

**Reprint** # 39-01

## Physician Adoption and Use of Technology at the Point of Care

By **John Mack** and **Caren Spinner**

Point-of-Care technologies, including Electronic Medical Records (EMR), Personal Digital Assistants (PDAs), and electronic prescribing, promise to play an increasingly key role in the delivery of health care in the US. The federal government—the largest healthcare payer in the country—is encouraging and even mandating the adoption of these technologies by the year 2014. The Medicare Modernization Act of 2003 (MMA) is a major factor behind these efforts. It provides that e-prescribing based on national standards be mandatory for drug plans participating in the new Medicare Part D prescription drug benefit by 2009, although the Centers for Medicare & Medicaid Services (CMS) expects to require an initial set of well-established standards by January 2006 when the Medicare benefit begins.

“We are moving aggressively to bring our health care system into the modern world of information technology,” said Mark B. McClellan, M.D., Ph.D., CMS administrator. “We are committed to using health information technology to improve health and health care not only for Medicare’s 41 million beneficiaries, but for all Americans.”

However, a new study from Manhattan Research, LLC, a healthcare marketing information and services firm, finds that adoption of these technologies is in danger of stalling unless current barriers are addressed and new drivers identified. For example, Only 140,000 U.S. practicing physicians are using EMR to document clinical data today.

### Setting the Stage for Pharma

Mark Bard, President of Manhattan Research, speaking at the Technology Supported Physician Detailing conference organized by the Center for Business Intelligence and held recently in Philadelphia, told the audience that physicians now use the internet as a primary channel for obtaining information, putting it on par with other channels such as conferences, journals, reps and colleagues, with an ever-increasing number of physicians relying more on the internet than the pharmaceutical rep for information.

At the same time physicians are relying on the Internet, sales forces have grown. This growth gives rise to one of the more significant issues facing pharmaceutical companies today—that of “rep redundancy”. That growth raises three significant issues that must also be addressed. The first of these will be to define what the role of the rep will ultimately become? The second issue is where and how e-detailing will fit into the general promotional mix—as a complement to the sales force or as a replacement for the rep? The third issue is what new hardware will be available and how will it best and most effectively be utilized?

### e-Detailing

This becomes even more significant since according to Mr. Bard, physicians are demanding and utilizing e-detailing, which is reflected by the fact that in 2004, almost 215,000 physicians participated in e-details, compared with only 40,000 in 2001. However, insuring physician participation may be influenced by how best to motivate physicians to participate in e-detailing utilizing “reward systems” that are non-cash based.

Bard also pointed out that high-speed access, it now a market reality as three quarters of all physicians now has that type of Internet access. This high-speed accessibility means that both the pharmaceutical and technology sectors will be able to “push the bandwidth” for e-learning, e-detailing and interactivity. Coincident with the increase in physician access to high-speed Internet services; there is also the evolution of functional hardware. According to Mr. Bard, because the hardware evolution is relevant to both the physician and the sales rep, it raises questions such as how can all of this hardware be used for data capture?

From the physician perspective, more physicians are using hybrid devices such as “smart phones” or “side kicks” and other scheduling programs that provide some of the functionality of devices like the blackberry but at a lesser price. But it is important to note that this “evolving hardware scenario” is played out against a background where PDA growth has stalled.

### The Physician Perspective

David Kibbe, M.D., Director, Center for Health Information Technology, American Academy of Family Physicians (AAFP), in his keynote address to conference attendees, provided an overview of the emerging market for Health Information Technology (HIT) in small and medium size medical practices and spoke of the challenges to adoption as well. He also looked to the future of pharma/physician collaboration and a vision of the Intelligent Medical Practice<sup>sm</sup>.

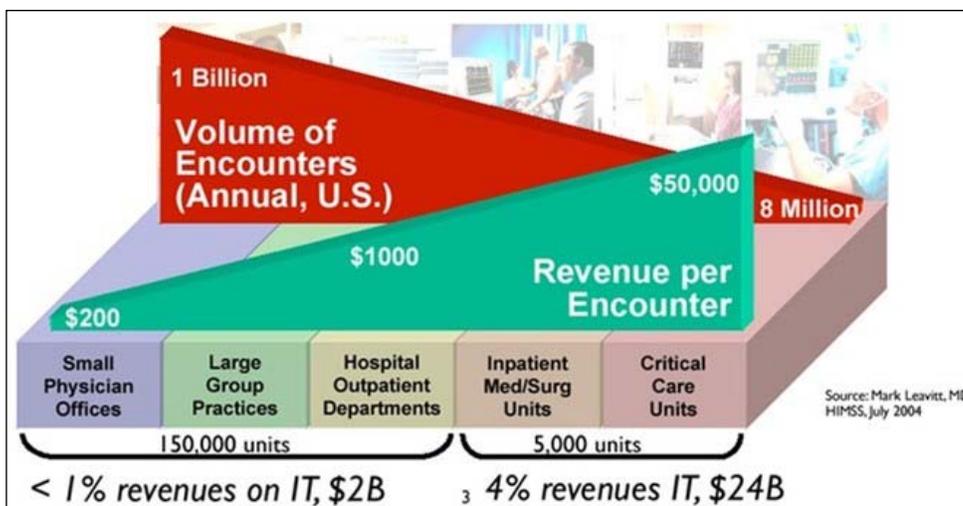
Kibbe focused primarily on family practice physicians. He believes that the 90,000 AAFP members, 60,000 of whom are in active practice, are virtually reinventing ambulatory care. According to Kibbe, 250 million visits a year are made to family practice physicians who comprise only 8% of the physician workforce, but handle 24% of all outpatient visits. Also significant is that 25% of these physicians are in solo practice and the average group practice is between 2-5 physicians. Family practitioners also generally own their own practices.

is a challenge faced by many high-end technology vendors, purchasers in ambulatory care facilities and physician purchasers.

Currently, according to Kibbe, 90% of office-based practices are connected to the Internet. In addition, 85% of practices are using computerized billing and electronic data exchange. As proof of "technology adoption", Dr. Kibbe reported that 75% of FPs use handhelds.

According to Kibbe, when it comes to technology adoption among physicians, one of the lessons that must be learned is to know the "micro-segment" of the physician market you are addressing. He believes it is critical to know where these physicians are in relation to the physician paradigm for high-end technology adoption. It is also necessary to know the market being addressed and he cautioned that the AAFP is looking to see how physicians are and will be recruited in order to make sure they are involved in a successful project.

Kibbe discussed a paradigm of adoption of technology by physicians that consisted of several stages: early adopters, the risk-averse, and late adopters. He stated that early adopters of technology are "technology-specific" and realize the importance of the technology, while at the same time, desiring solutions that are specific to their needs and purposes. He emphasized that these characteristics are not necessarily "gender-specific" citing that almost half of these adopters are women.



### Spending on Healthcare Technology

With regard to health care spending, Kibbe said that, "Ambulatory care is where the action is and where it will continue to be." He presented data from 2003 that showed that outpatient expenditures of healthcare dollars were over the 1 billion-dollar mark for 2003.

Despite the billion dollar revenues in the ambulatory setting, less than 1% of this is spent on high-end technology. Kibbe believes that significant growth can and will occur in this arena.

### Adoption of Technology by Physicians

Although major changes are occurring in the healthcare technology market, growth of adoption

Kibbe described the "risk-averse" category as those who prefer to sit on the sidelines for 2 to 3 years or until such time as they can be convinced of a viable business case or return on investment. However, he went on to explain that ultimately, this type of individual could be the best spokesperson.

Late adopters are those that are most resistant, either to the technology or to change in the status quo.

### The Electronic Medical Record

Kibbe urged the pharma industry to pay attention to the group of early adopters and stressed that it is critical for Pharma to understand its role in collaborating with ambulatory care physicians as

they move to adoption of technology at the point of care. This is especially true with regard to the adoption of electronic medical records (EMR) within small and medium practices.

Kibbe reported that of the 65,000 physicians currently using EMR systems, 15% could be described as "innovators," 25% are "early adopters," and 30% are "late adopters."

The early adopters are ready to get rid of paper entirely, but still some are waiting. These early adopters are ready to buy the necessary technology, but for many the hesitancy is due to financial considerations. Often these physicians don't do many in-office procedures. As a result, they may not be making a lot of money, but at the same time they are seeing their costs going up, their malpractice premiums going up and their reimbursement going down. Their frustration is compounded because they are strapped for cash, they are working harder, and handling more visits a day.

### The Intelligent Medical Practice<sup>SM</sup>

AAFP's Center for Health Information Technology is dedicated to increasing the availability and use of low-cost, standards-based information technology among family physicians, nationally and internationally, through consultative, educational and outreach activities.

As an example, Kibbe cited "The Intelligent Medical Practice<sup>SM</sup>," an AAFP exhibit at its 2004 Scientific Assembly in Orlando, Florida that highlighted 20 physician-membership organizations, representing over 50,000 physicians including organizations like AAFP, AMA, ACP, AAAP, ACOG, etc. Their mission to help ambulatory care physicians acquire and use electronic medical records and high end technology for quality improvement, safety, enhancement and other information that would benefit their practices and their patients.

Citing reasons for the desire to adopt EMR, Kibbe said that the primary motivation is "practice-centric," looking at gains in efficiency as a major issue for making the business rationale or proving the value proposition. Another reason physicians are receptive to this is because they are looking to information technology to help mitigate risk.

A further example of this can be seen in the "Partners for Patients" program which is an AAFP/IT Industry collaborative initiative based on the guiding principles that high-end technology must be based on affordability, compatibility and interoperability. Its purpose is to address a variety of issues such as data transfer from one physician

to another so that it is standardized into a "continuity of care record." Another issue is data stewardship to address following data, how is it controlled, and who may access it. Over 65 IT companies support this initiative and are some of the cutting-edge companies in both IT and medical information.

### Why Pharma Should be Involved

Looking toward the future, Kibbe believes that electronic health care records will eventually encompass things like connectivity, lab reports, and e-detailing. He believes that the closer Pharma is connected to this entire endeavor, the better off Pharma will be. In Kibbe's opinion, currently Pharma is not involved and said, "Pharma companies haven't either figured it out or are unaware of how to approach physicians regarding technology." He encouraged Pharma to collaborate with IT companies that understand the technology needs of physicians.

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