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# Reducing Overuse and Misuse

## State Strategies to Improve Quality and Cost of Health Care

Prepared by *Bailit Health Purchasing*—Megan Burns, Mary Beth Dyer, and Michael Bailit

### Introduction

Overuse and misuse of health care services are problems that affect both quality and cost of care. Experts estimate that perhaps one-third of all U.S. health care spending produces no benefit to the patient—and some of it actually results in harm.<sup>1,2</sup> For example, unexplained variation in the use and intensity of end-of-life care, open heart surgery, and angioplasty may cost the health care system approximately \$600 billion per year in avoidable costs.<sup>3</sup> Angioplasty is inappropriate in about one in 10 patients according to experts, and another third of procedures are reported to be of questionable appropriateness.<sup>4</sup> Misuse of drugs and treatments may cost \$52.2 billion and overuse of antibiotics for respiratory infections may cost \$1.1 billion.<sup>5</sup> Duplicative CT scans, a common practice in some hospitals, can unnecessarily expose patients to radiation equal to that of about 350 X-rays.<sup>6</sup> Twenty percent of sicker adults report that their doctor ordered a test that had already been done in the past two years.<sup>7</sup>

These are just a few examples of the problem that plague all purchasers of health care—including state Medicaid agencies and state employee health benefit purchasers. This issue brief focuses specifically on the key purchasing strategies that state Medicaid agencies and state employee health benefit purchasers can implement in order to reduce the overuse and misuse of health care services, and improve the quality and reduce the cost of care. This brief primarily focuses on actions state purchasers can take with contracted plans, providers, and other engaged purchasers to reduce overused and misused services. The research and recommendations in this issue brief were originally provided as technical assistance to a state as part of the Robert Wood Johnson Foundation's State Health and Value Strategies project.

### Background

“Overuse” and “misuse” in the context of health care services were defined by the Institute of Medicine (IOM)'s Committee on Quality of Health Care in America—better known as the committee that created the seminal report *Crossing the Quality Chasm*. The IOM committee defined overuse as the use of health care resources and procedures in the absence of evidence that the service could help the patients subjected to them. Misuse was defined as failure to execute clinical care plans and procedures properly.<sup>8</sup> While these two terms are not interchangeable, the distinctions between overuse and misuse are often lost by those using the terms. This brief is mainly focused on overuse of health care services. However, misuse is a related problem to which state purchasers can also apply the recommendations. This issue brief employs an expanded definition of overuse that refers to services that are not supported by evidence, duplicative of other tests or procedures already received, potentially harmful (or outright harmful), or not truly necessary.<sup>9</sup>

Recent efforts have focused on highlighting services that lack sufficient evidence or have evidence of producing greater harm than benefit in order to reduce the use of these services. For example, research that compares the effectiveness of a medical

### ABOUT BAILIT HEALTH PURCHASING

Bailit Health Purchasing is a health care consulting firm dedicated to ensuring insurer and provider performance accountability on behalf of public agencies and private purchasers.

### ABOUT STATE HEALTH AND VALUE STRATEGIES

State Health and Value Strategies, a program funded by the Robert Wood Johnson Foundation, provides technical assistance to support state efforts to enhance the value of health care by improving population health and reforming the delivery of health care services. The program is directed by Heather Howard at the Woodrow Wilson School of Public and International Affairs at Princeton University.

### ABOUT THE ROBERT WOOD JOHNSON FOUNDATION

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service compared to another in terms of safety, benefits, and harms (comparative effectiveness research, or CER) has gained traction over the last few years. Increasing CER efforts are largely due to \$1 billion in federal funds appropriated to the National Institutes of Health, the Agency for Healthcare Research and Quality, the Department of Veterans Affairs, and the Patient-Centered Outcomes Research Institute.

In addition, public education campaigns like *Choosing Wisely*<sup>®</sup> have sought to engage patients and providers in thinking and talking about medical tests and procedures that may be unnecessary, and in some instances cause harm.

## State Efforts to Reduce Overuse and Misuse

Health care purchasers in several states have ongoing efforts to reduce overuse and misuse through the systematic review of clinical evidence and use of evidence-based guidelines. Three states—New York, Oregon, and Washington—have implemented well-established and successful efforts to reduce overuse and misuse. More information about each state is presented throughout this brief.

States have generally not publicly reported savings specific to efforts related to reducing overuse and misuse of health care services. However, Washington has reported that its efforts resulted in a 94 percent reduction in bariatric surgery spending, a \$10 million reduction in enteral nutrition spending, and a 3-to-1 return on its investment to reduce spending on drugs prescribed for attention deficit disorder by requiring second opinions.<sup>10</sup>

## Strategies to Reduce Overuse and Misuse

To be successful at reducing overuse and misuse of health care services, state Medicaid agencies and state employee health benefit purchasers should address overuse and misuse in a systematic way. Below are six broad strategies that states should implement in combination to reduce overuse and misuse:

- **Develop a communication strategy to ensure the problems of overuse and misuse are being discussed within state government and elsewhere.** A state's ability to advance changes that will reduce overuse and misuse depends on the extent to which key stakeholders understand the issue and believe that it is important enough to deserve their attention. To gain support among providers, patients, consumer advocates, and legislators, senior state officials should actively discuss the perils of overuse and misuse during meetings and forums that address health care policy. The topic should become part of health policy conversations before attempting to implement broad initiatives to reduce overuse and misuse that might otherwise be perceived as improper restrictions to accessing care.
- **Partner with other large health care purchasers to tackle the problems of overuse and misuse.** To gain broad-

based support for reducing overused and misused services, Medicaid agencies and state employee health benefit purchasers can coordinate their efforts. They can also align efforts with other large health care purchasers in their state, (e.g., the state-operated health benefit exchange if applicable, a large employer coalition(s), or the state university system).

- **Identify opportunities to reduce overused and misused services.** Purchasers can engage in an iterative, multistep process supported by external experts in effectiveness research to assist in the identification of overused and misused services generally, and use its own data to conservatively estimate the scope of such services within its population, and the impact on cost and patient safety.
- **Take action to reduce overused and misused services.** Using a collaborative approach, state purchasers can work with their plans, providers, and members to implement changes specific to their own population. State purchasers can also pursue strategies jointly, and measure and hold plans and providers accountable for a reduction of overused and misused services.
- **Explicitly incorporate evidence criteria in policies, regulations, and statutes regarding service coverage decisions.** Some Medicaid agencies, and to a lesser extent some other state purchasers, have no explicit policy, regulatory, or statutory authority to utilize evidence in setting coverage rules. As part of efforts to reduce the provision of overused and misused services, state agencies should introduce evidence-based concepts into their policies, regulations, and, where possible, statutes.
- **State employee health benefit purchasers should introduce value-based insurance designs that encourage members to utilize high-value services.** Non-Medicaid state purchasers can and should implement cost-sharing that encourages the use of evidence-based services and discourages the use of overused or misused services when not clinically indicated. Such an approach can improve patient outcomes and lower costs, both for the member and the state purchaser.

### Develop a Communication Strategy to Ensure the Problems of Overuse and Misuse are Being Discussed Within State Government and Elsewhere

Prior to the ABIM Foundation's *Choosing Wisely* campaign, there had not been any broad-based national efforts to educate physicians and consumers about the prevalence and implications of overuse or misuse. A high level of awareness among consumers, providers, and legislators will create readiness to consider solutions to solve the problems. Absent such awareness, consumers and providers may perceive state action to reduce overuse and misuse in terms of restrictions to needed services.

To help shift a culture that perceives that more is better when it comes to health care, states should develop a communication

strategy to ensure ongoing dialogue regarding the inherent dangers and costs of overuse and misuse. For example, senior state officials should publicly address issues related to the ineffective use and overuse of health care products and services in a variety of forums, including meetings with providers, health plans, and consumers. Partnering with Choosing Wisely groups active in the state and assisting in the distribution of Choosing Wisely materials could be one approach to spark a dialogue among patients, providers, and others. The overall communication strategy should identify meetings and forums where state leaders can purposefully and clearly address problems with overuse and misuse. They should address the topic both generally and by using specific services and patient narratives as examples. Initially, the conversations should focus on potential harm caused by overused services, such as the radiation exposure in an unnecessary CT scan, or the long-term disability that might be caused by an unnecessary back surgery. The state's goal for such a communication strategy should be to generate a higher level of awareness across a variety of stakeholders related to the problems created by the overuse of health care services and to counteract the notion that more is better.

### Partner with Other Large Health Care Purchasers to Tackle Overuse and Misuse

In order to gain broad-based support for reducing overused and misused services, it is important that state purchasers coordinate with other large health care purchasers and other stakeholders (e.g., plans and providers) to assist in developing solutions which may also have potential application in areas outside of one agency. Coordinating purchasing efforts may help state agencies gain added influence in the marketplace, gain credibility and support for change, and obtain information and expertise from other purchasers.<sup>11</sup> The problems of overuse and misuse present a good opportunity for public and private purchasers to work together as the problems affect all purchasers.

For example, Oregon and Washington separately partner with other state purchasers and stakeholders to make recommendations that inform Medicaid and state employee health benefit purchasing decisions. In these cases, the governor's office or legislature established the coordinated efforts. However, in the absence of gubernatorial directive or legislation, state purchasers can take a less formal approach by coordinating with other purchasers to form a multistakeholder work group that:

- sequentially identifies overused and misused services that warrant attention by all purchasers;
- develops and implements coordinated purchasing strategies in order to reduce overuse and misuse; and
- shares information and learnings on approaches to addressing the problem in the context of each purchaser's population.

To organize and support such a group, Medicaid agencies and/or state employee health benefit purchasers could consider

approaching external entities such as locally active quality collaboratives, purchasing groups, and/or interested foundations. The state could engage these types of external entities to help convene and staff such a work group, with in-kind and possibly direct support. While state purchasers can initiate an informal work group and have it grow organically, to be successful over time, the work group will need adequate staff resources to convene and maintain a regular schedule of productive meetings.

A multistakeholder work group could include health plan representatives and provider representatives. It should also include patients, families, and consumer advocacy organizations or unions (as applicable to the purchaser). Including pro-consumer organizations can help encourage dialogue regarding the implications of overuse at the patient level and contributes their voice when designing strategies to reduce overuse and misuse. In order to make this a successful work group, all stakeholders should be involved.

### Oregon

The Oregon Health Evidence Review Commission (HERC) was created by legislation in 2011 and began operations in 2012 to review medical evidence to assist in prioritizing spending in the state Medicaid program and to promote evidence-based medical practice through comparative effectiveness reports, technology assessments, and evidence-based guidelines. HERC does not conduct de novo research, but instead leverages the work of well-established medical evidence review organizations, such as the federal Agency for Healthcare Research and Quality, England's National Institute for Health and Care Excellence, and the Scottish Intercollegiate Guidelines Network. Its staff reviews the guidelines and research from these external organizations and uses that information to make a recommendation on whether the service should be a covered benefit for the Medicaid population. Other state health care purchasers also use HERC recommendations, including the Oregon Public Employees' Benefit Board and the Oregon Educators Benefit Board. Recommendations are subject to public comment and final recommendations are incorporated into coverage guidance.

For more information on Oregon's Health Evidence Review Commission, [www.oregon.gov/oha/herc/Pages/index.aspx](http://www.oregon.gov/oha/herc/Pages/index.aspx).

### Identify Opportunities to Reduce Overused and Misused Services

Whether acting independently, in partnership with other public or private purchasers, or with a multistakeholder work group, it is important for state purchasers to first identify and quantify opportunities to reduce overused and misused services provided to their covered populations. Because there are so many opportunities, states should utilize formal criteria to set priorities. Examples of criteria purchasers should consider for prioritizing among a list of overused and misused services include:

- relative risk to patient-safety;
- frequency and cost of problem;
- data completeness and ability to report the extent of the problem;
- practice variation within the state;
- literature on the extent of overuse; and
- whether there are established, tested, and available evidence-based clinical pathways.

Work group participants should discuss and begin to establish such criteria for prioritization at a first meeting. This process is similar to that taken by New York’s Basic Benefit Design Work Group and described here.

Having established prioritization criteria, it may be helpful for the work group to utilize outside resources to assist in the identification of overused and misused services. Each participating purchaser, to the extent it is able to do so, can then conduct (or have a contractor conduct) an internal analysis on the frequency and estimated cost of the identified problems. Both steps are described in more detail below.

### New York

The Medicaid Redesign Team (MRT) was created by Gov. Andrew Cuomo to develop a multiyear plan to reform Medicaid. As part of the MRT, the Basic Benefit Review Work Group was convened to develop a series of recommendations for modifications to the Medicaid program based on an examination of covered benefits and the latest cost-effectiveness research and value-based benefit design. The Work Group was a multistakeholder group co-chaired by a health plan representative and the commissioner of health and consists of representatives of health plans, providers, provider associations, researchers, and academicians. The final recommendations of the Work Group included principles that should be applied to conducting benefit reviews; a systematic process to review future and ongoing benefit decisions, what evidence should be considered, the clinical and financial aspects of the review; and specific benefit reforms for several programs.

For more information on New York’s Medicaid Redesign Team, [www.health.ny.gov/health\\_care/medicaid/redesign/](http://www.health.ny.gov/health_care/medicaid/redesign/).

### Use Outside Resources to Assist in the Identification of Overused and Misused Services

There are many resources purchasers can use to help them identify overused and misused services and evidence-based criteria or guidelines that, if implemented, could reduce the use of overused and misused services. Appendix A lists a number of free and subscription services that purchasers utilize to obtain evidence for medical coverage decisions. This appendix includes some resources that are used by a variety of public and private plans and purchasers and others that are specific to state Medicaid agencies. In addition, plans and purchasers can consider utilizing

evidence-based practice centers that may be in existence within their state.<sup>12</sup>

### Use Data to Conservatively Estimate the Problem

After identifying areas of focus, each purchaser should conduct an internal analysis of its population’s utilization patterns for each area of focus. Such an analysis can help state purchasers understand the extent and associated cost of overuse and misuse in the identified areas. Even in areas where state purchaser data may be imperfect, purchasers should still conduct this analysis, recognizing that the extent of the overuse or misuse problem may be underestimated due to incomplete data.

Examples of commonly overused services that a state might consider include the following:

- antibiotic treatment in adults with acute bronchitis;
- non-urgent emergency department utilization;
- low-risk cesarean delivery rate; and
- use of imaging studies for routine evaluation of abdominal pain in children.

Data from medical charts are typically the only reliable way to estimate whether the service was appropriately provided. However, an analysis of claims- and/or encounter-based measures relative to a comparator (e.g., benchmark or best practice) can provide state agencies with a good approximation of the problem. This is also a more realistic approach to identifying the problem for most purchasers. Below is a table of suggested comparators for these four commonly overused and misused services. The suggested comparators were derived from a variety of reliable sources based on publicly available data. Other possible sources for comparators of appropriate use include national averages, goals set by other initiatives within the state (e.g., private quality collaborative goals to reduce elective preterm delivery), national goals (e.g., Healthy People 2020), another state’s goals, and best practices or rates derived from evidence-based research. These utilization comparators offer a starting point for purchasers to use when estimating the extent of the problem within their populations. Depending on the specific nature of the overuse or misuse, this approach may also allow purchasers to conduct an analysis without using medical record data.

| Service   | Suggested Comparator |
|---|----------------------|
| Avoidance of antibiotic treatment in adults with acute bronchitis | 34.45% <sup>13</sup> |
| Non-urgent emergency department visits                            | 37.00% <sup>14</sup> |
| Low-risk cesarean delivery rate                                   | 23.90% <sup>15</sup> |
| Use of CT scans for imaging of children with abdominal pain       | 1.00% <sup>16</sup>  |

After comparators are identified, a state purchaser may estimate the cost of the problem by measuring its utilization rates relative to a comparator(s) and calculating the cost of services above the comparator. While this method can provide only an estimate, it

can assist state purchasers to conservatively assess the extent to which these services are overused or misused.

### Take Action to Reduce Overused and Misused Services

With a better understanding of the extent of the problem, each purchaser must commit to taking action to reduce the amount of overused and misused services within its own population. A collaborative approach that involves plans, providers, and beneficiaries is best to implement change. It is also wise to measure and report outcomes, and hold plans and providers accountable for improvement.

#### Washington

In Washington state, legislation has mandated that best available scientific and medical evidence should guide coverage decisions for every agency of state government that purchases health care and that evidence should be derived from systematic research. In 2011, the state expanded its legislative directive to establish a consortium of private and public purchasers, “to provide a mechanism through which public and private health care stakeholders can work together to improve quality, health outcomes, and cost effectiveness of care in Washington state.”

Washington has three primary ways of reducing overuse and misuse. First, it passed a law to define the process for determining payment of medical and dental services within its fee-for-service Medicaid program. Secondly, the State Pharmacy and Therapeutics Committee “evaluate[s] available evidence regarding the relative safety, efficacy, and effectiveness of prescription drugs in a class and to make recommendations to state agencies regarding the development of a preferred drug list.” Lastly, the Health Technology Assessment program assists Medicaid and other state agencies that purchase health care in determining whether certain medical devices, procedures and tests are safe and effective.

For more information on Washington’s Pharmacy and Therapeutics Committee, [www.rx.wa.gov/pt.html](http://www.rx.wa.gov/pt.html) and its Health Technology Assessment program, [www.hta.hca.wa.gov/](http://www.hta.hca.wa.gov/).

### Work with Health Plans, Providers, and Members

After committing to working on the identified areas of focus, it is important for public purchasers to engage plans, providers, and consumers in the process of taking action to reduce overused and misused services at a local level. State purchasers can individually or jointly (with other active parties) convene a work group that consists of contracted managed care plans, representatives from large provider groups or associations, and patients, families, members, unions, and/or consumer advocates. State purchasers can use this group to:

- review the extent of the cost and quality implications the area of focus has on patients and costs;
- review the evidence collected from outside resources; and
- develop recommendations and review potential actions on how to reduce the amount of overused and misused services.

### Pursue Strategies Jointly with a Multistakeholder Work Group

Each state agency should continue to work with the other purchasers in the multistakeholder work group to coordinate action on contract requirements and incentives for health plans and providers to reduce overuse and misuse. Coordination will help send consistent signals to the marketplace about the importance of reducing overuse and misuse and allow providers and plans to focus on common goals. Coordination across purchasers and plans could consist of uniform language in health plan contracts and the use of common metrics and incentives to reward or penalize performance.

### Measure and Report Plan and Provider Performance

Consistent with the adage “you can’t manage what you don’t measure,” state agencies should measure and report plan and provider performance on the focus areas identified by the multistakeholder work group. Unfortunately, very few measures have been developed and recognized by national quality improvement organizations in the areas of overuse and misuse. For example, there are at least 21 National Quality Forum-endorsed measures that address overuse or inappropriate use of medical services; however, the 21 measures fall into only two categories of overuse: inappropriate use of imaging for certain conditions and situations and inappropriate use of antibiotics in certain conditions and situations.

Therefore, state purchasers should work with the others to identify utilization measures for this purpose. States and multistakeholder work groups with which they work, could consider engaging any statewide or locally active quality improvement collaborative to assist in defining appropriate measures of overuse and misuse at the health plan and possibly the provider level.

Reporting of these measures should be done at the plan level and, to the extent possible, at the provider level. Reports should be shared and aggregated with other purchasers’ reports to get a more comprehensive view of the state’s performance.

Outside resources may be able to assist public purchasers in reporting. State quality collaboratives are good resources when developing a process for reporting the extent of overused and misused services at the provider level. So too may be Medicaid External Quality Review Organizations. In other cases, outside resources may publicly report overuse and misuse measures. For example, The Leapfrog Group publicly reports the rates of foreign objects retained after surgery for hospitals—a common misuse measure. In addition, many state Medicaid agencies have their

health plans report common HEDIS measures, including rates of imaging for low back pain and rates of antibiotic use for acute bronchitis.

### Hold Plans and Providers Accountable for Performance

After some experience measuring and reporting plan and provider performance, state purchasers must hold plans and providers accountable for reducing the incidence of overused and misused health care services.

In order to do so, state purchasers should consider the following three steps:

- **Require each managed care plan to stipulate that its subcontracted providers operationalize clinical guidelines adopted by the work group.** A purchaser can modify its health plan contracts to oblige providers to utilize the evidence-based clinical guidelines that have been reviewed and recommended by the multistakeholder work group. Ideally, common contract language would be developed by the multistakeholder work group and integrated into each purchaser's health plan contracts. For a Medicaid program that does not contract with health plans, but rather directly with providers, it is possible to utilize the same approach, but at the provider level with large provider entities (e.g., ACOs, RCOs) or with the largest provider medical groups and systems.
- **Require a reduction in occurrence of overused or misused services or the attainment of a benchmark level of performance.** State purchasers should contractually require health plans (or providers) to reduce the occurrence of overused and misused services or attain a benchmark level of performance. When developing this requirement, state purchasers should keep in mind how overuse and misuse are measured and use benchmarks that are derived from the same type of data (e.g., benchmarks based on overall occurrence (claim or encounter data) versus benchmarks based on appropriate usage (clinical data). If benchmark data are not available, state purchasers should consider holding plans accountable for decreasing the incidence by a percentage or more simply, just a decrease. How state agencies hold plans and providers accountable can be flexible depending on the level of confidence the agency has in its own data and in the benchmark. Like contractual requirements, this too should be coordinated with any other purchasers in the multistakeholder work group.
- **Impose financial consequences for not achieving a reduction in overused or misused services.** In order to hold plans accountable and reward them for performance, state purchasers should use available tools to provide incentives. For example, state employee health benefit purchasers and Medicaid purchasers could consider financial rewards and penalties for plans based on a plan's ability to report on

provider use of evidence-based clinical pathways associated with often-overused and misused services, and a plan's ability to reduce the occurrence of overused and misused services. There are a variety of financial incentives that states could consider, including placing a percentage of the plan's premium at risk tied to the achievement of a reduction in overused and misused services.<sup>17</sup>

### Explicitly Incorporate Evidence Criteria Into Policies, Regulations, and Statutes Regarding Coverage Determinations

Some states lack explicit statutory or regulatory authority to utilize evidence in setting coverage rules. This is particularly the case for many Medicaid agencies. To reduce the provision of overused and misused services, state agencies should both work within existing statutory and regulatory frameworks to apply evidence into medical necessity policies and coverage determinations and work to strengthen relevant statutory and regulatory references to explicitly incorporate evidence criteria.

In order to do so, state purchasers should consider the following two steps:

- **State purchasers should determine what actions they can take to introduce or clarify evidence-based criteria without legislative changes and potentially with limited regulatory changes.** State agencies should consider sub-regulatory changes to coverage policies and health plan contracts as well as adding financial and non-financial incentives that introduce, clarify, or expand the role of using evidence in making coverage determinations. For example, a state agency could start by defining or interpreting existing regulatory or statutory terms related to "medically necessary" as requiring "evidence of effectiveness" and "grounded in evidence-based medicine." This step is particularly important for Medicaid agencies where beneficiary rights to Fair Hearings and established appeal processes may need to be reviewed or amended prior to health plans and the state being able to alter coverage determinations to address overuse and misuse based on evidence. The use of evidence in coverage determinations should be clear to Medicaid agency staff, contracted plans, providers, consumers, and the state's administrative judges who conduct state Fair Hearings. If any of these groups do not understand evidence-based medicine approaches being undertaken to reduce the provision of overused and misused services, they could impede the state's efforts to use evidence-based medicine to improve the quality of care for Medicaid beneficiaries.
- **State purchasers should consider the need and timing for a more deliberative regulatory and legislative agenda and process related to limiting overuse and misuse based on evidence.** State agencies should individually and collectively consider how they might go about affecting regulatory and legislative changes to key sections of coverage and medical necessity language. State Medicaid and employee

benefit agencies could look to affect common regulatory and legislative changes to introduce explicit evidenced-based criteria, similar to what was done in Washington state, in order to change key sections of coverage criteria and medical necessity language.

### **State Employee Health Benefit Purchasers Should Introduce Value-Based Insurance Design that Encourages Members to Utilize High-Value Services**

Value-based insurance design seeks to improve health care quality and decrease costs by using financial incentives to promote evidenced-based, cost-efficient choices in the utilization of health care services. State purchasers can and should consider how to address problems of overuse in their health benefit plan designs. For example, benefit plans may create disincentives, such as high cost-sharing, for health choices that may be unnecessary or repetitive, or when the same outcome can be achieved at a lower cost. State purchasers should design and implement cost-sharing and decision support tools that encourages evidence-based services and discourages overuse or misuse of health care services when not clinically indicated. While this approach is more common in state employee benefit programs, some states, such as Michigan, are introducing these concepts as part of their Medicaid expansion approaches under the Affordable Care Act.<sup>18</sup>

Value-based insurance designs can improve patient outcomes and lower costs, both for the member and the state purchaser. A value-based insurance design typically includes financial incentives and disincentives—both “carrots” and “sticks.” If a patient elects to utilize a more effective or less costly service, under a value-based insurance design, the patient has a lower cost-sharing requirement. Conversely, if a patient obtains medical procedures that science shows to be ineffective or unnecessary, they have to pay for more of the cost under these plans.

Employers initially utilized value-based insurance design most often with pharmacy benefits. For example, several years ago employers as diverse as Marriott, Pitney Bowes, and the City of Springfield, Oregon, all waived prescription drug co-payments for patients with certain chronic illnesses for medications valuable to manage those conditions.<sup>19</sup> More recently, however, some employers have begun to create financial disincentives for the

use of commonly overused services. Two examples explain how benefit designs might be used to discourage overuse. In both instances, the employers are self-insured and thus exert control of their benefit design:

- Oregon’s Public Employees’ Benefit Board in 2010 implemented increased co-payments for back surgery, high-technology imaging, and hip replacement surgery, and reports significant change in patient care-seeking behavior as a result.<sup>20</sup>
- San Luis Valley Regional Medical Center in Colorado identified a group of services that research has shown to be sometimes unnecessary, ineffective, or even harmful. These services include endoscopy for heartburn, surgery for enlarged prostate, and imaging tests for back pain. San Luis Valley covers such services, but requires high co-payments if they are provided.<sup>21</sup>

## **Conclusion**

Even with the attention garnered by the 2001 IOM report, *Crossing the Quality Chasm*, research and experience demonstrates that the problems of overuse and misuse of health care services remain worthy of public and private purchaser attention today. With overuse estimated to affect 30 percent of health care services, there is a great opportunity for purchasers, plans, and providers to reduce the amount of overused and misused services that are being delivered in the U.S. health care system. With the abundance of research on the problem, state purchasers can take an active role in reducing the use of such services their population. Medicaid and state employee health benefit purchasers should focus on improving safety and quality of care by systematically approaching the problem of overuse and misuse and engaging a variety of stakeholders in addressing this problem. Health care purchasers stand to gain improvements in care and cost savings by making a concerted effort, in coordination with other purchasers, to use evidence-based coverage guidelines and hold plans and providers accountable for using evidence-based clinical pathways and adhering to best practices. Patients stand to gain from these efforts through the reduction of harmful services and improving the likelihood that patients obtain and experience the benefits of evidenced-based care.

## Appendix A. Evidence-Based Health Care Organizations

**The Agency for Healthcare Research and Quality’s (AHRQ) Effective Health Care Program** funds researchers to produce effectiveness and comparative effectiveness research free for use by clinicians, consumers, and policy-makers. It produces research reviews, original research reports, and research summaries that outline the benefits and harms of different treatment options. AHRQ’s research has been influential in making policy changes in Washington state for reducing preterm deliveries and low-risk cesarean births in hospitals and in development of patient shared-decision making tools on cesarean delivery, among other areas.<sup>22</sup> What topics AHRQ focuses upon is in part based on input from website users, so while not all of their research focuses on overused and misused services, topics of interest to state purchasers can be suggested by state staff. For more information on AHRQ’s Effective Health Care Program, <http://effectivehealthcare.ahrq.gov/>.

**The Cochrane Collaboration** conducts systematic reviews of all types of health care services, including preventive services, treatment, and rehabilitation services. Like other services, it reviews evidence and makes recommendations on whether services provide benefit to patients. Some of its research is publicly available, but the majority of it is available for a fee. For more information on the Cochrane Collaboration, [www.cochrane.org/](http://www.cochrane.org/).

**The ECRI Institute** is an independent, nonprofit organization that researches the best approaches to improving the safety, quality, and cost-effectiveness of patient care. It includes assessments of technology and other health care services to assess patient safety. It is similar to Hayes, but focused more on health care providers than policy-makers. For more information on the ECRI Institute, [www.ecri.org/](http://www.ecri.org/).

**Medicaid Evidence-based Decisions Project (MED)** is a self-governed collaborative created by the Center for Evidence-based Policy specifically for Medicaid departments. MED’s goal is to provide policy-makers with the tools and resources they need to make evidence-based decisions. It produces objective evaluations of services, shares best practices, and supports states’ efforts at making evidence-based policies.

MED also acts as a self-governing collaboration of subscribed Medicaid agencies that provide input to MED’s research priorities. Currently, 13 states participate in the affinity group including: Alabama, Alaska, Arkansas, Colorado, Minnesota, Missouri, New York, Oklahoma, Oregon, Texas, Tennessee, Washington, and West Virginia. At a similar cost to one full-time employee, Medicaid agencies are able to extend their resources to achieve more significant progress than can be made with a similar investment on internal staff. For more information on MED, [www.ohsu.edu/xd/research/centers-institutes/evidence-based-policy-center/med/index.cfm](http://www.ohsu.edu/xd/research/centers-institutes/evidence-based-policy-center/med/index.cfm).

**Hayes** is an independent research and consulting firm that evaluates medical technology to determine its safety, efficacy, and cost efficiency. Hayes developed a rating system to classify health technology based on the level of evidence supporting it. Such ratings are used by plans and purchasers when making benefit design and coverage decisions. Hayes ratings, evaluations, and reports are available on a subscription basis. For more information on Hayes, [www.hayesinc.com/hayes/](http://www.hayesinc.com/hayes/).

**The Institute for Clinical and Economic Review (ICER)** conducts comparative effectiveness research to determine whether health care services provide both a clinical benefit and economic value. It focuses on providing payers with support for value-based benefit designs, reimbursement strategies, and coverage policies. This organization is one of the impartial research firms used by the Washington Health Technology Assessment program. The reviews it completes are free and publicly available. For more information on ICER, [www.icer-review.org](http://www.icer-review.org).

**The Scottish Intercollegiate Guidelines Network (SIGN)** develops evidence-based practice guidelines for Scotland’s National Health Services. Much of its work is publicly available on the Internet and through mobile applications. SIGN developed clinical guidelines for a variety of services based on a review of evidence. Like Hayes, it also provides an “evidence-grade” for the services. It does not focus solely on overused or misused services, but could be used as a resource to identify whether clinical guidelines have been developed for services identified as overused or misused by state purchasers. For more information on SIGN, [www.sign.ac.uk/index.html](http://www.sign.ac.uk/index.html).

## Endnotes

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