years ago, it began requiring codes of conduct as a condition of hospital accreditation. The codes have to define acceptable, disruptive and inappropriate behaviours, Schyve says, adding that the purpose of such codes is to encourage a culture of safety, where people feel free to report adverse events, close calls, hazards and unsafe conditions. Intimidation in the workplace discourages such reporting.

"Specific behaviours can sour the work environment," says Schyve. "We often use the phrase 'disruptive behaviors,' though that is probably not the best phrase. A better one would be 'intimidating behaviours,' which keep people from reporting important incidents."

As for criticisms that hospital codes of conduct single out doctors and don't apply to other medical staff members, that is not the case at all, according to a Joint Commission paper, *Behaviors that undermine a culture of safety* (www.jointcommission.org/sentinel_event_alert_issue_40_behaviors_that_undermine_a_culture_of_safety/). It notes that although most research in the area has focused on "disruptive behaviors among physicians and nurses, there is evidence that these behaviors occur among other health care professionals, such as pharmacists, therapists, and support staff, as well as among administrators."

Therefore, the Joint Commision suggests that all hospital employees, "both physicians and non-physician staff," be educated on appropriate professional behaviour as defined in their codes. Furthermore, hospitals should "enforce the code consistently and equitably among all staff regardless of seniority or clinical discipline."

US hospitals can't be forced to adopt codes of conduct, but without accreditation from The Joint Commission, they can't receive payments from Medicaid or Medicare, so most do — around 80%, says Schyve. Hospitals are granted latitude in terms of the exact content of their codes, and, for the most part, there have been few complaints about them.

"There has been very little negative reaction from hospitals," says Schyve.

Hospitals that adopt codes of conduct should also determine how they will handle cases that violate the code, says Kathryn Clarke, senior communications coordinator for the College of Surgeons of Ontario. "The second part is establishing a protocol so that if the code of conduct is breached, you know how people will be treated."

The best way to handle incidents is to intervene early, identify the people involved and the alleged violations, and then resolve the issue before it escalates, according to the college's guidebook for managing disruptive physician behaviour (www.cpso.on.ca/policies/positions/default.aspx?id=1730). There is nothing unusual, adds Clarke, about employers clearly defining the expectations they have for their employees.

"Codes of conduct are not unique to hospital settings," says Clarke. "It's a universal principal. You set expectations for people in advance, and you implement a fair process for dealing with concerns as they come up." — Roger Collier, *CMAJ*

CMAJ 2011. DOI:10.1503/cmaj.109-3838

Audit concludes Infoway missed program targets

There's an ongoing disconnect between Canada Health Infoway's plan for a national electronic health record (EHR) system and a model that would be useful at the physician–patient level, according to an external performance evaluation commissioned by the agency.

While largely positive, the evaluation of the federal government's $2.1-billion investment in the federal ehealth agency cautions that Infoway hasn't yet adequately addressed the needs of patients and health care providers.

Or, as a government information officer told the auditors during their study: "Infoway has still not demonstrated a real working model at the coal-face (be it the clinician, physician, clinic or other level)."

But Dan Strasbourg, Infoway's director of media relations, takes issue with that proposition. A working model has been developed, Strasbourg writes in an email. "We would strongly suggest that you visit Alberta and see the Netcare solution that is being actively used by over 20,000 clinicians. Furthermore, PEI [Prince Edward Island] has implemented their EHR solution. In addition, Mohawk College in Hamilton has developed a working model of the interoperable EHR which they demonstrate on a regular basis."

The performance evaluation also indicates that Infoway has delayed release of a revised strategy that could shift its focus toward the provision of electronic medical records at the physician–patient level.

Infoway has missed its self-established targets in all eight major program areas, and has only set adoption targets (basic accountability indicators which are used to measure electronic records usage) for about 40% of its spending in areas where such targets would be warranted, according to Bell Browne Molnar & Delicate Consulting, an Ottawa, Ontario-based management consulting firm, which conducted the evaluation.

Strasbourg, though, says the failure to reached established targets is a function of jurisdiction. "Infoway is dependent on the ability of the jurisdictions to implement the solutions. ... Although progress may have been slower than the jurisdictions originally expected on some components, at a program level the national progress is measured through the 50 per cent goal line target for Canadians having an EHR available and that was achieved in March, 2011."

While endorsing Infoway's governance and management practices, as well as its efforts to hammer out national standards for health information technologies, the auditors indicated there's a need for change. Infoway should be rethinking its plans "if pro-

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jects are not completed, or adoption targets are not met."

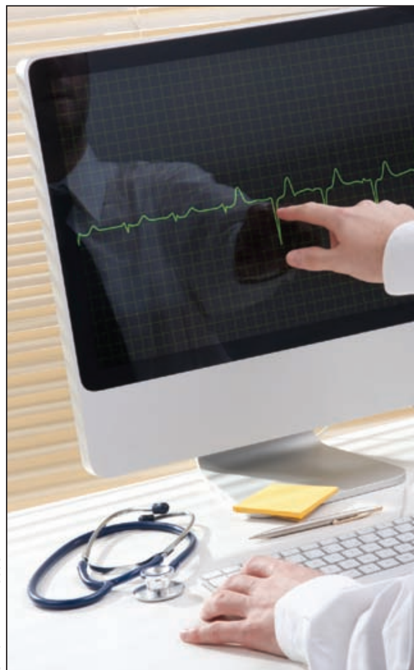
The evaluation also indicated that there have been discrepancies in the information that Infoway provides to the government or the general public. For example, it notes that while pitching the federal government for an additional $500 million during the 2010 budget exercise, Infoway indicated that 38% of physicians would have access to electronic medical records as of Mar. 31, 2010. But once Infoway got the money, it revealed the true level was 22%, or 60% less than the government was led to believe.

But Strasbourg again cast the discrepancy as a function of jurisdictional woes. "Infoway's progress is entirely dependent on the jurisdictions," he writes. "Six elements are required to be in place for Infoway to report progress against the 50% goal line. In many cases the jurisdiction had many of the elements fully in place but were missing the final one or two in order to actually be counted. The delay of the final element(s) was a key contributing factor, but in 2010/11 with a focus put on the final element, the 50% target was achieved."

The evaluation also indicated that "engagement with physicians" is the "most difficult challenge" that Infoway faces. The evaluators noted that just 16% of the $2.168 billion that the agency has earmarked to date is devoted to helping clinicians acquire and utilize electronic health information systems. Even when the federal government allocated $500 million to that task in 2010, Infoway diverted more than 30% of the new money to other projects.

Again, Strasbourg takes issue with the numbers. "The performance audit was conducted on the funding received by the corporation as of the signature of the 2003 funding agreement with the Federal Government ($1.16B). In effect 100 per cent of the investments Infoway made on that 2003 funding (drugs, labs, DI [diagnostic imaging], etc) have already helped both clinicians and patients with respect to access quality and productivity," he writes.

The disconnect between electronic records at the national and the clinician level also appears to lie at the root of Infoway delays in the development of a new "blueprint" guiding future endeavours. According to the evaluation, the new blueprint was intended to "broaden the scope to include consumer health, computerized physician order entry, decision support, timely access to available services and chronic disease management." It had been scheduled to be released in September 2010 but, according to the evaluation, is still in draft form, after being criticized by Infoway insiders as being "too conceptual" and offering too little at the physician–patient level.



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An external audit indicates that Canada Health Infoway earmarked just 16% of $2.168 billion to help clinicians acquire and utilize electronic health information systems.

But Strasbourg says the blueprint is completed and "has been extensively communicated to stakeholders through various forums. ... Stakeholders decide when to implement, what to implement, and a migration plan for implementation."

Several ehealth experts say the agency's failure to connect with physicians and patients constitutes a setback for primary care reform.

"This evaluation shows us an organization that failed to put patients first," says Dr. Michael Graven, a neonatologist and software designer at the Izaak Walton Killam Health Centre in Halifax, Nova Scotia. "Improved health incomes come from eHealth when health providers and patients are placed at the center. But Infoway has always placed its own information systems at the center of its vision."

Infoway's strategy to date has been "a clear miss," Graven adds. "They need to start over again."

Mary Gibson, an Edmonton-based consultant involved in Alberta's EMR program, says that while there has been significant progress over the past seven years, "we need to concentrate on connecting physicians and supporting them in the meaningful use of their EMRs."

"Physicians continue to be largely absent at EHR tables. They are consulted but they are not decision makers. This is not consistent with best practices in governance and management of information technology," she says, adding that there's a need for a national debate on the issues.

Former Infoway officials say that agency decision-making is dominated by software industry veterans who lack clinical experience. The agency has now spent much of its available monies on big-ticket projects that may never be of front-line clinical value, they argue.

Other observers are more sanguine, Vivek Goel, president and CEO of the Ontario Agency for Health Protection and Promotion, says Infoway's efforts should be viewed as a work-in-progress, which has already yielded tangible benefits in health surveillance. Tackling ehealth innovation is complex and should not be viewed through one simple lens, he cautions.

But Goel is frustrated by the lack of progress in getting systems into physician's offices. It means that even children's immunization records are managed through "outdated" methods.

Infoway's failures are similar to those experienced in other nations, says Robin Gauld, director of the Centre for Health Systems at the University of Otago Medical School in Dunedin, New Zealand. — Paul Christopher Webster, Toronto, Ont. and Wayne Kondro, *CMAJ*

CMAJ 2011. DOI:10.1503/cmaj.109-3860

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