Study finds creating unique health ID numbers would improve health care quality, efficiency

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Creating a unique patient identification number for every person in the United States would facilitate a reduction in medical errors, simplify the use of electronic medical records, increase overall efficiency and help protect patient privacy, according to a new RAND Corporation study.

Although creating such an identification system could cost as much as $11 billion, the effort would likely return even more in benefits to the nation's health care system, according to researchers from RAND Health.

"Establishing a system of unique patient identification numbers would help the nation to enjoy the full benefits of electronic medical records and improve the quality of medical care," said Richard Hillestad, the study's lead author and a senior principal researcher at RAND, a nonprofit research organization. "The alternative is to rely on a system that produces too many errors and puts patients' privacy at risk."

Federal legislation passed over a decade ago supported the creation of a unique patient identifier system, but privacy and security concerns have stalled efforts to put the proposal into use.

As adoption of health information technology expands nationally and more patient records are computerized, there have been increasing calls to create a system that would make it easier to retrieve records across

varying systems such as those used by doctors and hospitals.

RAND researchers examined the costs of creating a unique patient identification system, compared the error rates of such a system and its alternatives, and examined the operational advances and disadvantages of the technology.

The RAND study concluded that one of the primary benefits created by broad adoption of unique patient identifiers would be to eliminate record errors, and help reduce repetitive and unneeded care.

In the absence of unique patient identifiers, most health systems use a technique known as statistical matching that retrieves a patient's medical record by searching for attributes such as name, birth date, address, gender, medical record numbers, and all or part of a person's Social Security Number.

Reviewing past research studies, RAND researchers estimated that statistical matching returns incomplete medical records about 8 percent of the time and exposes patients to privacy risks because a large amount of personal information is exposed to computer systems during a search.

The study also concluded that many of the privacy concerns related to a unique patient identification system could be addressed through the creation and enforcement of laws that severely punish those who misuse information retrieved with a health ID number.

"Our research suggests that it's easier to safeguard patient privacy with a records system that makes use of a unique health ID rather than a system that uses statistical matching," Hillestad said.

One way to deal with privacy concerns might be to allow to people to voluntarily enroll in a unique patient identification system, researchers

say. Such an approach would allow a unique health identifier system to demonstrate that it can be used without compromising patient privacy and can be more accurate than current statistical matching systems.

Some proposals have suggested using patients' Social Security Numbers as a medical identifier. But the RAND study found Social Security Numbers are a poor option because they are so widely used and they pose risks of identify theft.

A genuine unique patient identification system would be more secure because it could include safeguards such as check codes that allow numbers to be easily screened for input errors. Such check codes are mathematical combinations of the other digits in the number and are commonly used in other digital IDs such as those in the product bar codes scanned at checkout counters.

Source: RAND Corporation