

## FOR THE RECORD

Published at [www.cmaj.ca](http://www.cmaj.ca) between Oct. 12 and Oct. 28

## More elderly Ontarians waiting longer in hospitals for beds in long-term care facilities

An increasing percentage of senior citizens in the province of Ontario are being kept in acute care hospital beds because spaces in community or long-term care (LTC) facilities are unavailable, according to a report commissioned by the government from the Institute for Clinical Evaluative Sciences in Toronto and the Ontario Home Care Research Network.

Moreover, seniors are typically waiting much longer to be placed in long-term care facilities or to be properly assessed for their home care needs, according to the report, *Aging in Ontario: An ICES Chartbook of Health Service Use by Older Adults* ([www.ices.on.ca/file/AAH%20Chartbook\\_interactive\\_final\\_2010.pdf](http://www.ices.on.ca/file/AAH%20Chartbook_interactive_final_2010.pdf)).

“Overall, among Ontario seniors, the percentage of inpatient days accounted for by ALC [Alternate Level of Care] patients was 23% in 2008/09. This percentage was highest among those aged 85 and older (33%) and lowest among those aged 65–74 (14%),” states the report. By comparison, in 2002/03, the percentage was about 23% for those older than 85 and about 9% for those aged 65–74. As well, “the percentage of ALC days increased over time for all age groups: by 52% for those aged 65–74, by 46% for those aged 75–84, and by 34% for those aged 85 and older.”

The median length of the wait for a bed in a long-term care facility, such as a nursing home, or a charitable or municipal home for the aged, more than doubled between 2003/04 and 2008/09, and 1 in 10 seniors on the wait list now have to wait well over a year to be placed, the report says.

“Overall, examining all priority levels, Ontario seniors waited a median of 103 days for LTC placement in the fourth quarter of 2008/09. By 618 days, nine out of 10 individuals (the 90th percentile) were placed in LTC. Over the study period, time to placement increased for both the median wait time (from 45 days to 103 days, a 129% increase) and the 90th percentile wait time (from 452 days to 618 days, a 37% increase).”

The number of seniors in Ontario rose slowly but steadily between 2002–03 and 2008–09, from 1.52 million to 1.728 million (and from 16.4% of the population to 16.9%). In 2009, there were 912 839 Ontarians between the ages of 65–74, 599 694 between the ages of 75–84, and 215 547 over age 84 (from 10% to 12% of the total proportion of seniors in the province). Demographically, the percentage of seniors, by sex, in the province was unchanged: 56% of Ontario seniors are female and 44% are male. About 14% live in rural areas. About 8% are considered “frail,” using criteria derived a system developed by Johns Hopkins University in Baltimore, Maryland.

The report also indicates that while the rate of unscheduled emergency department visits by Ontario seniors was “fairly stable at approximately 520 visits per 1,000 seniors” in each of the seven years, with the exception of the anomalous year in which there was an outbreak of Severe Acute Respiratory Syndrome, there are significant differences in the rate of visits by region, age group and sex. “Regardless of sex, the rate of visits increased substantially with age. With each 10-year increase in age, the rate of unscheduled ED visits increased by over 40%. Men consistently showed a higher rate of unscheduled ED visits than women, and the disparity increased across age groups. Among adults aged 65–74 (the youngest group), the difference between men and women was approximately 20 visits per 1,000 seniors; among those aged 85 and

older (the oldest group), the difference widened to over 120 visits per 1,000 seniors.” — Wayne Kondro, *CMAJ*

## A world of pharmaceutical trends

There is a “paradigm shift” occurring within the global pharmaceutical industry as a consequence of demographic, economic and clinical trends, Switzerland-based Novartis AG Chief Executive Officer Joe Jimenez said in a key note lecture to the World Health Summit in Berlin, Germany.

“The traditional pharma sales model is no longer working,” Jimenez said. “Only about 24% of physicians will spend more than two minutes with a sales rep.”

As a result, the pharmaceutical industry is shifting a portion of its development activities, and building its sales pitches, around products that are aimed at “demonstrating positive patient outcomes,” Jimenez said. “It pushes us toward more personalized medicine.”

The latter primarily involves a move toward the development of what are called “companion diagnostics,” which essentially look for genetic, proteomic or gene expression markers to predict whether a drug will actually work in a patient, or exactly how high of a drug dose is needed for it to have therapeutic value in that patient.

With drug sales flagging worldwide, and fewer and fewer breakthrough drugs entering into the market, companies have had to explore new development models that demonstrate “greater patient benefits,” Jimenez said. That’s fueled by the fact that “in the United States, less than 60% of patients actually respond to the treatment that they get.”

Jimenez also said that many firms, including Novartis, are also looking to expand their development of products that help physicians to remotely monitor

whether patients are complying with their drug regimens.

As well, the industry is becoming more involved in developing various electronic patient tools, such as an iPhone application for vaccine management, or creating social networks for patient groups like transplant recipients.

When asked by a summit delegate how payment systems will follow the new paradigm, Jimenez replied: "We have not figured that out. What we know is that we have to shift our model."

Jimenez also said that, unlike many other pharmaceutical industry giants, Novartis is not moving toward complete outsourcing of most of its research to the academic sector and will continue to ramp up its basic research capabilities.

Later asked what percentage of Novartis outlays are now being used in the development of products other than drugs, Jimenez told a press conference that "it's still a very, very small piece" but declined to identify a specific percentage.

Pharmaceutical representatives from other firms attending the summit indicated privately that their company's forays into nondrug products such as companion diagnostics are still embryonic and typically involve outlays on the order of about 5% of expenditures.

But Canadian-born Christopher Viehbacher, chief executive officer of France-based sanofi-aventis, later noted in a key note lecture to the summit that his firm has "decided to become a health care company, not just a pharma company."

In the case of a disease such as diabetes, the firm would look to provide not just drugs but also glucose testing devices and other products associated with its management, the graduate of Queen's University in Kingston, Ontario, added. "That's where we're going as a company." — Wayne Kondro, *CMAJ*

## Canada behind in using and spending on health information technologies

**C**anada lags behind other countries in using information and communication technologies

(ICTs) in the health system, according to a Conference Board of Canada report released on Oct. 12.

The report, *A Call for Collaborative Leadership: Implementing Information and Communications Technologies in Canadian Health Systems*, attributes Canada's slow progress to a lack of cooperation between health organizations and suggests a four-step plan for catching up to international peers ([www.conferenceboard.ca/documents\\_ea.aspx?did=3802](http://www.conferenceboard.ca/documents_ea.aspx?did=3802)).

The report criticizes Canadian hospitals for allocating only 1.5% of their budgets to ICTs, despite the potential benefits of such technologies for improving health outcomes and patient engagement. In comparison, Canada's international peers set aside an average 4.4% of their budgets to develop and implement ICTs.

Canada also has a "weak" record on specific ICT initiatives, like implementing electronic health records, the report suggests. It cites a recent Commonwealth Fund survey that found only 37% of Canadian physicians use electronic records, compared to 99% of physicians in the Netherlands and 97% of those in New Zealand and Norway.

A "lack of cooperation among jurisdictions and organizations, concerns about privacy and security and perceptions of financial risks" have contributed to Canada's slow progress in implementing health ICTs, said Diana MacKay, director of education and health for the Conference Board of Canada, in a news release. "The concerns are legitimate, but they do not constitute immovable barriers."

The report highlights the lack of trust and cooperation between Canadian health jurisdictions and organizations as the most significant of these barriers. There are relatively few incentives for jurisdictions and organizations to implement shared ICT systems. Organizations that have already adopted unique ICT platforms can also feel threatened by proposals for system-wide changes.

In a bid to overcome this insular mindset, the report suggests organizations each appoint a "champion" for ICT initiatives from their most senior executives. Those individuals would be required to

collaborate on cross-jurisdictional and organizational projects.

To give "champions" the resources to make significant changes and to bring Canada's overall spending on health ICTs up to par with the international average, the report also recommends that health organizations set aside between 4% and 5% of their budgets to develop and implement such technologies.

Other recommendations in the report's four-step plan include convening a national coalition on health ICTs to improve communication between jurisdictions, and creating a national council to discuss system-wide strategies and oversee implementation committees for specific ICT initiatives. — Lauren Vogel, *CMAJ*

## Health spared as British chancellor wields the axe

**A**s required by the coalition agreement between the Conservative and Liberal parties that placed David Cameron into 10 Downing Street, health spending in the United Kingdom emerged essentially, but not entirely, unscathed as Chancellor George Osborne announced the outcome the government's spending review and unveiled £81 billion in public spending cuts over the next four years, the largest reduction in decades.

But the National Health Service (NHS) budget will rise by 0.4% in real terms between 2011 and 2015, from £98.7 billion in fiscal 2010–11 to £109.8 billion in fiscal 2014–15, according to the government blueprint for reining in the British deficit, *Spending Review 2010* ([www.hm-treasury.gov.uk/spend\\_sr2010\\_documents.htm](http://www.hm-treasury.gov.uk/spend_sr2010_documents.htm)).

The wide-ranging cuts will see most departmental budgets cut by an average 19%, £7 billion slashed from welfare programming, a 20% reduction in police budgets over the five years, an increase in the state pension age to 66 from 65 by the year 2020, a hefty increase in regulated rail fares, the introduction of a permanent bank levy, a 7% cut in allocations to local county, borough and district councils, the reduction of 3000 prison spaces,

and pink slips for a projected 490 000 public sector employees.

Along with the modest increases in the NHS budget, the Department of Health will receive: “an additional £1 billion a year for social care through the NHS, as part of an overall £2 billion a year of additional funding to support social care by 2014–15; a new cancer drugs fund of up to £200 million a year; expanding access to psychological therapies; continued funding for priority hospital schemes, including St Helier, Royal Oldham and West Cumberland; and capital spending remaining higher in real terms than it has been on average over the last three Spending Review periods” ([http://cdn.hm-treasury.gov.uk/sr2010\\_chapter2.pdf](http://cdn.hm-treasury.gov.uk/sr2010_chapter2.pdf)).

The modest NHS increases, though, will still require that it “make efficiencies to deal with rising demand from an ageing population and the increased costs of new technology. The NHS has already committed to make up to £20 billion of annual efficiency savings by the end of the Spending Review period through the Quality, Innovation, Productivity and Prevention programme. To ensure spending is focused on priorities, some programmes announced by the previous government but not yet implemented will not be taken forward. This includes free prescriptions for people with long term conditions, the right to one-to-one nursing for cancer patients, and the target of a one week wait for cancer diagnostics.”

The blueprint also notes that the department will also save money through previously announced structural reforms, including the abolition of “Primary Care Trusts and Strategic Health Authorities by 2013, removing whole tiers of NHS management, saving money and empowering frontline professionals. The Government will also ring fence funding for public health to improve the health of the whole population, with a premium for tackling pockets of particular ill health and reducing health inequalities. Greater diversity and efficiency of providers will be encouraged, with patients able to use independent providers paid for by the NHS. The number of Arms Length Bodies will also be reduced from 18 to a maximum

of 10 by 2013” (*Equity and Excellence – Liberating the NHS, Department of Health*, [www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH\\_117353](http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_117353)). — Wayne Kondro, *CMAJ*

## No teeth please, we're Canadian

There is no need for Canada to establish an oversight agency with the authority to police scientific misconduct, concludes a report by the Council of Canadian Academies expert panel on research integrity.

Rather, a “non-adversarial,” educational and advisory body should be established to communicate “best practices” within the nation’s universities and laboratories about how to handle misconduct, the panel recommends in its report, *Honesty, Accountability and Trust: Fostering Research Integrity in Canada* ([www.scienceadvice.ca/uploads/eng/assessments%20and%20publications%20and%20news%20releases/research%20integrity/ri\\_report.pdf](http://www.scienceadvice.ca/uploads/eng/assessments%20and%20publications%20and%20news%20releases/research%20integrity/ri_report.pdf)).

Although concerns have been raised that the incidence of misconduct is rising and that the current decentralized, university-based system for policing miscreants is inadequate because institutions are averse to bad publicity and fear withdrawal of funding in cases where there has been misconduct ([www.cmaj.ca/cgi/doi/10.1503/cmaj.070213](http://www.cmaj.ca/cgi/doi/10.1503/cmaj.070213) and [www.cmaj.ca/cgi/doi/10.1503/cmaj.109-3099](http://www.cmaj.ca/cgi/doi/10.1503/cmaj.109-3099)), the expert panel argued that a legislated oversight system, like those in the United States, Denmark and Norway, “would likely be hindered in its capacity to also effectively carry out the functions of promotion and prevention.”

It also contended that “legislated models are frequently based on falsification, fabrication, and plagiarism (often accompanied by indeterminate allusions to other questionable practices). This approach, however, fails to adequately address a wide range of ethically unacceptable behaviours such as laxity, negligence, and recklessness.”

A nonlegislated system would be more flexible, the panel said. To that end, it recommended the creation of a

Canadian Council for Research Integrity (CCRI). “Along with the responsibility for implementing promotion and prevention, the CCRI’s other key roles would include (i) the provision of confidential advice; (ii) information gathering; (iii) the dissemination and reporting of information; and (iv) the development and promotion of best practice standards with respect to education, training, and effective self-assessment policies and practices. The CCRI would be set up as an independent, non-adversarial body to assist all members of the research community. Since the CCRI would not be involved in sanctioning or enforcement, it should be seen as a trusted entity to which individuals and institutions could turn for advice, without fearing consequences to themselves or to others.”

The panel also urged that Canada define research misconduct as “the failure to apply, in a coherent and consistent manner, the values and principles essential to encouraging and achieving excellence in the search for knowledge. These values include honesty, fairness, trust, accountability, and openness.”

Forms of research misconduct should be divided into two categories, the panel argued. The first, which institutions “should investigate and must report” to the nation’s three granting councils, would include “fabrication; falsification, plagiarism; financial misconduct; and disregard for specific policies and regulations,” such as institutional policies on research involving human subjects, the welfare of lab animals and the handling of biohazards.

The second category would involve malfeasance that institutions are free to report, or not, to the councils and would include “misrepresentation of authorship and credit; deliberate impairment or interference with the progress of research; withholding of research information; misrepresentation of mismanagement of conflicts of interest; abuse of peer review; making the pursuit of unsubstantiated or malicious complaints or allegations; (and) inadequate mentoring, training, and supervision of students and other research personnel.” — Wayne Kondro, *CMAJ*

## A colourful history of medicine on the high seas

**M**ore than a thousand journals and diaries of medical officers in the United Kingdom's navy dating back to 1793 have been made available to the public, and their contents paint a colourful picture of life on the high seas in the 18th and 19th centuries. The National Archives, the UK government's official archive, has made the documents available as part of an extensive cataloguing project ([www.nationalarchives.gov.uk/about/medical-officer-journals.htm](http://www.nationalarchives.gov.uk/about/medical-officer-journals.htm)). The journals and diaries were written by Royal Navy surgeons and assistant surgeons in the years 1793–1880. They include tales of mishaps due to gun fights, lightning strikes, shark bites, mutinies and ship wrecks, among other incidents.

Some of the medical treatments offered on naval ships during these years were highly unusual, even for that era. One surgeon, for example, thought that the health of a man who barely escaped drowning would benefit from exposure to tobacco smoke. Bites from tarantulas and scorpions were doused in rum. Blood letting was also common, with one pneumonia patient being relieved of 3.5 pints of blood in three hours, which resulted in him “rapidly proceeding to a fatal termination.”

On the archives website, Bruno Pappalardo, a naval records specialist, said that the documents “are probably the most significant collection of records for the study of health and medicine at sea for the 19th century” ([www.nationalarchives.gov.uk/news/497.htm](http://www.nationalarchives.gov.uk/news/497.htm)).

The journals indicate that ship life was rather hectic. They detail many tales of drunken debauchery, listing

“grog” as the common element in many accidents. One entry states that “drunkenness nowadays in the Navy kills more men than the sword.”

When alcohol wasn't at the root of a medical emergency, the culprit was usually nature. The journals detail injuries due to shark attacks, high winds, ice storms and lightning. One ship was even attacked by a walrus.

Common illnesses on ships included scurvy, measles and venereal diseases. To study how gonorrhoea and syphilis was spread, one surgeon conducted an experiment which entailed multiple people having “connexion” with a woman with venereal disease.

The journals and diaries can be searched by disease or ailment, or by the names of patients, ships or medical officers. — Roger Collier, *CMAJ*

DOI:10.1503/cmaj.109-3714