



## Topic Brief: Healthcare Spending Efficiency and Value

**Date:** 1/13/2020

**Nomination Number:** 861

**Purpose:** This document summarizes the information addressing a nomination submitted on 6/7/2019 through the Effective Health Care Website. This information was used to inform the Evidence-based Practice Center (EPC) Program decisions about whether to produce an evidence report on the topic, and if so, what type of evidence report would be most suitable.

**Issue:** Under fee for service healthcare payment, providers are paid based on individual services provided. An Alternative Payment Model (APM) (also called Value Based Purchasing, Pay for Performance, or Bundled Payments) is a healthcare payment system that aims to pay providers based on quality of care. Public and private payers are increasingly adopting the models that may include components of quality reporting, payments for bundles of services and risk based incentives and penalties. A review of the impact of these programs so far and how the programs defined value and adjusted for risk will help inform the next generation of alternative payment models.

**Program Decision:** The EPC Program will not develop a new systematic review because we found systematic reviews addressing the concerns of this nomination

### Key Findings

We found seven systematic reviews published in the last year that largely cover the scope of this nomination.

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### Background

As is widely recognized the cost of health care is increasingly unaffordable. Explanations for this include paying for services that are unnecessary and wide variation in health care pricing under the fee for service reimbursement system. Public and private payers have been piloting alternative payment models (APMs, also called value based purchasing, pay for performance and bundled payment models) that attempt to measure and reward for spending efficiency and value. According to the Health Care Payment Learning and Action Network, in 2018 25.8% of US healthcare payments, representing approximately 226.5 million Americans and 77% of the covered population, flowed through advanced alternative payment models. Questions have been raised about which outcomes are being measured in evaluations of these new payment models and what the definition of value is. Further, risk adjustment used in the models may not accurately reflect the complexity of patients seen by different provider groups. A review of the impact of these programs so far and how the programs defined value and adjusted for risk will help inform the next generation of alternative payment models.

## Scope

Overarching Question: What is the impact of on improving outcomes and lowering costs of alternative payment models?

1. What alternative payment models have been assessed for impact on cost and patient outcomes? What methods have been used for the assessment?
2. What are the characteristics of these models? What are the characteristics of the providers and systems who participated in the models? What characteristics are associated with willingness to take on downside risk?
3. What was the comparator?
4. What are the characteristics of the patient populations? What methods were used for risk adjustment and how were these methods validated?
5. Which outcomes were measured? What unintended consequences emerged?
6. What is the overall impact on improving outcomes and lowering costs of these models? Which design characteristics, clinical areas etc. are associated with the most success? Which characteristics of the providers, patients and models leads to success in models that include downside risk for the providers?

**Table 1.** Questions and PICOTS

<b>Questions</b>	1. Impact of alternative payment models
<b>Population</b>	Providers and health systems who participate in alternative payment models for public and private payers
<b>Interventions</b>	Quality measurement with incentives for meeting benchmarks, bundled payments, quality measurement with penalties for failing to meet benchmarks (downside risk)
<b>Comparators</b>	Standard fee for service, others
<b>Outcomes</b>	Improved clinical outcomes, lower costs/utilization, unintended consequences

## Assessment Methods

See Appendix A.

## Summary of Literature Findings

The literature search found seven systematic reviews, including one Cochrane review, published in the last year on the topic of this nomination. The authors of some of the reviews were not based on the U.S., but the majority of payment models assessed were in the U.S healthcare system. Some of the reviews are comprehensive in scope and others focus on specific clinical conditions (oncology, spine surgery) and settings (hospital, ACO). Taken together, these reviews point to cost savings in some cases, but very limited measurement of clinical outcomes and more research needed for appropriate risk adjustment.

See Appendix B for detailed assessments of all EPC selection criteria.

## Summary of Selection Criteria Assessment

Based on the seven recent systematic reviews, a new review is likely to be duplicative.

Please see Appendix B for detailed assessments of individual EPC Program selection criteria.

## References

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**Conflict of Interest:** None of the investigators have any affiliations or financial involvement that conflicts with the material presented in this report.

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## **Appendix A: Methods**

We assessed nomination for priority for a systematic review or other AHRQ Effective Health Care report with a hierarchical process using established selection criteria. Assessment of each criteria determined the need to evaluate the next one. See Appendix B for detailed description of the criteria.

### **Appropriateness and Importance**

We assessed the nomination for appropriateness and importance.

### **Desirability of New Review/Absence of Duplication**

We searched for high-quality, completed or in-process evidence reviews published in the last year on PubMed using the search terms “value based purchasing OR alternative payment model OR bundled payment OR pay for performance” and the PubMed systematic review filter.

## Appendix B. Selection Criteria Assessment

Selection Criteria	Assessment
1. Appropriateness	
1a. Does the nomination represent a health care drug, intervention, device, technology, or health care system/setting available (or soon to be available) in the U.S.?	Yes
1b. Is the nomination a request for an evidence report?	Yes
1c. Is the focus on effectiveness or comparative effectiveness?	Yes
1d. Is the nomination focus supported by a logic model or biologic plausibility? Is it consistent or coherent with what is known about the topic?	N/A
2. Importance	
2a. Represents a significant disease burden; large proportion of the population	Yes, in 2018 25.8% of US healthcare payments, representing approximately 226.5 million Americans and 77% of the covered population, flowed through advanced alternative payment models (Source Health Care Payment Learning and Action Network).
2b. Is of high public interest; affects health care decision making, outcomes, or costs for a large proportion of the US population or for a vulnerable population	Yes
2c. Incorporates issues around both clinical benefits and potential clinical harms	Yes
2d. Represents high costs due to common use, high unit costs, or high associated costs to consumers, to patients, to health care systems, or to payers	Yes

Selection Criteria	Assessment
3. Desirability of a New Evidence Review/Absence of Duplication	
3. A recent high-quality systematic review or other evidence review is not available on this topic	<p>We found seven systematic reviews published in the last year that cover the scope of the nomination:</p> <p>Agarwal et al. The Impact Of Bundled Payment On Health Care Spending, Utilization, And Quality: A Systematic Review. Health Aff (Millwood). 2020 Jan;39(1):50-57.</p> <p>Aviki et al. Alternative payment and care-delivery models in oncology: A systematic review. Cancer. 2018 Aug;124(16):3293-3306</p> <p>Mathes et al. Pay for performance for hospitals. Cochrane Database Syst Rev. 2019 Jul 5;7</p> <p>Vlaanderen et al. Design and effects of outcome-based payment models in healthcare: a systematic review. Eur J Health Econ. 2019 Mar;20(2):217-232</p> <p>Cattel et al. Value-Based Provider Payment Initiatives Combining Global Payments With Explicit Quality Incentives: A Systematic Review Med Care Res Rev. 2019 Jun 19</p> <p>Kaufman et al. Impact of Accountable Care Organizations on Utilization, Care, and Outcomes: A Systematic Review. Med Care Res Rev. 2019 Jun;76(3):255-290.</p> <p>Dietz et al. Bundled Payment Models in Spine Surgery: Current Challenges and Opportunities, a Systematic Review. World Neurosurg. 2019 Mar;123:177-183</p>

Abbreviations: AHRQ=Agency for Healthcare Research and Quality;