Technological Changes Can Transform Medicine by 2020: A Conversation with the Futurist Jim Carroll

By Rosemary Frei, MSc, Medical Writer

At the American Medical Group Association 2013 Institute for Quality Leadership annual conference, a session focused on transforming the US healthcare system was presented by Jim Carroll, author of Ready, Set, Done: How to Innovate When Faster is the New Fast,¹ who discussed the ways in which the unprecedented technological changes in medicine can transform the system in a positive way, in a very short time.²

In a brief discussion after the meeting, Mr Carroll offered some food for thought for those involved in the “business” of medicine. He explained that he tells healthcare experts all across the country, “I know you are sick of the Affordable Care Act. But the future of medicine has nothing to do with government—it’s got everything to do with science, demographics, new forms of technological applications, such as genomics, new forms of equipment, and other innovations.”

Mr Carroll suggested that “by the year 2020, we absolutely can harness these to turn the healthcare system from one in which we wait until patients are sick and then we fix them, to understanding what things are going to go wrong in advance in order to avoid those problems.”

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The system that Mr Carroll says is well within reach will have characteristics such as being consumer-driven and retail-oriented for treatment that is not related to critical care, and encompassing many cost-saving technologies.

“One example is in the field of pharmacogenomics, involving pharmaceutical products targeted to particular genes for particular cancer treatments. The cost of sequencing machines has plummeted, and they could become low-cost items. Individuals could buy machines that tell them whether they have certain gene sequences that make them prone to cancer,” he said. Furthermore, “when this type of technology becomes ubiquitous and costs just pennies, it transforms everything in healthcare.”

Smartphone apps are also proliferating and becoming very inexpensive, and are increasingly being applied in medicine. More than 17,000 healthcare software apps are available for smartphones, according to Mr Carroll, and as many as 78% of consumers have expressed interest in such apps. For example, consumers are using medical apps to monitor their glucose levels and better understand their healthcare circumstances and options.

“The patient is changing; the consumer is changing. And we all need to align ourselves to the changes that are occurring.” He also pointed to the virtualization of healthcare, with hospitals extending into the community.

“In the near future, a lot of non-critical care patients will be able to remain in their homes instead of being admitted to the hospital, and doctors will be able to monitor their vital signs remotely, using real-time analytics and location-intelligence technologies,” Mr Carroll predicted. He says that because medical knowledge doubles every 6 years, the pace of understanding new medical information is increasing as a result of the power of technology.

“I tell people in the healthcare system, ‘Don’t fixate on the negatives but on the positives. Think about how it’s good for your patients and their patients to embrace these changes,’” said Mr Carroll. “Demographic changes mean healthcare administrators, providers, and patients are becoming more welcoming to technology-driven changes in the sector. And that provides huge opportunities for improvement through innovation.” The future of US medicine, according to Mr Carroll, is bright.

References