



March 2006

Understanding Key Features of the Drug Effectiveness Review Project (DERP) and Lessons for State Policy Makers

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Medicaid programs spent \$33.7 billion on prescriptions in 2003, or roughly 19% of national prescription drug spending. Sustained high rates of growth in Medicaid prescription drug spending over many years has led states to pursue a variety of approaches to manage the pharmacy benefit appropriately. In recent years, states have increasingly sought to rely on clinical evidence of the comparative effectiveness of prescription drugs as a way to ensure that pharmaceuticals are purchased efficiently and appropriate access is maintained.

The Drug Effectiveness Review Project (DERP) is a collaborative partnership between states and other government and non-profit entities that conducts systematic evidence-based reviews of pharmaceuticals. DERP currently has 16 members, a majority of which are state Medicaid programs. It is the largest effort to apply current best practices and evidence-based analysis to pharmacy management issues.

DERP is based at the Oregon Health & Science University (OHSU) in Portland, Oregon. The DERP model was pioneered by the administration of John Kitzhaber, past Governor of Oregon, in 1999. In 2002, Oregon's neighbors, Washington and Idaho, were the first states to form a collaborative relationship with Oregon, by agreeing to share in the cost of subsequent drug reviews. The project was formally transferred from the state to The Center for Evidence-based Policy (the Center) at OHSU in January 2004. Since its inception, DERP has developed 12 drug class reviews commissioned by Oregon, Washington, and Idaho, as well as 13 drug class reviews commissioned specifically by the larger DERP partnership. Each of these reviews is updated based on new evidence every seven to twenty-four months. Together, these drug classes account for over half of all drug utilization.

Overview of the DERP Model

DERP's overall approach is to develop information on drug effectiveness globally—drawing on financial support and intellectual

input from multiple organizations—while maintaining local control over decisions. Each organization uses the global information (i.e., the drug class review reports prepared by DERP) in its own way to make decisions about such management tools as preferred drug lists.¹

Center for Evidence-based Policy Administers the Collaboration

The Center for Evidence-based Policy supports the DERP collaboration by executing the required agreements and contracts, and staffing the governance process that directs the project. The Center contracts with several evidence-based practice centers to conduct drug class reviews, with coordination and oversight provided by the OHSU Evidence-based Practice Center (EPC). (Although based at the same university, the OHSU EPC is separate from and independent of the Center) In addition, the Center supports communication among states and other participating organizations and provides technical assistance on the understanding and use of systematic reviews, ensures that timelines are met, and manages communication between pharmaceutical companies and the DERP collaboration. The Center does not participate in the evaluation of the evidence. Staff from the EPC also provide technical assistance on how to use and interpret the reviews.

DERP is Self-Governing

DERP operates as a self-governing project, with member organizations setting priorities, determining which drug class reviews will be conducted, and developing key questions and inclusion criteria for each drug class review.

Member organizations operate the collaboration through twice yearly face-to-face meetings, and a series of monthly teleconferences. The collaboration has developed policies and procedures that guide their decision-making process. Each member organization is permitted one vote, and may only cast that vote when they are represented at the meeting in which the vote is taken. Organizations that are in contract negotiations to participate in DERP are permitted to participate fully in meetings and engage in discussion of issues, but can't vote until their participation agreement is signed.

Given the nature of the collaboration, addressing conflicts of interest is critical to the trust needed for organizations to work together. The collaboration strives to ensure that research evidence and the process for gathering it are both free of conflicts. Representatives involved in governing are asked to disclose potential conflicts. In addition, staff at both the Center and the EPC are subject to conflict of interest policies.

Table 1: DERP participating organizations

Alaska	Oregon
Arkansas	Washington
California	Wisconsin
Idaho	Wyoming
Kansas	California HealthCare
Michigan	Foundation/CalPERS
Minnesota	Canadian Coordinating
Missouri	Office for Health
Montana	Technology Assessment
North Carolina	

Conducting the Reviews

Drug class reviews conducted for DERP draw on a tradition of evidence-based research promoted by the Agency for Healthcare Research and Quality (AHRQ) in establishing EPCs.² The reviews involve a comprehensive literature search, including citations received as a result of soliciting input from pharmaceutical companies. All articles are selected according to previously specified inclusion criteria (based on such things as the patient populations, treatments, and outcomes studied). Articles are then reviewed and rated for their methodological quality by at least two independent reviewers. The data from the included studies are also abstracted by two reviewers, allowing the research team to synthesize the results in different ways. The final reviews include substantial detail about the studies and the results.

In developing the approach to drug class reviews, the research team points to the importance of establishing what is considered good evidence. Thus, for example, they focus on the outcomes of using particular drugs, rather than the underlying biological or chemical theories of what should happen to patients who take these drugs. Another key consideration is how to handle inadequate evidence, which may restrict the ability to draw clear conclusions about the relative advantages of different products in a drug class.

Setting Parameters for Drug Class Reviews

Participating organizations vote to determine which classes of drugs will be reviewed. They consider the following when selecting drug classes for review:

- Drug classes that account for a significant amount of the pharmaceutical budget;
- Drug classes with multiple drugs;
- Drugs that are being used for off-label purposes;
- Drug classes with recent additions of similar drugs (including extended release formulations);
- Addition of a significantly expensive drug to a class; and
- Consideration only of drugs approved for use in the jurisdictions of participating organizations.

DERP Seeks to Ensure Consistent and Transparent Interactions with Pharmaceutical Manufacturers

A critical issue for the DERP collaboration is how the project interacts with pharmaceutical manufacturers. The collaboration has agreed that the Center will be the point of contact with pharmaceutical companies, but participating organizations respond directly to pharmaceutical companies on issues related to local decisions or processes. Moreover, the DERP collaboration has developed special procedures for collaborating and sharing information with pharmaceutical manufacturers. This includes a formal dossier submission process in which manufacturers can submit studies and other research for DERP review. As part of this process, DERP does not consider cost or pricing information and discourages pharmaceutical manufacturers from submitting it. Because the publicly released reviews include detailed information about all included studies, DERP reviews do not consider any confidential reports that might be submitted by manufacturers.

The Role of States in the DERP Collaborative

States and other partner organizations share the costs of the DERP collaboration. As a result, the number of drug class reviews is limited by budget considerations and agreements among partners on the level of assessments they will pay for the collaboration.

In addition to the financial partnership, states and other partners are actively engaged in the evidence review process. Participating organizations establish priorities for the collaboration through the selection of drug classes for review and by developing key questions and parameters for the review. Staff members at both the Center and the OHSU EPC emphasize the importance of organizations participating actively in developing key questions. The success of the process depends on using the collaborative process to develop key questions and identify critical outcomes. Some states have held public meetings to assist with developing key questions, and the Center posts them on its website before conducting drug class reviews. Staff emphasized that there are many questions that could be asked and many that are not answerable. Therefore, an important part of process is setting parameters for what the evidence-based review will seek to evaluate. Thus, for example, the review of statins used in treating high cholesterol addressed questions about reductions in cardiovascular events as well as whether the drugs reduced cholesterol levels.

The Impact of DERP on Medicaid Decision-Making

The DERP drug class reviews provide a tangible product that states use to inform their Medicaid pharmacy policy decisions. At a minimum, DERP products can provide a research underpinning to many of the issues under consideration at the state level around preferred drug lists and other approaches to managing drug utilization.³ Among our site visit states, some made DERP their sole source of evidence to support decisions, while others had at least one alternate source. By contrast, two of our site visit states are not participants in DERP.

Table 2: Participation of site visit states in DERP

	Uses DERP as sole source	Uses DERP and other sources	Non-participant in DERP
California*			X
Florida			X
Kansas	X		
Michigan		X	
Missouri		X	
Washington	X		

* California was not a member of DERP at the time of our site visit. The state became a member in May 2005.

The involvement of state pharmacy staff with the DERP collaboration, however, also provides other benefits to states. We heard from state participants in DERP and staff at the Center that the regular meetings and calls provide a valuable opportunity to discuss issues with their peers from other states. These might include process issues, such as how they organize their P&T committees, or substantive issues, such as what decisions they made about particular drug classes. Or staff might address political issues such as how they are handling input from pharmaceutical manufacturers or beneficiary advocates.

State participants also receive information about the reviews beyond what is available to the public, and have access to the reviewers at the EPCs to help them understand better the technical details of the reviews. This puts the participants in a stronger position to guide their state colleagues as they use the reviews to make policy around preferred drug lists or other cost management and quality assurance tools.

POLICY QUESTIONS

Preferred drug lists and prior authorization are two of the tools available to states to manage the Medicaid pharmacy benefit. As states increase their reliance on these tools, a consensus appears to have developed among the states over the central role of evidence in making state decisions. DERP is an innovative approach to evidence-based reviews of prescription drugs that produces results that are useful to Medicaid policy makers and others. As evidence-based practices with respect to prescription drugs continue to evolve, and as the DERP model continues to change in response to the needs of their participating organizations, several issues are relevant to policy makers:

1. What value does the DERP collaboration offer to participating states?

Based on conversations with Medicaid officials in a small number of states, we have heard that at least a core of DERP participants believe that it is indispensable to their efforts to use clinical evidence in managing the Medicaid pharmacy benefit. The needs and resources available to states, however, vary dramatically. This clearly has a significant impact on perceptions of the need for or value of DERP. In some states, DERP is just one of many sources of information and its reviews are used to validate their own evidence-based reviews (or those developed for them by contractors). In other states, DERP is the only or primary source of information for evaluating the evidence base for specific drug classes.

Nevertheless, stakeholders consistently reported that DERP is valued for the quality and thoroughness of its evidence-based drug class reviews. Although some states receive evidence-based reviews from other sources, DERP's products are widely seen as the "gold standard."

2. Is DERP's collaborative model valuable? Is it worth the financial investment?

DERP's evidence-based reviews are made available to the public through posting of their reports on their web site (<http://www.ohsu.edu/drugeffectiveness/reports/index.htm>). This has caused some to question whether the value gained from participating in the DERP collaboration is worth the expense. While we did not evaluate this question formally, at least some participating organizations have responded emphatically that participating in the collaboration is cost-effective and a smart public investment for their state.

States reported several major benefits to participating organizations that are not available to those just using public information. Most important, participating organizations have the ability to participate in the decision-making process. For some states, the ability to determine which drug class reviews are conducted and to shape the questions—potentially to ensure that a drug class of interest to a given state is prioritized—is particularly important.

Participation in DERP also gives states access to staff at both the Center and the EPC that would otherwise not be available to them. Staff at both centers attempt to make themselves available to participating organizations as consultants and provide back-up support, as necessary. Informally, the Center attempts to make some staff available to travel to each participating state at least once each year to provide expert testimony or other technical assistance. DERP members also have access to supplemental materials not available on the web site. These include PowerPoint presentations that participating organizations can use, executive summaries of full reports that are useful for state executives, and, in the update process, versions of reports that highlight changes from previous versions.

3. Does evidence-based analysis extend greater credibility and acceptability to preferred drug lists? If so, are DERP reviews considered more credible than others?

The politics of pharmacy management at the state level vary dramatically. In some states, pharmaceutical manufacturers have been able to prevent states from implementing PDLs and other pharmacy management policies. In other states, associations representing physicians or pharmacists have prevented them from enacting PDLs or using prior authorization extensively.

Many stakeholders indicated that efforts to use clinical evidence to manage the pharmacy benefit are popular, but such efforts have been met with skepticism from other stakeholders, including some physicians and pharmacists. These stakeholders fear that preferred drug lists (PDLs) and prior authorization policies may not really be evidence-driven. For these skeptics, participation in DERP has given states some level of credibility that pharmacy management decisions are based on clinical evidence.

Others characterized the benefit of participating in DERP differently. They asserted that the PDL or prior authorization policy must pass a test of face validity. Physicians and other groups have been supportive of PDLs and other policies when they have not caused wholesale interruptions in their prescribing habits. If most prescribing decisions are upheld and policy changes or new prior authorization requirements are accompanied by a clear and reasonable justification, then physicians and pharmacists have either been supportive, or have limited their opposition. Some states also found that some stakeholders were initially concerned about their state's participation in DERP because they believed that an out-of-state group might drive the state's policy setting process. In these cases, states have learned to emphasize how DERP reports and other products inform a state's decision-making process without taking decision-making out of the hands of state officials.

Finally, DERP officials and some state respondents reported that the response of pharmaceutical companies has shifted over time.⁴ Although companies may continue to oppose any use of PDLs, they have shown increasing willingness to accept the legitimacy of the DERP process. Companies have the opportunity to submit literature for consideration, and tend to debate state decisions more on the scientific merits than on pure politics.

4. Should DERP adopt a broader concept of evidence in its reviews?

One of the critiques of the DERP model, especially from manufacturers, is that it focuses on comparative evidence only from randomized controlled trials (RCTs) at the exclusion of other information, such as observational studies. Most would agree that RCTs are the gold standard for evidence, but some argue that observational studies can add insights where RCTs have not been, or cannot easily be, conducted. Staff at both the Center and the EPC respond by asserting that the DERP collaboration is intended to develop an evidence-based review using the best available evidence. However, DERP reviews are also beginning to incorporate other types of evidence as the nature of the questions has evolved.

Where trials do not cover what is needed to answer certain questions, such as the impact of drugs on patients typically excluded from clinical trials, or the longer-term outcomes of drug use, then observational studies are important. Still, DERP researchers suggest that methodological criteria should be established for observational studies to ensure that they provide reliable answers to important policy questions and credibility as a decision-making tool.

5. How should policymakers respond if DERP reviews find inadequate evidence around certain key questions?

Some criticize the DERP model by saying that the lack of evidence does not mean that there is no difference between drugs within a particular class. In particular, advocates in the mental health community have raised concerns that some reviews appear to find no differences among drugs in a class (such as second generation antidepressants), when few studies have assessed variations in individual responses to these medications. Their concern is that state policymakers may use the reviews to inappropriately restrict the use of these drugs.

Center staff and others have argued that this is a form of obfuscation—unanswerable questions can always be devised. But, even in the absence of a process for conducting systematic evidence-based reviews, state policymakers are being forced to manage the pharmacy benefit. They assert that the more relevant question is whether states' use of DERP's products and reports, and the educational benefits that come with participating in the collaboration, lead to better state decision making. The final product is only as good as the key questions and can only answer questions for which evidence exists. Based on discussions with state officials, we learned that states rely on DERP reports as a primary tool when making decisions, but they also rely on a variety of other sources. Many states report that they consider results from observational studies, public comments, and other data. All of the stakeholders participating in the DERP collaboration with whom we spoke believe that participation in the DERP collaboration improved their decision making.⁵ Further, they make the point that prescription drugs are also over-prescribed. In the absence of evidence for a particular problem or patient population, physicians prescribe drugs until there is evidence they don't work or are unsafe.

6. Should DERP take on broader issues (e.g., dosing variations or drugs that are used for different treatment approaches)?

The challenge for states is to continue improving their management of drug utilization. The easiest questions have been whether there are differences among competing products when they are relatively similar. The absence of significant differences allows states to negotiate with manufacturers, while evidence that one or more drugs have better outcomes helps ensure that those products will be available to beneficiaries. This approach is important for groups of drugs, such as statins for managing cholesterol, PPIs for gastrointestinal disorders, or ACE inhibitors for lowering blood pressure.

Yet in some drug classes, the array of competing products is more complicated. Drugs used in the treatment of diabetes include some newer products that are used differently. Some believe that one class of diabetes drugs (glitazones or TZDs) may be helpful in treating pre-diabetes. DERP members are interested in evaluating this question as well as comparing these drugs and other classes that treat diabetes. Because fewer clinical trials have addressed these questions, it creates challenges for the researchers.

Another area of future interest is whether combination drugs (such as the new drug that combines a cholesterol medication with a treatment for hypertension) are effective or whether drugs with different dosages are superior. These questions tend to turn on compliance issues, such as whether patients are less likely to skip a drug if it is taken less frequently or, in the case of two combined chemicals, in one combined pill. Often, randomized controlled trials have not addressed these types of issues, so DERP faces a challenge in determining how best to assess the evidence to answer these questions.

7. What kind of a model does DERP offer for Medicare Part D?

In establishing the Medicare Part D outpatient prescription drug coverage program, Congress established a system whereby private plans will compete to deliver a prescription drug benefit. The Congress also endorsed the principle that formularies should be evidence-based.

DERP works on the principle that evidence-based reviews can be developed globally as a collective good, while policy decisions can be made locally by each state or other organization. Similarly, the DERP model could fit well with the Medicare Part D program, where individual Part D plans could make independent decisions based on collectively developed evidence-based reviews. One possibility is that Congress could establish a clearinghouse, built on the DERP model, which could be funded either by the federal government or by a coalition of health plans. If federal funding were used, it would provide an endorsement for the idea of a collective good developed by the government, while each plan would remain free to make separate formulary decisions. The alternative would be no common database of evidence-based reviews. One could imagine several entities along the lines of DERP. As with the states today, some choose to participate in DERP; others may use DERP information without contributing to its development; and still others contract independently with commercial vendors or local universities to develop the same information.

Medicare could also build evidence-based reviews into its process for measuring the performance of organizations offering the Part D benefit. CMS could use the DERP reviews to build standards for assessing good clinical management. Thus, where the reviews find that certain products are superior to others or are important for sub-populations, CMS could use this information in reviewing the performance of plans. Such reviews also could be incorporated into information that is made available to the public, so that beneficiaries can use it to pick high-quality plans.

CONCLUSION

DERP is a novel collaboration between certain states and other participating organizations to support systematic reviews of the comparative effectiveness of prescription drugs. Part of the value for states is that the collaboration can be whatever states collectively decide to prioritize and support. While just a few years old, participating organizations clearly seem to value the collaboration for its support of state efforts to manage the Medicaid pharmacy benefit. While this project did not formally evaluate the collaboration or exhaustively examine critiques leveled at DERP's evidence-based reviews, it lends support to the DERP model as a way to incorporate clinical evidence when setting Medicaid pharmacy policies.

Notes

¹ See DERP's website for more information: <http://www.ohsu.edu/drugeffectiveness/index.htm>.

² For further discussion of evidence-based research, see Earl P. Steinberg and Bryan R. Luce, "Evidence Based? Caveat Emptor," *Health Affairs* 24(1): 80-92, January/February 2005; Daniel M. Fox, "Evidence of Evidence-Based Health Policy: The Politics of Systematic Reviews in Coverage Decisions," *Health Affairs* 24(1): 114-122, January/February 2005; and Mark Helfand, "Using Evidence Reports: Progress and Challenges in Evidence-Based Decision Making," *Health Affairs* 24(1): 123-127.

³ See our issue brief on pharmacy and therapeutics committees for more discussion of how states use this information.

⁴ A similar point was made in the Fox article, cited above.

⁵ See our issue brief on managing the behavioral health pharmaceutical benefit for further discussion of how states are using scientific evidence to manage antidepressants and other behavioral health drugs.

ABOUT THE SERIES

Medicaid agencies report that pharmacy costs are a major driver of overall spending growth in Medicaid programs.¹ Many states believe tools such as preferred drug lists and prior authorization can help curtail pharmacy costs (while ensuring beneficiaries have access to needed prescription drugs) and that using clinical evidence for these tools can make them more credible. These states recognize that prescription drugs—even expensive ones—can be cost effective and improve quality of life.

In 2004, the Commonwealth Fund funded the National Academy for State Health Policy and Georgetown University to conduct a series of site visits to examine state efforts to manage the pharmacy benefit in Medicaid programs. With input from a broad-based advisory group of state officials and other experts, researchers selected six states (California, Florida, Kansas, Michigan, Missouri, and Washington) where they met with multiple groups of stakeholders, including agency staff, pharmacy vendors, pharmacists, physicians, drug utilization review (DUR) and pharmacy and therapeutic (P&T) committee members, and advocates for consumers.

This brief, the third of four, describes the organization and functions of the Drug Effectiveness Review Project (DERP), a project that reviews the comparative effectiveness of drugs within the same class. The other briefs in this series examine state efforts concerning P & T committees, prior approval processes, and behavioral health pharmaceuticals. Our observations indicate that states face critical issues in designing and implementing these efforts.

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