Editorial

Does not compute

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My computer beat me at chess, so I beat it at kickboxing.
Demetri Martin

The May issue of *Canadian Family Physician* features 2 original research articles examining different facets of electronic medical record (EMR) use in family medicine in Canada. A national survey of family physicians by Miedema and colleagues (**page e284**) reveals that, while nearly all those surveyed reported using a computer in their practices for administrative and scholarly work, those working in newer models of primary care such as family health teams were more likely to incorporate computers into the provision of patient care (74% vs 57% of those working in traditional models of care).[1]

A study of the quality of EMR documentation of health problems in 18 primary care clinics across Manitoba by Singer and colleagues (**page 382**) reveals that problem-list completion was higher in clinics where physicians were paid by salary or capitation and lower in fee-for-service practices, but that the overall documentation rates were still low.[2] The results of both studies have implications for the use of EMRs for both quality improvement initiatives and primary care research in Canada.

The widespread use of computers and the adoption of EMRs in primary care has carried much promise. Through improved documentation, improved communication, sharing of information across transitions in care, improved patient safety, and improved quality of care, EMRs could substantially contribute to what Berwick and colleagues have called the Triple Aim in health care: improving the health of populations, enhancing the patient experience of care, and reducing per capita cost.[3]

Further, as powerfully described by Frank Sullivan in his 2015 James Mackenzie Lecture,[4] we are on the brink of fulfilling Mackenzie's vision "to do for medicine what the Atomic Theory had done for chemistry,"[4] by both capturing the rich data contained within every single general or family practice consultation and linking that data to other large databases to be used by researchers with the ultimate goal of achieving "more accurate diagnosis, better-targeted treatments, and ultimately better outcomes."[4]

Sadly, the achievement of both the Triple Aim and the accumulation of atomic data in primary care might come at considerable cost to family physicians themselves.

Cet article se trouve aussi en francais à la **page 343.**

There is strong evidence that dissatisfaction with work-life balance and burnout are on the rise among physicians (in contrast to the general working population, whose rates of dissatisfaction and burnout have remained stable and at about half those of physicians), with front-line providers such as emergency and family physicians at the greatest risk.[5,6] The adoption and use of EMRs has been shown to be a significant contributor ($P<.03$),[7] with less time spent in direct patient care, a growing burden of data entry and information management, and the blurring of the boundaries between professional and personal life, with the attendant risks of dissatisfaction, burnout, and mental illness.

How might we achieve the benefits of the Triple Aim and harness the power of atomic data for society, but mitigate the risk to family physicians?

Bodenheimer and Sinsky have proposed the incorporation of a fourth aim—the care of the provider—and have suggested some practical ways to achieve this aim, including team-based documentation, previsit planning and preappointment laboratory testing, allowing nurses and medical assistants to take on preventive care and chronic care health coaching under physician-written standing orders, standardized and synchronized work flows for prescription refills, and co-locating teams so that physicians work in the same space as their team members.[8]

To paraphrase James Mackenzie,[4] while it must be borne in mind that all great enterprises are based on work done by individuals whose past is lost in oblivion, in the present we must attend to the well-being of all of those contributing to this great enterprise, including family physicians.

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