
The center at UCSD is interested in developing sensors that might detect dehydration, nutritional deficiencies, and other factors that can be “precursors for falls that come from frailty, balance problems, poor muscular function, and many other problems of aging,” said Kevin Patrick, MD, a professor of family and preventive medicine at UCSD and a collaborator of Wang’s. Such home-based monitoring might help “sort out who needs help and who seems to be doing okay,” he noted. Having this information in real time might allow a clinician to intervene before a fall occurs.

A Massachusetts-based biotech company, MC10, is marketing a business card-sized biosensor to researchers studying patients with chronic diseases (http://bit.ly/2TkP2Z). The pharmaceutical company UCB is using the device to monitor patient movement in a study of patients being treated for Parkinson disease (http://bit.ly/ITb6tv).

Challenges Ahead

Before these sensors can help physicians monitor their patients in real time, more clinical validation is needed to ensure their measurements correlate with blood levels of the measured compounds and the individual’s physical condition, according to Gao.

Most of the devices are really at the “proof-of-concept stage,” Patrick added. Much work lies ahead of clinical use, particularly for devices intended for older individuals or those living with chronic disease, cautioned Patrick.

“Usability will be key for these,” he said. “Can normal people figure out how to use them and use them easily?”

Another challenge will be helping physicians meaningfully use the volumes of data these devices create. Patrick noted that most physicians are already struggling to use data from health apps and fitness trackers in the limited time of an office visit. He predicted that technology companies would step into a “middle-man” role, distilling the data down to clinically important information.

“On balance, we’re still pretty early [in development] with almost all of these sensors,” Patrick said. “But the creativity and innovation applied to these issues by these engineers is truly amazing and will likely be transformative to many aspects of medicine.”

The JAMA Forum

Why Many Medicare Beneficiaries Cling to an Allegedly Worse Deal

Uwe E. Reinhardt, PhD

Under the Medicare Prescription Drug, Improvement and Modernization Act of 2003 (http://1.usa.gov/1XkNH0V), Congress granted private Medicare Advantage health plans (http://kaiserf.am/linNZU) more money per Medicare beneficiary than it granted traditional, government-run Medicare. In other words, the per beneficiary cost paid by the US taxpayers was higher for those enrolled in the private plans than for those enrolled under the traditional, government-run Medicare program.

In addition to these extra payments from government, the private Medicare Advantage plans are able to cut costs through tactics forbidden to traditional Medicare, such as conducting cost-effectiveness analysis for coverage decisions and offering limited networks of health care providers. As a result, the Medicare Advantage plans have been able to offer Medicare beneficiaries more benefits at lower premiums than what is available to them under traditional Medicare—evidently a better deal.

So it’s not surprising, as a recent JAMA Forum post noted (http://bit.ly/Isp8qN7), that the Medicare Advantage program has grown in popularity. Currently, about 30% of approximately 55 million beneficiaries are enrolled in a Medicare Advantage plan compared with only 6% a decade ago (http://kaiserf.am/linNZU).

But even so, about 70% of the approximately 55 million Medicare beneficiaries still prefer the “worse” deal, traditional, government-run Medicare. What can explain this revealed preference?

Freedom of Choice

One answer, as the JAMA Forum post hinted, is that traditional Medicare still offers beneficiaries complete freedom of choice among physicians, hospitals, and other professionals or facilities providing health care. In contrast, under Medicare Advantage, beneficiaries are confined to the limited network of such health professionals and facilities chosen by their insurer. Concerns have been raised about the adequacy of networks in the plans, and a September 2015 report (http://1.usa.gov/1FNgvY8) from the US Government Accounting Office recommended that the Centers for Medicare & Medicaid Services increase its oversight of Medicare Advantage networks.
Does the general US public actually share the idea that freedom of choice among insurers is more important than freedom of choice among physicians, hospitals, and others who offer health care or is that merely the preference of a policy-making elite that forces the public to accept more limited choice for the sake of cost containment? It is an important question in light of the endless debate over restructuring Medicare.

The Issue of Trust
Another factor that may explain the revealed preference among Medicare beneficiaries for traditional Medicare might be the issue of trust.

It is said that in the eyes of US public, government is incompetent and cannot be trusted. But is that really so?

The strong revealed preference for traditional, government-run Medicare suggests quite the opposite. So does the tenacity with which US veterans defend the existence of the Veterans Health Administration health care system, the purest form of socialized medicine in the world; the public’s staunch opposition to privatizing Social Security, their government-run pension system; or even the most conservative state governor’s swift solicitation of assistance from the Federal Emergency Management Agency whenever natural disaster strikes. Would these same governors have the same trust in, say, an emergency management system operated by a consortium of private casualty insurers?

Enrolling in traditional Medicare can be likened to being married to a spouse who, if not generally thrilling, is an always faithful and reliable companion. The social contract under traditional Medicare is not easily changed and can be changed only after much open debate.

By contrast, by their very nature, private enterprises cannot be more than ephemeral companions. They may be acquired by another company with different ideas of management and social obligations, and their contracts with customers are easily changed, at the behest of boards and managers who make those decisions in secret. The limited networks of physicians, hospitals, and other health care professionals and facilities under Medicare Advantage can easily change over time, as can be the benefit packages they offer.

It is good that older adults in the United States have a choice between traditional, government-run Medicare and the private Medicare Advantage plans. Ideally, US veterans would be offered the same choice. But policy makers should think twice before writing off traditional, government-run Medicare, which evidently has served the elderly well enough to remain their most popular choice.

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