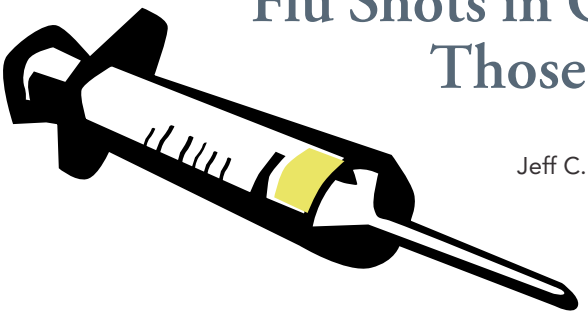

Flu Shots in Canada: Are They Getting to Those Who Need Them Most?

Jeff C. Kwong

The Issue

Despite increasing awareness about influenza viruses and how quickly they can spread and cause illness, influenza epidemics still place great burdens on society globally in terms of morbidity, mortality and lost productivity each year. Influenza infections are generally not severe for most healthy adults and older children, but for vulnerable populations such as the elderly, young children and those with chronic medical conditions, influenza can lead to serious complications and even death. Influenza vaccination is the cornerstone for the prevention and control of influenza, and studies have shown that the vaccinations are generally beneficial and cost-effective for most age groups. Over the past decade, Canadians have been rolling up their sleeves in large numbers in an effort to protect themselves.

In 1993, a national consensus conference on influenza set targets for vaccination rates at 70% for seniors aged 65 years or older, as well as for all people with chronic medical conditions. These targets were raised to 80% in 2005. Most provinces and territories have publicly funded programs that offer free influenza vaccinations targeting both vulnerable populations and those who have contact with vulnerable populations, including healthcare workers. In 2000, Ontario introduced the world's first large-scale Universal Influenza Immunization Program (UIIP) to provide free influenza vaccines for the entire provincial population aged six months or older, while other provinces continued their targeted programs.

To better understand influenza vaccination patterns, scientists at the Institute for Clinical Evaluative Sciences (ICES) reported on the latest trends in vaccination rates in Canada for the period 1996–2005, identified the characteristics of people likely to get a flu shot in Canada for 2005 and assessed the effects of Ontario's UIIP on influenza vaccination rates.

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The Study

Data from the 1996–1997 National Population Health Survey and the 2000–2001, 2003 and 2005 Canadian Community Health Surveys were used to assess influenza vaccination rates for the national household population aged 12 years and older. Survey respondents were asked, "Have you ever had a flu shot?" and, if so, "When were you last vaccinated?" Only people who had been vaccinated within the previous 12 months were considered to be actively immunized.

Key Findings

Trends in Influenza Vaccination Rates

The study found that across Canada influenza vaccination rates more than doubled between 1996–1997 and 2000–2001, from 15% to 27%, stabilized between 2000–2001 and 2003 and increased further between 2003 and 2005 to 34% (Figure 1). This pattern was observed

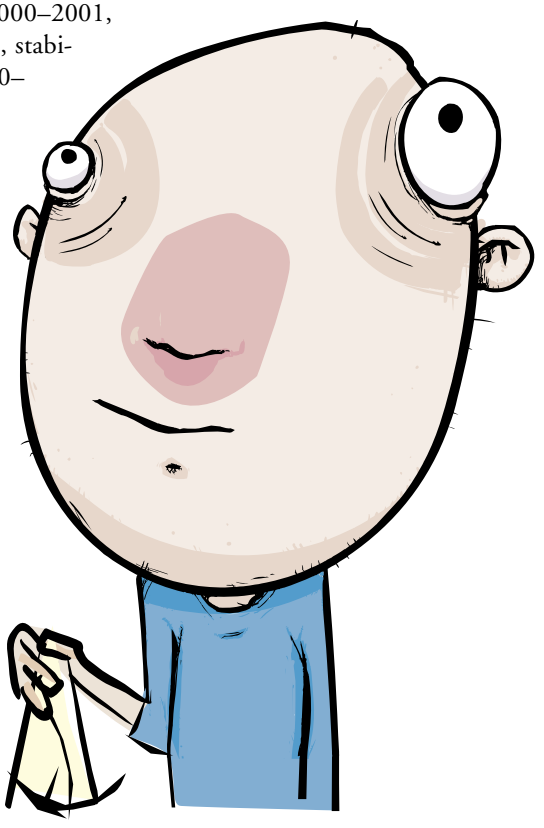
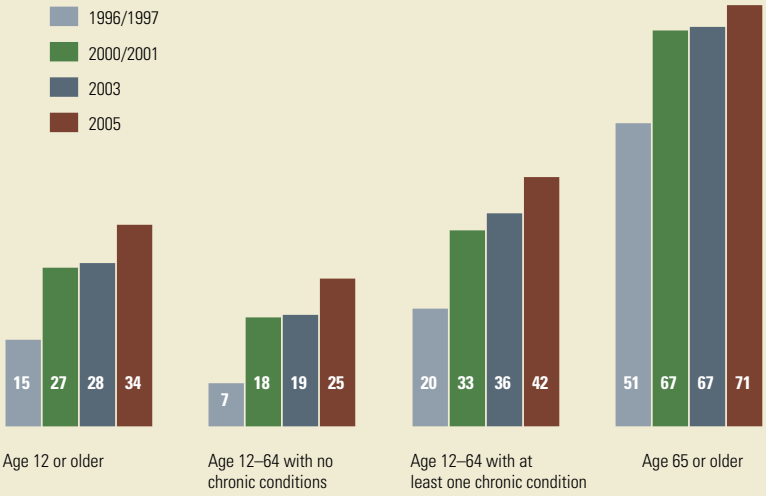
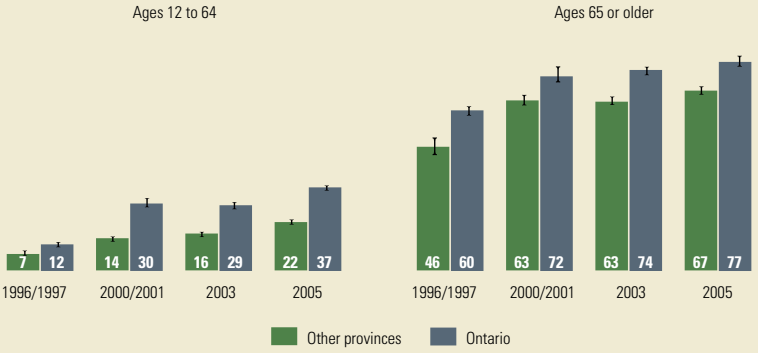


Figure 1. Percentage vaccinated against influenza, overall and by risk group, for the Canadian household population aged 12 years and older, for 1996–1997, 2000–2001, 2003 and 2005



Source: Adapted from Kwong et al. (2007).

Figure 2. Percentage vaccinated against influenza, by age group, in Ontario versus other provinces, for 1996–1997, 2000–2001, 2003 and 2005



Source: Adapted from Kwong et al. (2007).

among both high- and low-risk groups. By 2005, flu shot rates among the elderly reached the 1993 national target of 70%, but, despite the increase, this high-risk group still missed the 2005 target of 80%. The vaccination rate among people younger than age 65 years with chronic conditions was 42%, falling far short of both targets.

Characteristics of People Who Are Likely to Get a Flu Shot

In 2005, characteristics associated with an increased likelihood of getting a flu shot in Canada included the female gender, increasing age, the presence of a chronic condition, increasing household income, having a regular doctor and self-reported poor or fair health. Being a current smoker was associated with a lower likelihood of being vaccinated. Residing in any province other than Ontario was associated with decreased odds of being vaccinated compared with Ontario.

The Effect of Universal Vaccination in Ontario

Vaccination rates in Ontario were higher than those for other provinces in all four survey dates for all age groups (Figure 2). For those aged 12–64 years, vaccination rates increased 25 percentage points (from 12 to 37%) in Ontario compared with 15 percentage points (from 7 to 22%) in other provinces. For seniors, the difference between rates in Ontario and other provinces has narrowed slightly over time.

Many who are considered to be at high risk for serious complications from influenza infection, specifically younger people with chronic conditions and healthy seniors, are not being vaccinated.

Discussion

Influenza vaccination rates across Canada have more than doubled between 1996 and 2005. Vaccine providers and program planners should be commended for achieving such progress. However, many who are considered to be at high risk for serious complications from influenza infection, specifically younger people with chronic conditions and healthy seniors, are not being vaccinated. As a result, vaccination rates for these high-risk groups still fall short of national targets.

Ontarians are more likely to be vaccinated than residents of any other province, likely due at least partially to Ontario's universal vaccination program. Compared with other provinces, the introduction of UIIP in Ontario has been associated with greater vaccination rate increases among younger healthy people as well as those with chronic conditions who are in a high-risk group already covered by targeted programs. This suggests that universal vaccination may be a more effective strategy than selective targeting of people with chronic conditions in order

to reach this population. But some other provinces, such as Nova Scotia, have achieved high rates of vaccination among high-risk groups without a universal program (52% of those under 65 years with chronic conditions and 77% of seniors). Therefore, vaccination rates are not solely determined by the type of program used.

Although overall Canada is still among the best in the world for influenza vaccinations, additional strategies and efforts will likely be needed to achieve further increases in flu shot rates. Previous studies have found that interventions targeting clients (e.g., patient reminders), providers (e.g., assessment and feedback) and/or systems (e.g., expanding access) are effective for increasing vaccination coverage rates. The development of immunization registries would permit ongoing monitoring of trends in vaccination rates, facilitate the implementation of proven interventions for increasing coverage rates and inform successful policy making for vaccine programs at the population level. While individuals who receive the flu shot should be informed of the very small risk of potential adverse reactions (e.g., it is estimated that one to two people per million vaccinated will develop Guillain-Barré syndrome), the decision to be vaccinated should be based primarily on its potential benefits. A registry would therefore also support active surveillance for adverse outcomes as an essential component of any mass vaccination program. HQ

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