Chapter VII

Information Technology in Primary Care Practice in the United States

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Abstract

The objective of this study was to assess the current level of information technology used by primary care physicians in the U.S. Primary care physicians listed by the American Medical Association were contacted by e-mail and asked to complete a Web-based questionnaire. A total of 2,145 physicians responded. Overall between 20% and 25% of primary care physicians reported using electronic medical records, e-prescribing, point-of-care decision support tools and electronic communication with patients. This indicates a slow rate of adoption since 2000-2001. Differences in adoption rates suggest that future surveys need to differentiate primary care and office-based physicians by specialty. An important finding is that one-third of the physicians surveyed expressed no interest in the four IT applications. Overcoming this barrier may require efforts by medical specialty societies to educate their members as to the benefits of IT in practice. The majority of physicians perceived benefits of IT, but they cited costs, vendor inability to deliver acceptable products

and concerns about privacy and confidentiality as major barriers to implementation of IT applications. Overcoming the cost barrier may require that payers and the federal government share the costs of implementing these IT applications.

Introduction

The adoption of information technology (IT) to support the delivery of healthcare is increasingly recognized in many countries as an essential tool in improving patient care (Leaning, 1993; Dick & Steen, 1997; President's Information Technology Advisory Committee, 2004). One study of ten countries that belong to the Organization for Economic Cooperation and Development (OECD) found that over 90% of the general practitioners had computers in their offices and, in almost all cases, used them in practice (Protti, 2007). Until recently, IT products available for healthcare providers were mostly designed for large organizations, were business- oriented, complex to implement, and costly. Recent advances in technology have made IT applications more available to primary care physicians in smaller practices. Products are available that are modular; able to be integrated with different systems, and are designed to fit the physicians practice pattern without substantial investments in hardware software and maintenance (McDonald & Metzger, 2002).

As a result, the introduction of computers and IT applications into primary care in countries with favorable government policies and financial incentives has been rapid (Thakurdas, Coster, Guirr & Arroll, 1996; Purves, Sugden, Booth & Sowerby, 1999; Kidd, 2000; Mount, Kelman, Smith & Douglas, 2000). A number of English-speaking countries have experienced widespread implementation of information technology. The Harvard School of Public Health and the Commonwealth Fund's International Symposium survey of primary care physicians found that the proportions of primary care physicians in the following countries who were using electronic medical records were: U.S. (17%), Canada (14%), Australia (25%), New Zealand (52%), and the UK (59%). The survey also found that use of electronic prescribing by primary care physicians was: U.S. (9%), Canada (8%), Australia (44%), New Zealand (52%), and the UK (87%) (Harris Interactive, 2001a).

The U.S. trails European countries in the use of information technology in patient care. A recent study of primary care physicians in seven countries (Australia, Canada, Germany, New Zealand, the Netherlands and the UK) revealed striking differences in the implementation of clinical information systems. U.S. physicians were the least likely to have clinical information systems in their offices (Schoen, Osborn, Huynh, Doty, Peugh & Zapert, 2006). Overall, 29% of general practitioners in the Eurropean Union use electronic medical records compared to only 11% in the U.S. Only