PUBLIC HEALTH WATCH

BY KATHIE LYNAS

1 in 12 hospital patients in Canada affected by antibiotic-resistant organisms. New Canadian research into hospital infections suggests that 1 in 12 hospitalized patients either carries or is infected by an antibiotic-resistant “superbug” at any one time.

The findings, published May 13, 2013, in the journal *Infection Control and Hospital Epidemiology*, are based on analysis of data collected in November 2010 from 176 acute-care hospitals in Canada.

During that period, more than 2890 adults in hospital carried or were infected by 1 of 3 superbugs, which are resistant to most antibiotics. These organisms included methicillin-resistant *Staphylococcus aureus*, vancomycin-resistant enterococci, and *Clostridium difficile*.

The researchers, led by a group at Toronto’s Sunnybrook Health Sciences Centre, also conducted a similar study in recent months, with the goal of assessing whether hospital-based infections are increasing or decreasing. The plan is to make these data available in the fall of 2013.

New research into new bird flu virus fuels growing global concerns about the risks. The new strain of H7N9 bird flu virus responsible for this spring’s outbreak in China spreads among mammals and may be getting closer to human-to-human transmission, says a group of scientists from Canada, the United States, China and Hong Kong.

In a study published May 23, 2013, in the journal *Science*, the researchers reported on analysis of the virus’ transmission among ferrets. They found evidence that the virus spreads well among the animals, including, at times, through airborne transmission—believed to be the way seasonal viruses are transmitted among people.

Their findings suggest the virus is more closely adapted to person-to-person spread than

other flu viruses, said the authors. This research study, among others, is adding to growing concern about the serious risks posed by the virus, despite the fact that it has been primarily limited to China at this stage.

On May 28, a study published in *The Lancet* reported that resistance to oseltamivir (Tamiflu) seems to develop quite easily in infections with the new H7N9 bird flu.

In comments made in Beijing on April 24, officials from the World Health Organization (WHO) called the new strain one of the “most lethal” flu viruses so far. The officials said the virus can jump more easily from birds to humans than the H5N1 avian flu strain that has killed 360 people worldwide since it emerged in 2003.

The new H7N9 virus first came to the attention of the global community in late March 2013, when it started infecting people living in China, mostly in the area around Shanghai.

As of May 29, 131 people in China had been infected and 37 people had died. Taiwan confirmed its first case of H7N9 human infection in late April.

Auditor General of Canada criticizes federal government and public health agency for weaknesses in diabetes programs. The Public Health Agency of Canada (PHAC) cannot demonstrate whether its program activities in diabetes prevention and management are having an impact on the well-being of people with the disease or at risk of developing it, according to the Auditor General of Canada.

In his 2013 annual report released April 30, Michael Ferguson chastised the agency for failing to demonstrate how Canadians were benefitting from the \$18 million the PHAC receives annually to implement a pan-Canadian diabetes strategy. Mr. Ferguson also took the agency to task for failing to accurately track the money spent on various diabetes-related activities.

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Another criticism was directed at the agency for not seeking advice from experts to help establish priorities, despite a commitment it made 7 years ago to set up an advisory committee of external diabetes experts.

The federal government as a whole came under the chief auditor's microscope in terms of diabetes-related spending, which totals about \$100 million a year. Programs and spending by the PHAC, Health Canada and the Canadian Institutes for Health Research are not effectively coordinated, the report said.

"If those things were linked, then the government could get much more value out of the money that it's spending on diabetes," said Mr. Ferguson.

Both the PHAC and the federal health minister, Leona Aglukkaq, said steps were being taken to implement the report's recommendations for increasing accountability in the diabetes area.

Study points to benefits of pharmacy-based surveillance in flu outbreaks. Community pharmacies might someday play an important role in the early detection and tracking of influenza and other disease outbreaks at the local level, a new study suggests.

Led by researchers from the PHAC, the retrospective analysis was published in the May 24, 2013, issue of the Center for Disease Control and Prevention's *Morbidity and Mortality Weekly Report*.

Examining the second wave of the 2009-2010 flu pandemic in Ontario, the authors looked at 2 sets of data: 1) weekly numbers of dispensed prescriptions of 2 antiviral drugs (oseltamivir and zanamivir) and 2) numbers of confirmed laboratory cases of H1N1 influenza. The prescription data were provided by Rx Canada, Inc. and covered approximately 75% of Ontario pharmacies.

The dispensed prescriptions tracked accurately with the lab-confirmed cases, and the study reported a significant relationship between the increase in case counts and antiviral prescriptions at the local health-authority level. It also noted that information from pharmacies can be collected and reported almost in real time.

The authors said laboratory-based surveillance will always be a cornerstone of

disease tracking, but pharmacies could be an effective early-detection mechanism.

"The potential for pharmacy-based surveillance to detect changes in community illness levels earlier than traditional laboratory-based surveillance methods is premised on the fact that the public will routinely seek over-the-counter medications to relieve or alleviate common symptoms of illness, and physicians often will prescribe medications before receiving laboratory confirmation," the researchers said.

Head of World Health Organization sounds the alarm over novel SARS-like virus originating in the Middle East. The novel coronavirus that began in the Middle East and is now spreading into Europe is the global health issue of greatest concern to the World Health Organization (WHO), the head of the UN health agency declared on May 27, 2013.

In her closing address to the 66th World Health Assembly in Geneva, WHO Director-General Margaret Chan said the new severe acute respiratory syndrome (SARS)-like virus is a "threat to the entire world." Many "alarm bells" are sounding over the virus, she said, including the fact that many questions remain about its origins and how people are getting infected.

"We understand too little about this virus when viewed against the magnitude of its potential threat. Any new disease that is emerging faster than our understanding is never under control," Dr. Chan told the 2000 delegates representing the WHO member states.

She urged all member countries to pull together their resources on an urgent basis to increase understanding of the coronavirus, which has come to be known as the Middle East respiratory syndrome coronavirus (MERS-CoV).

Dr. Chan's statement came just 1 day before the news that a patient from France had died of MERS. His illness was identified earlier, May 8, after he returned from a visit to the United Arab Emirates (UAE). His hospital roommate also tested positive for the illness.

In an update issued May 23, the WHO said that 22 of 44 confirmed cases of the virus had ended in death.

The WHO has reported laboratory-confirmed cases in UAE, Saudi Arabia, Qatar and Jordan. Cases have also been reported in the United Kingdom, France, Germany and Tunisia.