The UAEM also urges universities to partner with new organizations that are changing the research landscape, such as the Institute of OneWorld Health and the Drugs for Neglected Diseases Initiative.

In Canada, UAEM members are pushing for revisions to the much-heralded Access to Medicines Regime (formerly known as the Jean Chrétien Pledge to Africa Act) that was supposed to facilitate the export of affordable medicines to the developing world, but has failed to produce any pills.

Richard Gold, director of the McGill Centre for Intellectual Property Policy, endorsed the consensus statement because "universities have a public role, not to make money but to create knowledge and make it accessible as broadly as possible." And while adding clauses to licensing agreements with biotechnology companies about access to research products in the developing world is "trickier" than ensuring fundamental research is publicly available, and might have to be done case by case, Gold says such conditions should not necessarily be a "deal breaker."

The Canadian Institutes for Health Research is currently working out its own policies to broaden access to publicly funded research, following the lead of the Wellcome Trust and Britain's Medical Research Council, which require researchers to provide open access to research results, a stance long-endorsed by *CMAJ*. — Ann Silversides, Toronto

DOI:10.1503/cmaj.070270

C. difficile inquest too narrow as "Quebec strain" goes international

You know, you don't go to the hospital to get more sick," says Danielle Raymond, recounting how her father, 71-year-old Laurier Raymond, was sent home suffering from severe diarrhea last autumn, several weeks after his admission to Honoré-Mercier hospital in St. Hyacinthe, Que. for cardiac problems. He was back in hospital just days later, weak and feverish, and died Dec. 7 — one of 16 patients at Honoré-Mercier who succumbed during an outbreak of *Clostridium difficile* that began at the hospital in May 2006.

Quebec Coroner Catherine Rudel-Tessier is now sifting through the causes and circumstances surrounding those deaths in St. Hyacinthe. Quebec Health Minister Philippe Couillard ordered the inquest last November after media reports of deviations from infection control guidelines — including the improper sterilization of bed pans.

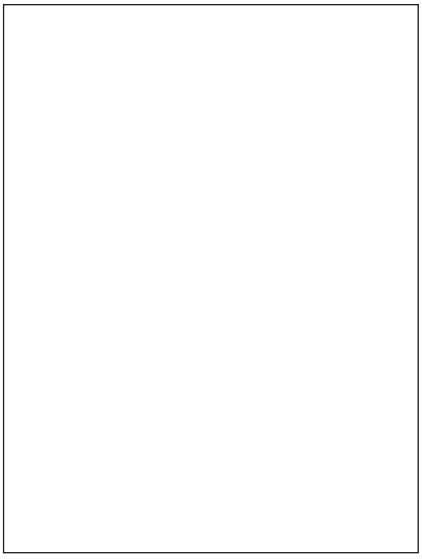
However, Couillard ignored a plea for a much broader public inquiry from Université de Sherbrooke's Dr. Jacques Pépin, one of the first infection control specialists to identify the outbreak (*CMAJ* 2004;171:466-72).

According to October 2006 data from l'Institut de la statistique du Québec, there have been more than 1900 deaths in Quebec directly attributed to *C. difficile* since 2002. By 2005, 30 Quebec hospitals were reporting infection rates of 15 per 10 000 patient days — 5 times greater than historic rates. In the first 2 years of the outbreak, the attributable death rate was as high as 16.7%, although now, as patients with *C. difficile* are diagnosed and treated more quickly, that's been reduced to about 6%.

Pépin argues that the focus on St. Hyacinthe is "far too narrow a mandate, when there are a vast number of unanswered questions on the sequence of events that led to this epidemic."

Infectious disease experts in the US and Europe are now looking to Quebec to provide clues on combating the spread of a super-bug now commonly known as the "Quebec strain," even though it likely first surfaced at the University of Pittsburgh in 2000 or 2001, according to Dr. Cliff McDonald, a leading expert in nosocomial diseases at the Centre for Disease Control in Atlanta, Georgia. The strain — officially NPA1/027 — produces levels of 2 kinds of toxins that are 16–23 times more potent than the common strain of *C. difficile* (*Annals of Surgery* 2007;245:267-72). It has been reported in at least 16 US jurisdictions and has been recognized as the cause of outbreaks in at least 5 countries in Europe, reports Ed Kuijper, a microbiologist at Leiden University in the Netherlands (*Clin Microbiol Infect* 2006;12 Suppl. 6:2-18). Kuijper says epidemiologists are alarmed by the potential stresses on European health care systems, should an epidemic as widespread as Quebec's ever hit that continent.

The cost would total about €3000-million annually, says Kuijper. "The main issue now is how to get countries in Europe alert for this strain," he adds. "We've learned from Canada that a multifaceted approach is really necessary for effective combat against *C. diff*."



Among those who speak internationally about the Quebec experience is Dr. Michael Libman, head of infection control at the McGill University Health Centre. He says epidemiologists may never know exactly why *C. difficile* spread to so many health care institutions in a single region, and beyond. But they have several theories. Among them: the age and condition of many hospitals in Quebec, in which 3 to 6 patients share a single bathroom. Libman adds there is little doubt housekeeping budget cuts and nursing shortages contributed to difficulties in controlling the spread of the new strain of *C. difficile*.

On the island of Montréal — which at the peak of the outbreak had infection rates of 23 per 10 000 patient days — the ambulance system may also have

played a role. Patients were taken to the nearest hospital with the shortest wait times and often transferred to the institution where their doctor had privileges. With those transfers, ambulances may have been unwittingly moving newly-incubated patients around. These factors are "how we became the kings of *C. diff*," says Libman.

Health Minister Couillard declared *Clostridium difficile*-associated diarrhea a reportable disease in August 2004 — so far Quebec and Manitoba are the only provinces to do so. Libman says his colleagues worldwide have been impressed by how quickly Quebec put in place a sophisticated surveillance system. The data is entered on a secure Web site by all hospitals with more than 1000 patient admissions per year and instantly transmitted to public health authorities. Comparative data are compiled quarterly and published online, available for anyone to see.

L'institut national du santé publique du Québec analyzed how hospitals with high incidence rates changed their performance over the first 2 years of *C. difficile* surveillance.

"It seems the public reporting provides [hospitals] with a tool of comparison with other hospitals ... to motivate them to do better," says Dr. Rodica Gilca, a medical epidemiologist at the institute. "We saw hospitals with the highest incidence rates improved the most."

The institute's latest data (December 2006) show *C. difficile* infection rates declined 36% between August 2005 and August 2006, with the greatest drop in Montréal and the surrounding regions. The data also show the bacterium has spread to more far-flung regions of the province: Rimouski had rates as high as 10.8 per 10 000 patient days in 2006, and some hospitals north of Montréal also reported high rates (22.1 per 10 000 patient days in Lanaudière.)

But in Montréal, where the epidemic appears to have begun, most teaching hospitals are once again nearing pre-epidemic levels. Libman says infection control specialists may never again be able to let down their guard — but there does appear to be an end in sight.

"At one point, I thought, this is such a bad bug — it's so nasty — we will never be able to get back to where we were," says Libman. "I thought this is 'the new normal.' But in fact, with a lot of quite intensive effort by a lot of people, we have gotten closer to the baseline."

Still, that's little comfort to Danielle Raymond and her family who are in mourning for their father. "Is it because it is mostly old people that catch *C. difficile* that they don't do much about it?" Raymond asks. — Loreen Pindera, Montréal, Que.

Loreen Pindera is a journalist with CBC Radio in Montréal.

DOI:10.1503/cmaj.070272

US grapples with covering the uninsured

With the 2008 presidential election in full flight, universal health care coverage has surged to the top of the political agenda in the United States, second only to the Iraq war.

Propelled by rising premiums and shrinking access to private insurance, the debate about how to cover 46 million uninsured Americans has picked up political traction as Democrats — who have always considered health care their "issue" — regain control of Congress and target the presidency.

Election promises to help the 46 million uninsured Americans.

To date, virtually all Democratic presidential candidates — including Senator Hillary Clinton, Senator Barack Obama and John Edwards — hope that universal health care is an issue they can ride all the way to the White House. But none are expected to advocate a single-payer government-controlled national health plan. Rather, all are opting for a combination of public and private solutions in measured, incremental steps.

Most Americans are insured through employer-based group plans in which they pay part of the premium. According to government figures, the average annual health insurance premiums in 2004 were $3705 for single coverage and $10 006 for family coverage.

Advocates for single-payer solutions, such as some trade union groups and the 14 000-member Physicians for a National Health Program, argue that private insurers are part of the problem not the solution. But even Senator Edward Kennedy, a long-time advocate for a national health program, concedes that some form of private–public plan using private insurers is the most "doable" in political terms and is pushing the mandatory program set up in his state last year as a model.

Under a proposed Massachusetts plan, everyone must buy health insurance, with the government subsidizing those who can't afford it. Employers not offering it to their employees are to be penalized through taxes.

In California, Governor Arnold Schwarzenegger has proposed similar mandatory universal health coverage: "If you can't afford it, the state will help you buy it. But you must be insured." His plan would also require hospitals and doctors to pay a percentage of earnings into a state fund subsidizing those who can't afford insurance, and insurers would be required to spend at least 85 cents out of each premium dollar on health care.

To date, more than a dozen states have introduced or are drafting similar public–private plans. Despite this movement, Dr. Oliver Fein, executive director of Physicians for a National Health Program, says "fiddling with the tax system and peddling skimpy private health plans will fail miserably. Like other plans that rely on private insurers ... the Massachusetts reform and the Schwarzenegger [plan] ... would leave millions without coverage and continue to squander $300 billion annually on private insurance marketing, bill collectors and other useless bureaucratic activities." — Milan Korcok, Ft. Lauderdale, Florida

DOI:10.1503/cmaj.070215