Chapter Three

HOW DEVICE MANUFACTURERS SEE THE SYSTEM

In this chapter, we describe and interpret what we were told in interviews with representatives of eight companies that manufacture and market innovative medical devices. We begin by providing background on how companies were selected and recruited to participate, the issues addressed in the interviews, and the companies and devices on which the interviews focused. We then report and interpret what we were told about the recent experiences of the companies in marketing their devices to managed care organizations. In accordance with our pledge of confidentiality to interview respondents, the discussion is somewhat general in order to avoid inadvertently revealing the identity of any participating manufacturer. Nevertheless, we believe we convey an informative depiction of many aspects of the market environment as perceived by the interview respondents.

BACKGROUND ON MANUFACTURER INTERVIEWS

Recruitment of Interview Respondents

A critical issue confronting health care delivery in the United States is the tension between controlling cost and promoting quality of care. To enable us to learn about how this tension may play out in the context of emerging medical technologies, we sought to interview companies actively marketing medical devices.
Managed Care and Emerging Medical Technologies

• whose commercial fate could depend on decisions of MCOs\textsuperscript{1}
• that differ from predecessor devices in ways that might offer significant medical advantages
• whose use might involve higher MCO costs than those of alternative approaches to the same therapeutic or diagnostic goal.

Given the interests of the sponsoring California Goldstrike Partnership, we also made a special effort to include companies based in, or with substantial operations in, California. Candidate devices and the companies were identified in various ways, including review of FDA lists of recently approved devices, review of trade press, and discussions with staff of HIMA.

Once companies of interest were identified, HIMA staff made initial contact with those companies that are HIMA members. If these contacts elicited sufficient interest, a RAND investigator followed up to explain the project and request an interview. Five interviews were arranged through this route. For those non–HIMA-member companies identified as appropriate to the project goals, recruitment was handled entirely by RAND project staff. This approach added two interviews. Finally, three companies contacted HIMA upon hearing about the study, to volunteer for interviews. One of them met our criteria and was included in the sample. In all cases, when RAND contacted a company to request an interview, we faxed a description of the project and its goals (Appendix A) and a description of the interview, including a list of interview questions (Appendix B). When requesting an interview, we suggested a particular device for discussion—specifically, the device that led us to request an interview—and invited companies to suggest a second.

Content of Interviews

As detailed in Appendix B, the interviews with manufacturers addressed four sets of issues:

\textsuperscript{1}Which excludes, for example, various types of equipment that are marketed directly to and purchased by hospitals.
How Device Manufacturers See the System

- Background on the company and the one or two devices on which the interview focused
- The experience of the company in marketing the device or devices to MCOs
- Factors other than MCO behavior affecting adoption of the technology
- Lessons learned and advice for largely inexperienced device developers and manufacturers.

All of the companies that agreed to interviews also agreed to discuss the device that led us to approach them. In two cases, a second device that was suggested by the interview respondent was discussed as well. The number of interview respondents per company varied from one (in four cases) to three. In two cases, the only, or lead, respondent was a corporate vice president. Otherwise, he or she was a director or manager of reimbursement or product manager for the device on which the interview focused. Two of the interviews were conducted in person; six were conducted by telephone.

The planned duration of the interviews was 60 to 90 minutes, but almost all of them lasted 90 minutes or more. Interview respondents were promised confidentiality, were told they were free to tell us that a subject was too sensitive to be discussed, and were encouraged to point out information that was particularly sensitive. While respondents often provided information that was proprietary and, on occasion, identified information as especially sensitive, they seemed to be very candid and forthcoming. Questions were rarely deflected because they were too sensitive to discuss.

**Descriptions of Companies Interviewed and Devices Discussed**

Most of the companies are publicly held. They range in size from very small to large (e.g., a few dozen to several thousand employees). Almost all of them focus on developing, manufacturing, and marketing medical devices. The proportion of the companies’ R&D and manufacturing activity located in California runs the gamut from none to virtually all. Three of the companies are based in California.
For half of the companies, a device on which the interview focused was the company’s only or key commercial product. All but one of the devices discussed is for therapeutic use. The indications for use varied widely, including life-threatening acute or chronic conditions, traumatic injury, or physical disability. Three of the devices are permanently implanted, two are used for drug delivery, and two promote healing of wounds. The populations of potential users in the United States annually ranged from roughly ten thousand to several million. The devices were approved for use by the U.S. Food and Drug Administration as early as the 1980s and as recently as 1997. One device discussed at length, in parallel with another product of the same company, had not yet been approved by the FDA.

All of the devices discussed met our criterion of involving significant potential costs per patient. In some cases, the price of the device represents a majority of the cost of using the technology; in others, the cost of the associated procedure accounts for a majority of the costs. The prices of the devices ranged from a few thousand to many thousands of dollars per patient. The per-patient costs of related professional services, such as surgery, hospitalization, and post-
operative care for implants, ranged up to tens of thousands of dollars.

The novelty of the emerging technologies relative to alternative therapies also ranged widely. For example, one of the devices was the second to market of two similar devices, and another involves a novel mode of action to compete with devices that are otherwise similar. Another device competes head on with a more complex and more costly device that entered the market earlier. A fourth device enables treatment of a life-threatening condition with less-invasive surgery than the standard alternative. The final technology employs a very innovative, but quite costly, approach to treating a condition for which alternative therapies are very inexpensive but often largely ineffective.

The nature and extent of available clinical evidence related to the devices also varied greatly. Most have peer-reviewed, published evidence on safety and efficacy. A few of the devices have been studied in double-blind, randomized clinical trials. However, there is no randomized evidence about some of the technologies. To support claims of safety or effectiveness, some of the devices effectively piggyback on previous studies of similar devices or of a related clinical approach that has been shown to be safe or effective.

In addition to clinical evidence, in today's health care environment, many purchasers, insurers, providers, and consumers want to con-

5Often, the gold standard for clinical trials—randomized, double-blind, placebo-controlled studies as generally used for pharmaceuticals—cannot be met for studying devices. Reasons include ethical concerns (which may prevent randomization); blinding of clinicians may be infeasible (e.g., one has to see the device to use it); and use of a placebo may be infeasible (e.g., for implantable devices, this would involve a sham operation). For discussions of the difficulty or impossibility of many device trials’ meeting the gold standard and some implications, see Chang and Luft (1991, pp. 99-101), Rettig (1997, p. 51), and Ramsey et al. (1998). Ramsey et al. (1998, pp. SP190-SP191) also point to difficulties in recruiting patients to participate in clinical trials, the importance of long-term performance such as durability of implanted devices over several years, and the importance of operator skill in performing procedures (e.g., implant surgeries).

6Most of these studies were conducted before FDA approval. We also asked companies about studies conducted after market introduction. We were told that, typically, such studies aimed at enabling use of the device for additional indications, evaluated performance of modified designs, or focused on long-term effects or effects on populations of special concern (e.g., the elderly, patients with specific co-morbidities).
Managed Care and Emerging Medical Technologies

sider nonclinical issues such as costs and other economic factors in making utilization decisions.\(^7\) A market demand for economic information is reflected in efforts by many of the companies interviewed to develop such information. The degree to which companies have invested in cost-effectiveness and economic studies—and the degree to which they have developed useful information—varied greatly over the devices discussed in the interviews. For some of the devices, there is substantial information on the overall costs of treatment or on the costs of failures to treat a condition successfully.

Who would be responsible? Some of these costs—if incurred—would be borne by MCOs or (depending on risk-sharing arrangements) providers using the technology. Other costs would be borne by patients, other insurers in the future, or society at large through taxes. Some of the costs considered by the studies are incurred within days or months of treatment; in other cases, costs that would not be incurred for several years are considered. The evidence is quite straightforward and easy to understand for some technologies; for others, the evidence is developed using complex analytic models. According to the descriptions provided by companies, adoption of some of the devices would increase costs of MCOs and would lower MCO costs for others.

**RECENT EXPERIENCE IN COMMERCIALIZING DEVICES**

The degree of success that the sample companies have achieved in marketing their devices to MCOs has varied widely, both across MCOs for a particular device and across devices. Some have been very successful commercially. For example, some have generally obtained positive coverage decisions when MCOs have made formal decisions, and procedures using their devices have generally been authorized whether or not there has been a formal coverage decision. For those whose success has been limited, the reasons have differed. For example, many large MCOs have approved some de-

---

\(^7\)Sources (of varying detail and technical content) on issues and methods of economic evaluation of medical technologies are Task Force on Principles for Economic Analysis of Health Care Technology (1995), Medical Alley (1995), Gold et al. (1996), Sloan (1996), Ramsey et al. (1998), and Luce and Elixhauser (1999). The art and science of economic evaluation of medical technologies is young and is advancing rapidly.
vices for coverage, but their use has often been judged not medically necessary in individual cases. For another device, coverage has been denied or contractually excluded by many plans, but the device has been judged medically necessary in many cases by other plans. What kinds of decisions and activities by MCOs and manufacturers determine such outcomes?

**Manufacturer Views on MCO Processes and Decisions**

Most of the interview respondents reported that willingness of MCOs to pay for their products and associated professional services is critical to the commercial success of the devices being discussed.\(^8\) Several respondents related that indemnity insurers were typically more willing to cover their devices and the associated professional services, and in many cases reimburse more generously. One respondent emphasized that the importance of MCOs differs substantially across the country according to the extent of market penetration by MCOs and differing degrees to which financial risk for use of the company’s technology was borne by provider groups rather than by health plans. Respondents with several years of experience commercializing devices indicated that the importance of MCOs has grown enormously over the past decade or so.\(^9\) Respondents also indicated that the importance of MCOs is growing because of the ongoing growth of managed care generally and ongoing efforts to enroll Medicare patients in managed care through the Medicare+Choice program. The latter development, of course, means that MCOs may become very important, even for devices that would be used almost exclusively by Medicare enrollees.

Manufacturers report that in their experience formal coverage reviews are infrequent.\(^10\) Several manufacturers told us that, in their

---

\(^8\)Recall that, for interviews, we attempted to choose companies for which this would be true.

\(^9\)The only respondent who reported that MCO decisions were not critical to commercial success was one whose product would be used almost exclusively by Medicare-eligible patients, in which case coverage and reimbursement policies of the Medicare program were the paramount factors.

\(^10\)For information concerning the frequency of formal coverage decisions by MCOs, see below where we report on our interviews with MCOs. Ramsey et al. (1998,
experience, various large payers undertake some formal coverage decision processes, including formal technology assessments (TAs).\textsuperscript{11,12} In many cases, these large payers are national organizations with several affiliated health plans operating in a variety of geographic locations; however, manufacturers reported that a positive coverage decision by a national MCO does not guarantee coverage by its affiliated plans.\textsuperscript{13} Some manufacturers indicated that, in their experience, smaller payers rarely conduct formal coverage reviews or TAs, and many seem to follow the lead of large payers in determining their coverage policies.

Formal coverage decisions may or may not be crucial to how extensively an emerging technology is used. The manufacturers we interviewed had very different experiences in this regard. According to the manufacturers, new technologies are often reimbursed without MCO personnel even being aware of that fact. Often this situation occurs because a new technology is used by a plan’s providers and billed to the plan under a pre-existing Current Procedural Terminology (CPT) code,\textsuperscript{14} so that the bill is paid without anyone within the MCO being aware that a new technology is involved.

Delays in decisions can be costly to manufacturers and to patients. On the one hand, manufacturers whose devices were aimed at life-threatening conditions reported that, when necessary, decisions

\textsuperscript{11}Rettig (1997) provides a detailed description of how—and by whom—medical technology assessments are performed in the United States.

\textsuperscript{12}Chang and Luft (1991, p. 106) report that technology assessments conducted by private insurers are often less formal and are implemented more quickly than assessments performed by government agencies (e.g., in the course of reviewing a technology for Medicare coverage) but are not necessarily less rigorous.

\textsuperscript{13}Participants at the October 7 meeting pointed out that coverage may vary geographically among affiliated plans for several reasons, including differing state regulations or mandates, local standards of care, or litigation risks.

\textsuperscript{14}There need not be anything deceptive about billing a new procedure under a CPT code that existed before the procedure was developed, because the description associated with the code may accurately describe the new procedure despite its being novel in some medically important way. For discussions of the use of old billing codes for new procedures and the implications of doing so, see Chang and Luft (1991, pp. 102, 104, 107), Kahn (1991, pp. 94–95), and Powe, et al. (1996). Chang and Luft (1991, p. 104) report that, if a standard code is not used, “[t]his generally requires a third-party payer to make an explicit coverage decision.”
were made very expeditiously; we heard no suggestions that decision delays posed threats to life. On the other hand, some manufacturers of devices for which delays pose less danger to patients reported experiencing many instances of extensive delays—especially in formal coverage decisions. In this context, some interview respondents volunteered that MCOs had to set priorities, and that there could be very legitimate reasons for decisions about their devices to be assigned relatively low priorities.

The fact that many devices are adopted or rejected without explicit decisions by MCOs raises the question of what factors tend to attract attention by MCOs. When asked about this, manufacturers emphasized impacts of their own efforts to market their technologies to MCO medical directors—whom manufacturers uniformly described as the key decisionmakers within MCOs—and MCO case managers, as well as impacts of pre-authorization requests from physicians. As we would expect, manufacturers tend to call attention to their products when they believe it is in their interest to do so—for example, when they believe that they can make a convincing case to medical directors or case managers, or because they have not been (or believe they cannot be) successful in achieving adoption without explicit decisions to cover their technologies.

We also asked manufacturers what roles they play in MCO decision processes. All stated that they provide clinical (and, sometimes, economic) information to medical directors and other MCO personnel, and to committees to be used in formal coverage reviews or case-by-case determinations of medical necessity. They also reported promoting their products and associated procedures directly to individual physicians, physician opinion leaders, medical-specialty societies, and, sometimes, directly to patients. Finally, several manufacturers reported that they help physicians and patients to document pre-authorization requests or to appeal denials.

15To contribute to both clinical and financial goals, case managers monitor and coordinate care for selected patients during illness or injury episodes. Case managers were mentioned by several of our interview respondents. Their importance was sometimes described in negative terms (i.e., they can resist pre-authorization requests and impede access to medical directors); however, because of the nature of their technologies, some manufacturers viewed case managers as natural allies, once they got their message across.
We also inquired about how MCOs use information provided to them by manufacturers. Interview respondents typically replied either that the information they provide is carefully considered or that they do not know how it is used. Manufacturers also reported that MCOs often request additional information from them, such as data about clinical effectiveness or cost-effectiveness for specific groups of patients (e.g., elderly patients, patients with specific co-morbidities, smokers). Several manufacturers also emphasized that there is enormous variation across MCOs in the information they request from manufacturers.

Of course, MCOs do not rely exclusively on information provided by manufacturers. When asked about other information used by MCOs, manufacturers typically mentioned published literature, especially if it is peer-reviewed. In addition, manufacturers reported that MCOs often obtain technology assessments from public and private organizations, consider whether and under what conditions the device and associated procedures are covered by Medicare, and consult with local academics or physician leaders.

16 Federal agencies that conduct and publicly disseminate medical technology assessments include HCFA, AHRQ, and the National Institutes of Health (NIH). (Rettig, 1997; Ramsey et al., 1998.) Technology assessments by private organizations are generally proprietary and are made available to MCOs (and others, including hospitals, government agencies) under various financial arrangements. Rettig (1997) provides an unusually informative description of many private organizations that conduct technology assessments, including their histories, their staffing, the kinds of information they use to conduct their assessments, and services offered and their pricing. The private technology assessment organizations that were mentioned most frequently by manufacturers were ECRI, Hayes, Inc., and the Blue Cross, Blue Shield Technology Evaluation Center (BCBSA TEC), which are profiled by Rettig (1997). The National Institute for Health Care Management Research and Educational Foundation (NIHCM Foundation) (1999, pp. 17–18) also describes the procedures of the BCBSA TEC. Mendelson et al. (1995) discuss technology assessment activities of state governments.

17 Either under national coverage policies determined by HCFA or, much more often, local coverage policies determined under quite general guidelines by the contractors that HCFA hires to process Medicare claims. “Historically, HCFA has [excluded] from Medicare coverage medical services that have not been demonstrated to be safe and effective by acceptable clinical evidence or that have not been generally accepted in the medical community as safe and effective” (General Accounting Office [GAO], 1994, Chapter 1). The National Health Policy Forum (1998, FAQs, p. 2) reports that “only about 10 to 20 treatments or technologies per year are considered by HCFA for national coverage determinations.” The HCFA Coverage Issues Manual section on Durable Medical Equipment lists 17 types of durable medical equipment and 16 types of prosthetic devices (available at www.hcfa.gov/pubforms/06_cim/c160.htm). Contractors, which include Peer Review Organizations, HMOs, commercial insurers,
Manufacturers also indicated that many MCOs are influenced by the coverage policies of other organizations. Large and small MCOs often ask manufacturers about Medicare policy regarding their technology. Manufacturers report that Medicare coverage can help them greatly in the private market and that lack of Medicare coverage can be very costly to them. Manufacturers also reported that positive coverage decisions by other private payers can help them obtain positive decisions by MCOs; indeed, manufacturers use coverage by other MCOs (that may be competitors) as a selling point. When asked for examples of private payers that appear to influence decisions of MCOs, manufacturers generally named two or three of the eight or so largest private payers in the country.

Finally, we asked manufacturers whether and how MCOs communicate their decisions to manufacturers. Most manufacturers replied that such communication is rare, and that it generally occurs only if the manufacturer expends substantial effort. For example, some manufacturers told us that they often (sometimes routinely) demand explanations for coverage denials, and that the explanations they receive tend to be brief and very carefully worded. Some manufacturers added that even when positive coverage decisions were made, medical-necessity or patient-selection criteria were often not explained to them. The most common source of manufacturer information about MCO decisions may be individual physicians who inform them of medical-necessity decisions in individual cases.

Marketing Strategies and Tactics

Commercializing new medical devices leads manufacturers to undertake a variety of tasks. Our discussions with manufacturers suggest that companies employ one of two basic strategies. The first strategy involves seeking formal coverage approvals from prominent
MCOs and other insurers and using these approvals to influence other (e.g., small) insurers. The second strategy involves attempting to build use of the technology without explicit coverage decisions and seeking formal coverage approvals only after widespread use has been achieved—if ever.¹⁸

Whichever strategy is pursued, manufacturers’ marketing efforts are often elaborate. The manufacturers we interviewed generally employed several of the following tactics:

- Meeting with payers and medical directors well before product launch to build awareness of the product and to solicit suggestions on how to make their informational materials more useful to decisionmakers
- Meeting with MCO medical directors after product launch to present cases for coverage and payment
- Recruiting physician champions to help gain access to medical directors and to influence specialty societies and individual physicians
- Providing professional education—for example, by disseminating information in various ways and, in some cases, by providing hands-on training in performing innovative procedures
- Attending meetings, conferences, or conventions of specialty societies, case managers, or patient groups to make their case in various ways
- Visiting individual physicians’ offices to make their case
- Developing in-house staff to help physicians and patients with requests for pre-authorization and reimbursement, and appeals of coverage denials.

¹⁸Widespread use can help a manufacturer make a case for coverage, because, for example, the technology can then be claimed to have become the standard of care or because widespread physician acceptance of a technology can be viewed as evidence of safety and effectiveness.
How Device Manufacturers See the System

Potential Hurdles to Device Adoption by MCOs

We usually did not ask manufacturers directly about potential impediments to MCO adoption of emerging technologies. However, we gleaned considerable information of this sort from what they told us. Potential adoption hurdles should be of substantial interest to aspiring medical innovators and less-experienced device manufacturers who could benefit from a better understanding of the market environment for products they may seek to commercialize in the future. The issue should also be of substantial interest to policymakers and policy analysts who wish to consider how well these hurdles may serve the social objective of facilitating adoption of emerging technologies that deliver sufficient social value relative to costs and impeding adoption of those that do not.

Several of the manufacturers believe that they had developed convincing evidence that the emerging technologies they were marketing offered significant clinical advantages over alternative therapies. When those technologies were aimed at life-threatening conditions or serious diseases, the manufacturers generally reported being quite successful in their commercialization efforts. In contrast, if technologies were not aimed at life-threatening conditions or serious diseases, commercialization was more difficult, especially if adoption of the technology appeared to increase MCO costs in the near term, if the technology was not covered by Medicare, or both.

Some of the manufacturers told us that the advantages of their technologies over alternative therapeutic approaches included important improvements in quality of life for patients. Among these manufacturers, there appears to be general agreement that such benefits to patients are not given much weight in adoption decisions by MCOs. For example, some MCOs tended to characterize particular improvements in quality of life as improved “convenience” for patients, concluding on that basis that technologies that offered only such benefits are not medically necessary and therefore are not covered. In addition, two of the interview respondents whose devices might be characterized as contributing primarily to quality of life reported

19This issue is not directly raised in the interview protocol (Appendix B).
that their technologies were specifically excluded contractually by many MCOs or that this possibility was a serious concern to them.

Several manufacturers also averred that their commercialization efforts were inappropriately hampered by the nonpublic nature of the technology assessment, coverage decisionmaking, and medical-necessity-determination processes at most MCOs. Several of the interview respondents were concerned about the resulting restrictions on their ability to make their cases directly to committees (i.e., their written materials had to speak for themselves). Some manufacturers raised a specific concern that negative decisions may have been based on inaccurate or outdated information contained in technology assessments obtained from outside organizations to which manufacturers had no access and to which they could not offer rebuttal directly.

A hurdle faced by all manufacturers is the sheer magnitude and complexity of the tasks involved in seeking and gaining widespread market acceptance of emerging technologies:

- There are hundreds of managed care organizations in the United States, and each makes more or less independent decisions.
- MCOs have different structures and procedures for making coverage decisions.
- MCO medical directors were generally described as reasonable and dedicated to making good medical decisions; however, they are extremely busy people, and much effort is often required to gain access to them.
- Often manufacturers face the task of making large numbers of physicians aware of emerging technologies and, in some cases, training them to perform the associated procedures.  

\[22\] Sometimes, the relevant group is primary care physicians (PCPs). In some instances, PCPs are a key target of information-dissemination efforts, because they might use the technology themselves. In other cases, PCPs are targeted because, even though specialists would use the technology, patient referrals from PCPs often would be required.
Finally, manufacturers face the tasks of developing clinical and economic evidence and communicating the evidence to decisionmakers.\textsuperscript{21}

**Special Hurdles for Very Innovative Technologies**

Moreover, especially innovative therapies can face particularly high hurdles to adoption for any of several reasons:

- If a procedure involving a new device is quite unlike previous procedures, it may be inappropriate to use an existing CPT code, and pre-authorization or reimbursement requests are less likely to be approved without attracting attention.\textsuperscript{22}
- When existing codes are not appropriate, the manufacturer faces the costly and time-consuming task of obtaining new codes.\textsuperscript{23} This task generally requires showing that physicians are using the new procedure, which, in turn, requires diffusion of the technology despite the lack of appropriate CPT codes and, often, support from medical-specialty societies.\textsuperscript{24}
- Very innovative procedures can attract mass-media attention, leading numerous patients to request or demand the new treat-

\textsuperscript{21}Communicating economic evidence can be especially difficult, because medical directors, for example, are not generally well versed in economic principles or methods of cost-effectiveness analysis; in some instances, the methods and models used are necessarily complex.

\textsuperscript{22}Use of new procedures is often recognized because of the use of unrecognized codes, absence of codes, excess charges attached to existing codes, or billing as an “unlisted procedure” with additional explanation (Chang and Luft, 1991, pp. 105–107).

\textsuperscript{23}CPT codes are determined by American Medical Association (AMA) panels, usually based on proposals made by medical-specialty societies. During the late 1980s, there were about 7000 CPT codes; there were 500 changes in 1988 alone (Chang and Luft, 1991, p. 108).

\textsuperscript{24}Kahn (1991, pp. 94–95) emphasizes disadvantages for a company if its technology does not fit into the existing coding system: “An innovation novel enough to be difficult to fit within the existing codes has an especially difficult acceptance by the health care system.” Chang and Luft (191, p. 107) point to a potential advantage: “a new code allows for the possibility of a more generous payment.” Most of our interview respondents thought it was advisable to work within the existing coding framework if possible, emphasizing that obtaining a new code is costly, a legitimate medical reason must exist, and, in any case, it is difficult to obtain premium reimbursement levels.
ment, thereby raising concerns about rapid diffusion of the technology and rapid cost growth. Rapid diffusion driven by consumer demands can lead to inappropriate use. Rapid expansion of costs can be especially problematic for MCOs, because unanticipated costs are incurred before premiums can be renegotiated with payers.

- When a technology is especially innovative, the task of informing physicians can be especially daunting. In some cases, a very innovative therapy can provide the first truly effective treatment for a condition, and companies face the task of informing primary care physicians (PCPs) so that they will be more likely to refer patients to appropriate specialists. In other cases, the procedure itself may be very innovative, presenting the manufacturer with the task of providing training for physicians.

- Very innovative emerging technologies may threaten the incomes of some groups of physicians, because specialists different from those who have routinely treated the condition in the past might perform a new procedure. In such instances, the physicians who are threatened may be especially skeptical of the value of the new procedure and communicate this skepticism to MCO decisionmakers.

25Participants at the October 7 meeting added that use of the Internet can have a similar effect, which they expect will grow markedly in the years to come.