In the Literature

HEALTH CARE SPENDING AND USE OF INFORMATION TECHNOLOGY IN OECD COUNTRIES

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U.S. health spending per capita significantly and consistently outpaces that of other industrialized nations. One proposal for lowering health spending and improving quality is the adoption of health information technology (HIT). Yet the United States lags behind other countries by as much as a dozen years in its efforts to implement HIT.

Heeding lessons from other countries' experiences with HIT development could facilitate U.S. implementation, finds a new analysis supported by The Commonwealth Fund. In "Health Care Spending and Use of Information Technology in OECD Countries," (*Health Affairs*, May/June 2006) the authors present U.S. spending and HIT initiatives within an international context. They also discuss the key issues surrounding HIT implementation: creating incentives, ensuring interoperability, and easing the public's privacy concerns.

U.S. Health Spending Highest

The U.S. continues to have the highest per capita health care spending among industrialized countries, according to the most recent data from the Organization for Economic Cooperation and Development (OECD). In 2003, U.S. spending per capita ($5,635) was two-and-a-half times the comparable median for OECD countries ($2,280). It also represented a significantly greater percentage of gross domestic product (15% vs. 8%).

Higher prices, not higher utilization or resources, appears to be the main driver. More spending does not translate into more services. In 2003, the U.S. had fewer physicians, nurses, and hospital beds than the median OECD country. And while the U.S. adopts many clinical technologies earlier than other nations, ultimately it does not make them more widely available, nor does it always provide the most sophisticated procedures compared with other countries.

Savings Potential of HIT Investment

The health spending disparity could widen as other countries begin to reap savings from national HIT systems. Although no firm data exist to quantify potential savings, one estimate calculates the adoption of electronic health records could produce efficiency and safety savings of $142 billion in U.S. physician offices and $371 billion in U.S. hospitals over the next 15 years. Yet the long-term savings come with a hefty initial price tag. Establishing a national HIT network would cost the U.S. an estimated $156 billion over five years, with an additional $48 billion in operating costs.

Other OECD countries have already begun making substantial investments in HIT, although the scope and type of systems vary widely. The Canadian government, for instance, originally provided $420 million in funding but now expects to spend $1.2 billion to implement its system. In 2002, the United Kingdom announced that its HIT system would cost $4.3 billion over three years, but later more than doubled its estimate and timeframe to $10.8 billion over 10 years. In Australia, more than $1.1 billion in HIT projects are in the works.

In the U.S., pending legislation would authorize a total of $280 million in the next two years, with unspecified funds through 2010. While not yet law, the legislation would also establish a cooperative to adopt standards and authorize grant programs to encourage HIT adoption.

Other Nations Have Head Start on HIT

It was not until April 2004 that the U.S. established the Office of the National Coordinator for Health Information Technology. Several OECD nations are many years ahead in their efforts. Germany, which in 1993 became the first country to begin investing in HIT, expects to complete this year a national network, including "smart card" technology. Canada, whose efforts date back to 1997, expects to have electronic health records for half the population by 2010. The U.K.'s program, the most expensive and comprehensive internationally, plans by 2014 to have incorporated an integrated care record service, electronic appointment and prescription transmission systems, and a national network for all providers. Meanwhile, Norway and Australia have at least a six-year jump on the U.S.

The U.S. could gain ground, the authors say, by avoiding the problems that have plagued other nations' efforts. For example, lack of interoperability among various providers' HIT systems has presented difficulties in many countries. In addition to creating standards to ensure interoperability, many governments have made public subsidies contingent upon interconnectivity.

To counter privacy concerns, each country engaged in HIT is developing standards that govern how patient data are collected, used, and disclosed. In Germany, for example, the collection of administrative data (e.g., copyament status) is required, but patients can decide how clinical information—such as diagnoses and drug usage—is used and disclosed.

Other countries also recognized early on the importance of involving physicians. England and Australia, for instance, identified early adopters and used them to convince their colleagues of the value of HIT. In the U.S., proposals suggest paying physicians for each EHR submission or incorporating HIT rewards into pay-for-performance systems.

Efforts to Implement Health Information Technology in Six Countries, 2003

	U.S.	Australia	Canada	Germany	Norway	U.K.
Initial year of national IT effort	2006	2000	1997	1993	1997	2002
Expected year of complete implementation	2016	Undefined	50% by 2009	2006	2007	2014
Estimate of total investment (as of 2005)*	$125M	$97.9M	$1.0B	$1.8B	$52M	$11.5B
Total investment per capita (as of 2005)**	$0.43	$4.93	$31.85	$21.20	$11.43	$192.79

* In U.S. dollars. Exchange rates as of September 2005: $1 U.S. = $1.31 AUS; $1.19 CAN; $0.80 EURO; $6.21 NOR; $0.54 U.K.

** In U.S. dollars. Per capita is based on 2003 population numbers from the Organization for Economic Cooperation and Development (OECD).

Source: Adapted from G. F. Anderson et al, "Health Care Spending and Use of Information Technology in OECD Countries," *Health Affairs*, May/June 2006 25(3):819–31.