii] The most recent evaluation of the AQC found that AQC groups achieved a 10 percent savings on medical spending by the fourth year.[viii]

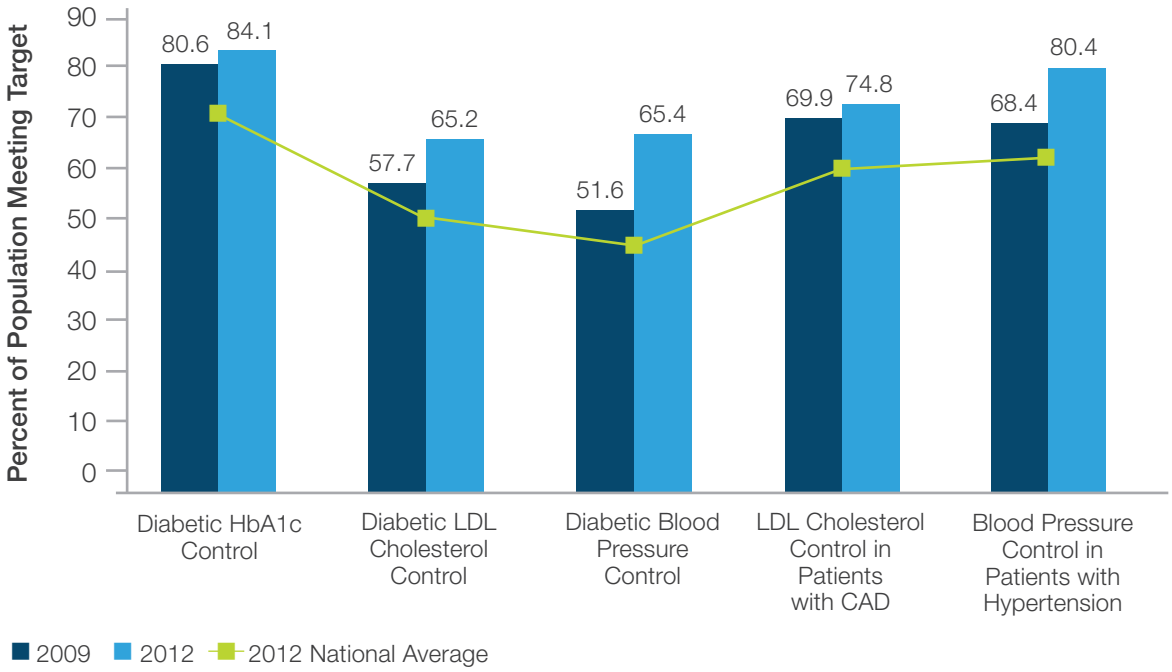
Average Change in Spending per Enrollee, 2009 AQC Cohort vs. Control Group



Source: Song, Z., Rose, S., Safran, D. G., et al. "Changes in Health Care Spending and Quality 4 Years into Global Payment," The New England Journal of Medicine, 371(18)2014; 1704-14. Pecentages based on average post-intervention claims in the AQC cohort.

- **AQC provider groups improve quality of care.** AQC provider groups have demonstrated immediate (year 1) and sustained improvements in quality, though improvement is not uniform across all measures.[ix, x, xi] Substantial improvements on measures like blood pressure and cholesterol control are likely saving lives. Interestingly, provider performance does not tend to improve on measures not tied to payment, demonstrating the importance of incentives.[xii]

Average Performance on Outcome Measures, 2009 AQC Cohort vs. Control Group



Source: Song, Z., Rose, S., Safran, D. G., et al. "Changes in Health Care Spending and Quality 4 Years into Global Payment," The New England Journal of Medicine, 371(18)2014; 1704-14. CAD = coronary artery disease

- **The AQC is effective for a range of provider types and patient populations.** AQC participants showed cost savings and quality improvement across provider groups of varying size, level of integration, previous experience with risk, and patient population characteristics, including patients of varying socioeconomic status.[xiii]
- **AQC provider groups positively impact patients outside of the contract.** Although the AQC only covers BCBSMA's commercial enrollees, research shows that AQC groups change some of their care management practices broadly across their patients, leading to cost savings for other populations (e.g., Medicare beneficiaries). This spillover effect is larger on spending than on quality.[xiv, xv]

Changing behavior requires providers to have "skin in the game," but payers need to meet providers where they are today. Most thought leaders agreed that a two-sided risk model—in which providers can share in savings, but must also repay deficits—is necessary to grab provider attention and motivate changes in behavior, particularly referral and practice patterns. Not all providers are ready to take on risk, and payers

have an important role to play in positioning providers for success. Regardless, aligning incentives and integrating providers fully into the discussion about how to drive value should be the goal. As one expert said:

> *"You get more savings, more quality improvement, and more practice transformation at higher levels of risk."*

Experts also agreed that payers trying to implement two-sided risk need to "meet providers where they are" and noted that budgets based on historical spending make risk-based contracts more appealing to providers. However, historically based spending targets can "bake in" inefficiency in provider spending and/or payment rates, making them more attractive to less efficient providers and less attractive to providers who are already controlling costs. Therefore, several experts suggested that payers try to move from budgets based on historical spending to a standard based on average performance or another fixed target. Along these lines, the AQC now requires providers to "beat trend" in terms of their spending growth—that is, providers must outperform other network groups, many of whom are also participating in the AQC. Interviewees also suggested that payers explore options to reduce the total cost of care (i.e., achieving an absolute reduction in real, inflation-adjusted spending) versus spending growth.

Payers and providers need to take into account unexpected costs and events. In a risk-based contract, adjusting the budget to guard against these costs is critical, particularly for smaller groups, to ensure that providers are not penalized for treating higher-need individuals. AQC budgets are adjusted for patient risk, and providers groups are also required to have stop-loss or reinsurance coverage.

In addition to using historical spending to establish budgets, the AQC allows providers to earn substantial payments based on quality. Several thought leaders emphasized the importance of quality payments and noted that no provider should "make money in the context of a quality decrease." The size of the AQC quality incentives is likely very appealing to providers, though it has decreased over time. Performance incentives in the AQC are paid on a monthly basis and reconciled at the end of the year, allowing providers to use these funds sooner. In addition to providing a strong financial incentive, the AQC's emphasis on quality helped physician leaders motivate their colleagues to join the program. Quality-based payments to AQC groups outstripped savings in the first years of the program and resulted in higher total outlays for BCBSMA, but savings made up for quality incentives by the fourth year. Other payers could find it challenging to fund up-front payments based on quality while they wait for savings, and might need to explore non-traditional opportunities (e.g., participating in a federally or state-funded pilot program) to support a similar approach.

The AQC's budget approach and quality incentive payments likely contributed to its high rate of provider participation. However, experts believed that similar models should transition providers to greater risk over time. BCBSMA offers providers a range of risk options, with most AQC groups now at risk for 50 to 80 percent of savings or losses (AQC groups that assume less than 100 percent risk share both savings and deficits with BCBSMA). BCBSMA encourages providers to bear more risk over time, but allows the shift to be provider-led. Other payers could take a more active approach, such as by funneling patients to groups that are willing to accept greater risk.

New payment models should hold providers accountable for the full range of patient care costs. Experts also agreed that providers should be accountable for all patient costs, and that excluding certain types of services (such as prescription drugs) could dilute the incentive to control spending. Indeed, one thought leader shared:

> *"The more you include [in the budget] the more the incentive for the provider to really think holistically about the patient's care…so that it's high-quality and affordable."*

Importantly, holding providers accountable for all patient care costs is easier in markets where the healthcare system is organized—that is, where primary care providers and specialists have strong relationships with hospitals, ancillary service providers, and others. In addition, payers that have visibility into all patient claims will be better equipped to pay providers through a global budget. In the Medicare program and in some state Medicaid programs, for example, prescription drugs are treated and paid for differently than medical services, making it more difficult—but not impossible—to integrate these benefits into a single budget.

Providers can implement meaningful change, but need time, consistent goals, and a similar commitment from payers to do so. Providers need time to experiment with potential solutions, and to realize the benefits of interventions that require substantial up-front investment. For example, integrating behavioral health services can produce more coordinated, higher-quality care.[xvi] Many AQC groups have hired social workers or behavioral health specialists who focus on coordinating care for patients who need these services. Integrating an entire category of benefits and services is a substantial undertaking, and providers must have adequate time to make adjustments without immediate financial consequences.

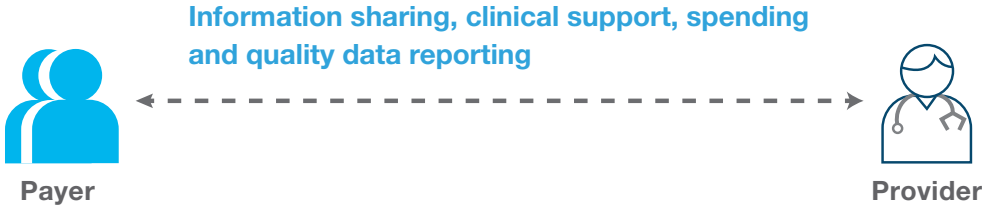
Aligning provider incentives with longer-term spending and quality targets is also likely to increase provider buy-in. Unlike other models in which spending or quality targets are reassessed each year, AQC contracts contain fixed spending and performance goals. These targets do not change based on provider performance or other factors. Several experts favored this approach, while others preferred an option to readjust (for example,

if participating providers achieved substantial savings in the initial years, or market dynamics shifted). One interviewee commented:

> *"[A] substantial, guaranteed contract makes sense when investment is required to change models of care delivery."*

Finally, a longer-term arrangement demonstrates a clear commitment from the payer. Experts noted that aligning incentives through the AQC improved payer-provider communication, because it made providers—particularly smaller groups—and BCBSMA more reliant on each other.

Providers need detailed spending and quality information and clinical support to take on risk. Experts agreed that providers must be positioned for success via access to data and clinical support. Data timeliness and usability are critical. Larger provider groups may have—or be better positioned to purchase—software and tools to analyze, monitor, and act on patient data. Smaller groups, however, will likely look to payers to provide analytic resources.



The payer's role should not be limited to delivering information. Payers must also participate in care redesign. Each AQC group has a dedicated BCBSMA team that provides analytic and clinical support. The teams work across multiple provider groups, and often relay lessons learned and strategies from one group to another. BCBSMA also convenes multi-group sessions where providers can interact. Overall, one expert emphasized:

> *"Providers need more than a claims dump—they need the plan to package and synthesize the information so that they can act on it."*

Payers with significant local presence are best positioned to implement innovative payment models. Experts agreed that unless a payer covers a significant portion of a provider group's patients, competing payer initiatives make it hard for providers to focus on specific cost and quality priorities. Commercial plans will need significant market share to make innovative payment models work. Local market presence also means that payers are familiar with each provider group's capabilities. BCBSMA is able to adjust its approach based on the group's risk-readiness, experience, patient population, and

other factors. Adopting a group-specific approach could be challenging in a larger-scale (i.e., national) program, but allows BCBSMA to balance provider interest with program financial goals.

CONSIDERATIONS FOR FUTURE INITIATIVES

Applicability of the AQC

Multiple peer-reviewed studies show that the AQC can reduce spending growth while improving quality of care. Avalere's interviews revealed that experts are interested in ongoing evaluation of the AQC to ensure that these results are sustainable in the long term, but found the program's outcomes to date compelling for the national discussion on payment reform. As one expert noted:

> *"My view is that the AQC is extremely promising as a guide to payment reform in other settings."*

In order for a payment model to be broadly applicable, other payers in different markets must be able to expect the same or similar results. Massachusetts, where the AQC operates, is a unique healthcare market in many ways given its historically high spending and the presence of several large, nationally recognized health systems, provider groups, and health plans. Further, the state's healthcare reforms acutely focused most healthcare stakeholders on containing costs, likely encouraging providers to experiment with new payment and delivery models. Experts interviewed for this paper agreed that the Massachusetts environment was important, but not necessary, in enabling the AQC's success. Indeed, one interviewee shared:

> *"It's worked in a heterogeneous world of providers in Massachusetts, from small provider groups to large health systems, and for all types of practices to generate savings shows that it's a flexible and adaptive and effective payment methodology."*

Finally, the AQC has been implemented for patients enrolled in HMO products, where the patient is required to identify a PCP. BCBSMA is exploring how to transition the model to its Preferred Provider Organization (PPO) products. PPOs are more common nationwide but do not require the enrollee to select a PCP, making attribution less straightforward. The Medicare program has confronted the same challenge in the Pioneer and MSSP programs, since beneficiaries in traditional Medicare do not have

a named PCP. Instead of relying on patient selection, BCBSMA will—like CMS—use claims data to define patient populations and attribute them to AQC groups. Testing to date with patients and providers suggests that this approach produces accurate results.

Design and Implementation Considerations

New payment programs like the AQC are gaining traction, but in most places fee-for-service payment remains the dominant system. As discussed above, the market presence of the payer is a critical success factor for payment reform. Combining the enrollment of several payers in a multi-payer pilot—with the potential for smaller payers to participate—could capitalize on the opportunity these innovative models present. The Affordable Care Act may provide a path forward for public-private partnerships by charging the Secretary of Health and Human Services with testing innovative payment models, including models that rely on "risk-based comprehensive payment."[xvii]

A multi-payer collaboration that follows the model of the AQC would need to address a number of design and implementation issues, including:

- **Synchronizing how patients are assigned to provider groups.** Patient assignment based on "real time" provider affiliation is an important feature of the AQC. Knowing who is covered by the contract allows providers to focus their efforts and makes tracking and adjusting performance more predictable. In addition, this approach captures new patients without holding providers accountable for those who have left the practice.
- **Aligning quality measures, data collection, and analytics across payers.** Providers in a multi-payer pilot would likely need to report against a single, consolidated set of quality metrics to maximize quality improvement. Experts consistently agreed that providers should report on fewer, more meaningful quality measures. One expert encompassed this thinking, saying:

  > *"In general, simpler is better. Fewer metrics, and clearer definitions, and standardization across payers."*

- **Allowing group-specific variation in goals and expectations.** Groups participating in the AQC can take on different levels of risk. Public payers like Medicare would likely need to adopt a consistent approach across providers; for example, with respect to how much risk providers assume. Adopting a uniform approach across all provider groups could make it challenging to maximize the financial benefits of the model, because the average level of risk will necessarily be lower than what some groups can achieve.

- **Providing on-the-ground support.** Payers with strong local market presence can use their existing relationships with provider groups to gain buy-in and support ongoing improvement. Achieving a similar level of visibility and engagement at the group level could be difficult—but not impossible—for public programs.
- **Engaging the patient through value-based insurance design.** As a private payer, BCBSMA can engage patients through benefit and network design in a way that would require creative policy solutions in public programs. For example, BCBSMA can modify patient cost sharing so that patients are encouraged to use lower-cost services, complimenting provider efforts.

The federal government has made a substantial investment in new payment models via ACOs across the country. If a multi-payer pilot in Massachusetts with the AQC as its backbone could be successful, policymakers would have an intriguing and unique option to test risk-based contracting models.

Payment reform models can significantly change provider behavior.

Providers should have "skin in the game," but payers need to meet providers where they are.

Providers should be accountable for all healthcare costs.

Providers can implement meaningful change, but need time, consistent goals, and partnership from payers.

Successfully managing risk requires information and clinical support.

Payers with significant local presence are best positioned to implement innovative payment models.

APPENDIX

Comparison of AQC, MSSP Models

	ALTERNATIVE QUALITY CONTRACT	MEDICARE SHARED SAVINGS PROGRAM
Risk Structure	2-sided (savings and losses)	1-sided (savings only); must transition to 2-sided over time
Budget Scope	All services	All services except outpatient prescription drugs.
Budget Origin	Each AQC group's historical spending; adjusted for risk. Each year's spending growth target tied to regional trend.	Based on spending for patients who would have been assigned to ACO in prior years; adjusted for risk.
Quality Measure Set	64 process, outcome, and experience measures; hospital and ambulatory care measures included.	33 measures related to patient and caregiver experience, care coordination and patient safety, preventive health, and at-risk populations.
Quality Incentives	Separate payments for quality based on set of 5 performance thresholds; paid monthly and reconciled at year-end. Annual thresholds fixed during contract period.	Providers must achieve annual quality targets based on national data. Share of savings depends on overall quality performance. No separate payments for quality.
Patient Assignment	Updated monthly based on patient's active PCP selection.	Currently retrospective, based on beneficiary's use of primary care services.

REFERENCES

i According to several interviewees familiar with the development of MSSP.

ii Based on a structured literature review conducted by Avalere Health. Avalere Health searched for studies examining the impact of global budgets on spending and/or

iii Song, Z., Rose, S., Safran, D. G., et al. "Changes in Health Care Spending and Quality 4 Years into Global Payment," The New England Journal of Medicine, 371(18) 2014: 1704 – 14.

iv Song, Z., Safran, D. G., Landon, B. E., et al. "The Alternative Quality Contract, Based On A Global Budget, Lowered Medical Spending and Improved Quality," Health Affairs 31(8) 2012: 1–10.

v Song, Z., Safran, D. G., Landon, B. E., et al. "Health Care Spending and Quality in Year One of the Alternative Quality Contract," The New England Journal of Medicine, published online July 13, 2011.

vi Two studies showed no significant change in pediatric or prescription drug spending, respectively. See Chien, A.T., Song, Z., Chernew, M., et al. "Two-year Impact of the Alternative Quality Contract on Pediatric Health Care Quality and Spending."Pediatrics, 133(1), 2014: 96-104 and Afendulis, C., Fendrick, A.M., Song, Z., et al. "The Impact of Global Budgets on Pharmaceutical Spending and Utilization: Early Experience from the Alternative Quality Contract." INQUIRY, January – December 2014 (51), first published January 1, 2014

vii Song, Z., Rose, S., Safran, D. G., et al. "Changes in Health Care Spending and Quality 4 Years into Global Payment," The New England Journal of Medicine, 371(18) 2014: 1704 – 14.

viii Song, Z., Rose, S., Safran, D. G., et al. "Changes in Health Care Spending and Quality 4 Years into Global Payment," The New England Journal of Medicine, 371(18) 2014: 1704 – 14.

ix Song, Z., Rose, S., Safran, D. G., et al. "Changes in Health Care Spending and Quality 4 Years into Global Payment," The New England Journal of Medicine, 371(18) 2014: 1704 – 14.

x Song, Z., Safran, D. G., Landon, B. E., et al. "The Alternative Quality Contract, Based On A Global Budget, Lowered Medical Spending and Improved Quality," Health Affairs 31(8) 2012: 1–10.

xi Song, Z., Safran, D. G., Landon, B. E., et al. "Health Care Spending and Quality in Year One of the Alternative Quality Contract," The New England Journal of Medicine, published online July 13, 2011.

xii Chien, A.T., Song, Z., Chernew, M., et al. "Two-year Impact of the Alternative Quality Contract on Pediatric Health Care Quality and Spending." Pediatrics, 133(1), 2014: 96-104.

xiii Lewin, J. "The Impact of the Massachusetts BCBS Alternative Quality Contract on Lower Socioeconomic Status Populations," Lewin and Associates – Health Innovation Strategies, LLC, 2013.

xiv McWilliams, J., Landon, B., Chernew, M. "Changes in Health Care Spending and Quality for Medicare Beneficiaries Associated With a Commercial ACO Contract," The Journal of the American Medical Association 310(8) 2013: 829-836.

xv Other studies examining spillover effects on Medicare FFS populations from increasing managed care (i.e. HMO) penetration suggest that cost savings in total Medicare FFS spending range from one to nine percent. Source: Chernew, Michael, Baicker, Katherine, and Martin, Carina. "Spillovers in Health Care Markets: Implications for Current Law Projections." Last Accessed December 30, 2014. Study available here: http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/ReportsTrustFunds/downloads/spillovereffects.pdf

xvi National Quality Strategy: 2014 Annual Progress Report to Congress. Principle 8. Available at: http://www.ahrq.gov/workingforquality/nqs/principles.htm.

xvii Affordable Care Act, Section 3021(b)(2)(B)(ii)

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