New medical technologies—pharmaceuticals, medical devices, and procedures—often allow great improvements in the outcomes of medical care, but they are also widely believed to be a major cause of increasing costs. Selective adoption of new technologies, the taking on of only those technologies for which the medical benefits exceed the costs to society of developing and using them, is a crucial element in the quest to control health care costs while preserving or enhancing the quality of care.

This report focuses on adoption of innovative medical technologies by managed care organizations (MCOs). The project had two primary objectives: (1) to understand current processes MCOs use for making coverage, medical-necessity, and payment decisions involving emerging medical technologies, and how device developers and manufacturers prepare for and participate in these processes; and (2) to identify ways that private, voluntary action by the managed-care and medical-device industries individually or jointly might improve—for the benefit of society—the processes by which new medical technologies are developed, evaluated, and adopted or rejected for coverage.

We gathered empirical information from in-depth, semi-structured interviews with eight manufacturers of innovative devices and nine managed care organizations. We also collected information from representatives of manufacturers, MCOs, and the sponsors of this study—the California Goldstrike Partnership, the Economic Development Administration of the U.S. Department of Commerce, and the Health Industry Manufacturers Association (HIMA)—at a
half-day, invitation-only meeting held at RAND headquarters on October 7, 1999.

The most novel aspect of the study is collection of extensive information from manufacturers and juxtaposition of their reported experiences and perspectives with those of MCOs. We had four primary audiences in mind when conducting this research and reporting our findings: medical-device developers and manufacturers, managed care organizations, public-policy makers, and researchers and analysts. Members of all four audiences will find something of interest here. Experienced device manufacturers—i.e., companies that have already marketed devices in the United States—may, for example, be spurred to think about marketing to MCOs in new ways. Aspiring device manufacturers—i.e., organizations that are attempting to develop innovative devices but that have no experience in marketing such products—and their investors may learn the most. In particular, many observers believe that such organizations often fail to look past Food and Drug Administration approval of their products to the challenges they will face in the marketplace, and find themselves inadequately prepared for the commercialization effort. Likewise, as MCOs attempt to make numerous difficult decisions regarding emerging technologies, they are likely to benefit from considering the perspectives of manufacturers and the processes and perspectives of other MCOs. Public policies can influence MCO technology-adoption decisions for privately insured consumers. It would be beneficial, then, for policymakers to consider how their decisions may affect medical innovation indirectly through the effects of those decisions on private technology adoption, along with the more obvious direct effects of their decisions about coverage and payment under public health insurance programs. In addition, government agencies concerned with job creation and economic development should be interested in our findings concerning determinants of commercial success for medical-technology developers and manufacturers. Finally, researchers and analysts may be interested in various issues discussed here, such as decisionmaking by MCOs, device manufacturers’ commercialization strategies and tactics, how the interaction of the two determines demand for emerging medical technologies, and the nature of incentives for medical innovation.

This report is based on research conducted under the auspices of RAND Health. RAND Health furthers RAND’s mission of helping
improve policy and decisionmaking through research and analysis, by working to improve health care systems and advance understanding of how the organization and financing of care affect costs, quality, and access.