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Evidence Report/Technology Assessment
Number 101

Economic Incentives for Preventive Care

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Preface

The Agency for Healthcare Research and Quality (AHRQ), through its Evidence-Based Practice Centers (EPCs), sponsors the development of evidence reports and technology assessments to assist public- and private-sector organizations in their efforts to improve the quality of health care in the United States. The reports and assessments provide organizations with comprehensive, science-based information on common, costly medical conditions and new health care technologies. The EPCs systematically review the relevant scientific literature on topics assigned to them by AHRQ and conduct additional analyses when appropriate prior to developing their reports and assessments.

To bring the broadest range of experts into the development of evidence reports and health technology assessments, AHRQ encourages the EPCs to form partnerships and enter into collaborations with other medical and research organizations. The EPCs work with these partner organizations to ensure that the evidence reports and technology assessments they produce will become building blocks for health care quality improvement projects throughout the Nation. The reports undergo peer review prior to their release.

AHRQ expects that the EPC evidence reports and technology assessments will inform individual health plans, providers, and purchasers as well as the health care system as a whole by providing important information to help improve health care quality.

We welcome written comments on this evidence report. They may be sent to: Director, Center for Outcomes and Evidence, Agency for Healthcare Research and Quality, 540 Gaither Road, Rockville, MD 20850.

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The authors of this report are responsible for its content. Statements in the report should not be construed as endorsement by the Agency for Healthcare Research and Quality or the U.S. Department of Health and Human Services of a particular drug, device, test, treatment, or other clinical service.

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Structured Abstract

Context. In recent years "pay for prevention" initiatives have been devised to address gaps between the high cost of preventable disease and deaths and the actual prevention practices of health providers and consumers. These initiatives use explicit, or extrinsic, incentives such as bonuses and cash or other in-kind financial incentives for providers and consumers to engage in specific preventive care or health promotion practices. The question is whether such economic incentives are a useful approach. In this report, we evaluate evidence from the literature on the impact of economic incentives targeted at providers and consumers on preventive health behaviors. The review is designed to 1) help develop more effective preventive strategies (evidence-based practice), and 2) help inform key stakeholders about the role of such practices, (evidence-based policymaking).

Objectives. A systematic review of the literature was undertaken to address four questions:

Key Question 1 - How have "preventive care" and "economic incentive" been defined in the literature?
Key Question 2 - Do incentives work?
Key Question 3 - Is there evidence of a dose/response curve?
Key Question 4 - What is the evidence for cost-effectiveness of economic incentive interventions?

Data Sources. We identified MEDLINE®, the Cochrane Library, EconLit, Business Source Premier, and PsychINFO as the literature sources for this review. Reference lists from previous systematic reviews, including the Cochrane Library were also examined as well. We also culled relevant articles from reference lists of identified studies.

Study Selection. Articles for both provider and consumer incentives were subjected to the inclusion and exclusion criteria. Individual articles must be primary studies in which preventive care or health promotion was a primary outcome measure. Preventive care was defined as care prior to illness diagnosis, thus excluding adherence studies. Also excluded were studies which included multiple factors in addition to economic incentives within the intervention arm, as were studies examining payment forms provided by more than one payment system, ie, HMO vs. FFS (as there are too many potential confounding factors). We included only RCTs, time series, and prospective quasi-experimental designs for the structured literature reviews. However, we also provided information from relatively well-designed econometric cross-sectional studies for the provider incentives as another perspective for consideration. Nineteen articles passed the inclusion criteria for provider economic incentives, and 47 articles passed the criteria for the consumer economic incentives.

Data Extraction. The abstraction tool was created with the purpose of facilitating the ability to capture emergent themes from the heterogeneous literature. The form was reviewed and commented on by the TEP members, piloted, and subsequently revised. Abstraction of the articles was performed by two independent reviewers. Disagreements were resolved by consensus of the group.

Data Synthesis. Formal meta-analysis of the incentive literature was not possible because there were not a large number of studies that examined the same incentive type, research outcome measures, and similar populations. General trends were summarized.

Conclusions. Definitions for neither "prevention" nor "economic incentive" are specifically addressed in the literature. Research on the effects of incentive interventions on preventive care and health promotion appears to be driven by policy considerations. Definitions for preventive care and economic incentives are not emphasized in the literature, not only in terms of locating the incentive intervention within larger environmental contexts, but also with regard to the function of the incentive.

There is little evidence available to support the idea that explicit provider financial incentives, particularly of the modest and artificial nature that were evaluated in the studies, are effective. Further, it appears bonuses do not work simply and easily. In the short run, consumer economic incentives are effective for simple preventive care and distinct behavioral goals that are well defined. There isn't sufficient evidence at this time to say that economic incentives are effective for promoting the long-term lifestyle changes required for health promotion.

The reviewed literature cannot answer whether there is a dose response for provider incentives, although one may assume that a sizable enough incentive should produce the desired behavior, if at a high cost. There is a possible dose response for consumer incentives. Even more interesting for consumer incentives is the effectiveness of relatively modest incentives. The threshold dose appears low.

None of the provider studies and few of the consumer studies undertook to make this calculation, thus it is difficult for us to assess the net predicted benefit of a given financial incentive.

Overall, the scientific quality of the current evidence is fair. While many studies were adequately designed to address the specific research question, the question itself was often uninformative.

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***Appendixes and Evidence Tables are provided electronically at**
http://www.ahrq.gov/clinic/tp/ecinctp.htm