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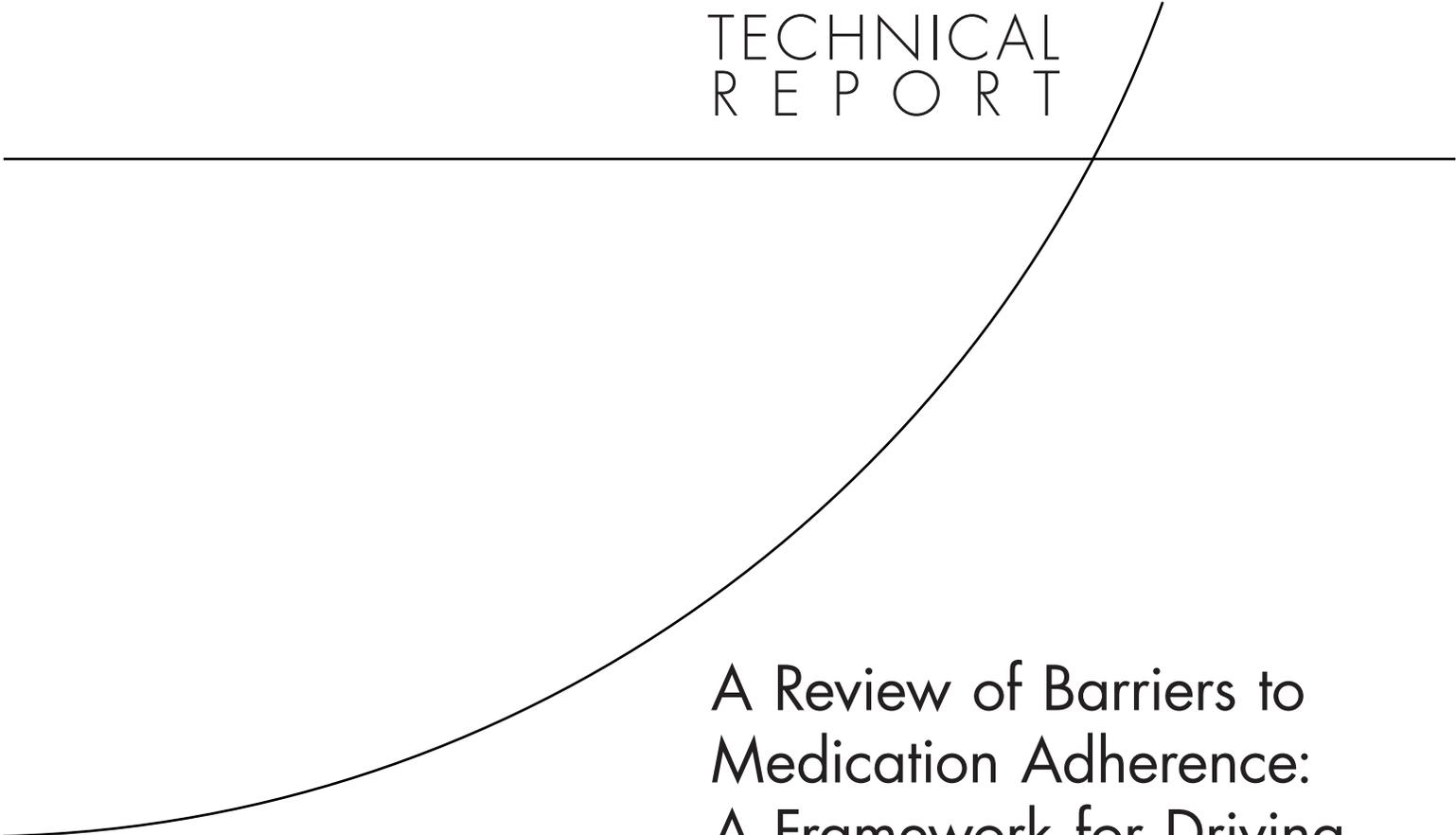
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TECHNICAL
R E P O R T



A Review of Barriers to Medication Adherence: A Framework for Driving Policy Options

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Executive Summary

What can be done about a problem that has been studied in thousands of articles and yet barely improved in decades? Failure to adhere to recommended medication regimens is a real problem that has negative consequences for patients, providers, health plans, employers, industry, and society. The national dialogue on health reform that is currently under way includes a discussion of ways to improve care for persons with chronic disease and to improve the value and efficiency of health care. Strategies to improve adherence to medication therapy fall squarely in these discussions, since nonadherence affects the ability to effectively manage and control chronic diseases and contributes to the costs society incurs.

To provide an evidence base and framework for the development of policy options to improve adherence, we review here the literature on barriers to medication adherence. We conducted a systematic literature review of the nonfinancial barriers to medication adherence, and, to complement this systematic review, we summarized prior reviews on adherence, including those dealing with financial barriers. The literature on barriers to medication adherence is heterogeneous and of variable quality, which detracts from our ability to form policy recommendations rooted in the literature. The literature we reviewed uses different measures of adherence, some of which are validated and some that are not, and measures adherence with different instruments and over different periods of time for different diseases with small samples.

Despite these limitations, we identified, through our systematic review and prior reviews, four key potentially modifiable barriers that are conceptually sound and evidence-based:

- cost-sharing
- regimen complexity
- medication beliefs
- depression (in patients with diabetes).

Evidence is clear that higher copayments contribute to lower adherence to medication. Cost-sharing could thus be reduced as a barrier when the appropriate use of a particular medication has health or financial benefits, such as avoiding future complications, functional decline, or more-expensive future treatments. Regimen complexity is another barrier to medication adherence that has clear evidence in the literature, and prior systematic reviews of interventions to improve adherence have identified decreasing regimen complexity as a successful intervention. A variety of other nonfinancial factors are likely to affect adherence, and the literature we reviewed points to beliefs about medications generally and depression (most consistently in patients with diabetes) as important barriers. For these barriers, policy options will have to

be flexible, rather than global, since one-size-fits-all programs are unlikely to work. Additional prevalent barriers included lack of knowledge about illness and treatment, side effects, and provider factors, including patient-provider trust and patient satisfaction.

We additionally identified several key points gleaned while performing this literature review that are relevant to the discussion on policy solutions:

- A research agenda that addresses the shortcomings in the current literature would be helpful to guide the policy agenda.
- Potential policy solutions that address one barrier must not worsen another—for example, programs that lessen regimen complexity should not also increase cost-sharing.
- Researchers and policymakers must be clear about the type of adherence they are addressing, since adherence is a multistep process, from being prescribed the correct medication, to filling the prescription, to continuing to take the medication, to taking the medication as directed.
- Programs for improving adherence must find a balance between “customized” interventions to address individual barriers and effective programs that work for large groups or classes of patients.

The literature does not identify how barriers interact and cannot identify any one individual patient’s barriers; thus, programs or screening tools that can identify nonadherent individuals and successfully address their individual barriers should be supported. Health information technology and comparative-effectiveness research, two major components of health reform, have the potential to play important roles in promoting adherence to medications and better research on adherence interventions.