

# Statistics Canada

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### Releases

# Study: Trends in influenza vaccination in Canada

1996/1997 to 2005

Despite increases in influenza vaccination rates across the country, the rates for high-risk groups are falling short of national targets, a new study has found.

As of 2005, influenza vaccination rates were increasing across Canada after an apparent levelling off in 2003, according to an article published today in *Health Reports*.

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

Nationally, influenza vaccination rates nearly doubled from 1996/1997 to 2000/2001, increasing from 15% to 27%. After stabilizing between 2000/2001 and 2003, the rates increased to 34% in 2005.

Ontario, which since 2000 has provided free flu shots for residents aged six months and older, led the provinces, with vaccination rates rising from 18% to 42% between 1996/1997 and 2005.

Newfoundland and Labrador, with a 22% rate in 2005, ranked lowest among the provinces.

### Targets for high-risk groups largely unmet

For vulnerable populations such as the elderly, young children and those with chronic medical conditions, influenza can lead to serious complications and even death.

In 1993, a national consensus conference on influenza set target vaccination coverage rates of 70% for adults aged 65 or older and for all adults with chronic medical conditions. These targets were raised to 80% in 2005.

In 2005, vaccination rates among the elderly compared favourably with the 70% target set in 1993. Among individuals aged 65 or older, those with at least one chronic condition met that target. It was also met by individuals aged 75 or older with no chronic conditions, while 62% of those aged 65 to 74 without chronic conditions were vaccinated, just short of the target.

However, the new 80% target set in 2005 was reached only by seniors aged 75 or older with chronic conditions.

Vaccination rates were much lower among people younger than 65 with chronic conditions. Just 56% of

#### Note to readers

This release is based on an article that reports recent trends in influenza vaccination rates and provides data on predictors of vaccination in Canada for 2005. It also examines longer-term effects of Ontario's universal influenza immunization program on vaccine uptake.

Data came from the 1996/1997 National Population Health Survey and the Canadian Community Health Survey for the years 2000/2001, 2003 and 2005.

individuals aged 50 to 64 with chronic conditions were vaccinated in 2005, as were only about one-third of those younger than 50 with chronic conditions.

#### Effect of universal vaccination programs

Immediately after the introduction of the universal vaccination program, rates spiked for younger age groups in Ontario relative to other provinces. By contrast, the trend was flat among the elderly, who were previously covered in most provinces.

For 12- to 64-year-olds, the gap in vaccination rates between Ontario and other provinces observed in 2000/2001 was reduced slightly among those with chronic conditions, but not among those without. For older adults, the difference between Ontario and other provinces has narrowed slightly over time.

Nonetheless, vaccination rates are not solely determined by the type of program employed. Although Yukon has offered free flu shots to everyone aged 18 or older since 1999, its vaccination rates are generally the lowest among the territories. And, even without a universal vaccination program, Nova Scotia has matched Ontario's vaccination rates among high-risk groups.

In addition, Nunavut achieved the highest vaccination rates among the elderly, as well as among young, healthy individuals, even before the introduction of their universal vaccination program.

# Definitions, data sources and methods: survey numbers, including related surveys, 3226 and 3236.

The article, "Trends in influenza vaccination in Canada, 1996/1997 to 2005," is part of today's online release of *Health Reports*, Vol. 18, no. 4 (82-003-XWE, free), now available from the *Publications* module of our website.

For more information, or to enquire about the concepts, methods or data quality of this release,

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For more information about *Health Reports*, contact Christine Wright (613-951-1765; *christine.wright@statcan.ca*), Health Information and Research Division.

# Study: Birth outcomes by neighbourhood income and recent immigration in Toronto 1996 to 2001

Despite improvements over time in indicators such as infant mortality, adverse birth outcomes continue to be a concern in industrialized countries. This is especially true for preterm birth, which is the single most important cause of perinatal mortality.

Unlike socio-economic disadvantage, recent immigration is less well understood as a dimension of potential disparities in birth outcomes.

This article, published today in *Health Reports*, analyzes differences in birth outcomes in Toronto on the basis of neighbourhood income and recent immigration.

The study examined 143,030 singleton live births to mothers in Toronto between April 1996 and March 2001. It divided neighbourhoods into five income groups from the highest one-fifth to the lowest, based on the proportion of their population below Statistics Canada's low-income cutoff.

The study found that regardless of where they lived in the city, recent immigrants to Toronto had the same risk of having good birth outcomes. This was in sharp contrast to the situation for longer-term residents, for whom a lower neighbourhood income increased the risk of preterm birth and other negative birth outcomes.

Among long-term residents, those in neighbourhoods with the lowest income had a 34% greater risk of preterm birth, compared with mothers in neighbourhoods with the highest income. This trend did not apply to recent immigrants.

To some extent, the relatively good birth outcomes for recent immigrant mothers may be explained by the "healthy migrant effect." For instance, recent immigrant mothers were less susceptible to conditions that can cause preterm birth. They had a lower prevalence of maternal illnesses, such as genito-urinary infection and pregnancy-induced hypertension, compared with longer-term residents.

While the study found that births to recent immigrant mothers were less likely to be preterm, paradoxically, they were more likely to be low birthweight and full-term low birthweight.

But although low birthweight was more common among recent immigrants, as it was for long-term

residents of low-income neighbourhoods, the causes were likely different.

It is unlikely, for instance, that low birthweight among recent immigrant mothers would be due to higher cigarette and alcohol consumption, though these would be factors for longer-term residents. Rather, differences in body measurements and diet between recent immigrants and long-term residents were more likely causes.

Women born in southern and eastern Asia—which include countries that have provided the largest share of recent immigrants to Toronto—tend to be shorter and lighter and to have a lower caloric intake than longer-term residents. Such factors are known to contribute to smaller babies and, consequently, lower birthweight.

The study, "Birth outcomes by neighbourhood income and recent immigration in Toronto," is part of today's online release of *Health Reports,* Vol. 18, no. 4 (82-003-XWE, free), now available from the *Publications* module of our website.

For more information, or to enquire about the concepts, methods or data quality of this article, contact Marcelo Urquia (416-864-6060 ext. 3340; marcelo.urquia@utoronto.ca), University of Toronto.

For more information about *Health Reports*, contact Christine Wright (613-951-1765; *christine.wright@statcan.ca*), Health Information and Research Division.

## **Bioproducts Development Survey**

2006 (preliminary)

Preliminary data from the Bioproducts Development Survey are now available for 2006.

# Definitions, data sources and methods: survey number 5073.

To order data tables, or to enquire about concepts, methods or data quality of this release, contact Miles Rowat (613-951-1852; miles.rowat@statcan.ca), Science, Innovation and Electronic Information Division.

## New products

Health Reports, Vol. 18, no. 4 Catalogue number 82-003-XWE (free). All prices are in Canadian dollars and exclude sales tax. Additional shipping charges apply for delivery outside Canada.

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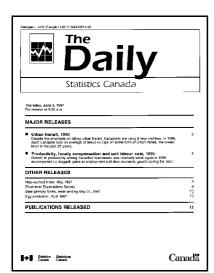
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