

HIGHLIGHTS

Medical and nonmedical exemptions to vaccination

Vaccine hesitancy is of increasing concern in Canada. In many jurisdictions, students must undergo vaccination for select vaccine-preventable diseases or provide a statement of exemption to attend school. Are rates of exemptions rising in Canada, as seen in the United States? In this cross-sectional study, data on exemptions (medical and nonmedical) for school years 2002/3 to 2012/13 were obtained from the Immunization Records Information System in Ontario. For both 7- and 17-year-old students, religious or conscientious objections for measles-containing vaccines significantly increased over the study period (Figure 1). In contrast, medical exemptions declined in both age groups. Overall, the percentage of students with any exemption classification was low throughout the study period (< 2.5%). However, there was considerable geographic variability in nonmedical exemption rates, a trend not seen for medical exemptions. Because of this marked geographic variation, the

authors suggest that there is a potential role for targeted interventions to address vaccine hesitancy. *CMAJ Open* 2015; 3:E317-23.

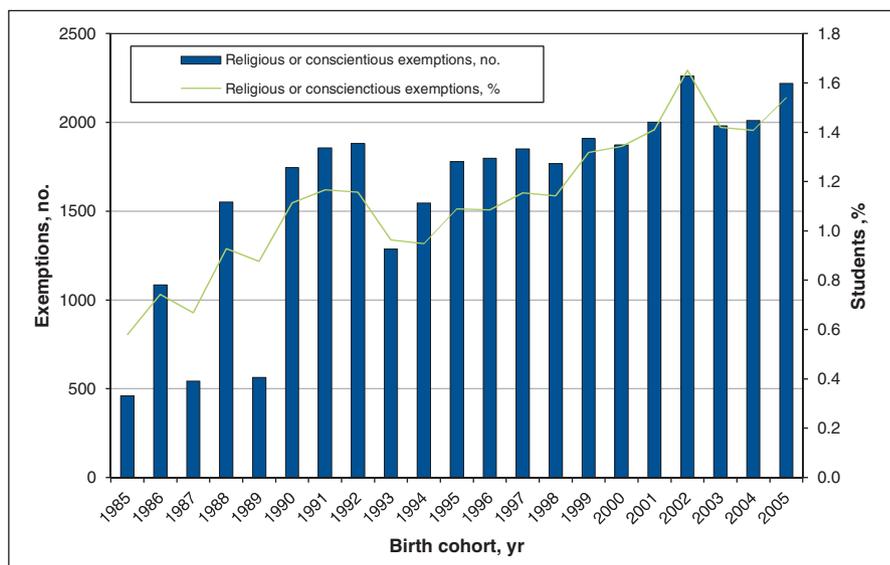


Figure 1: Temporal trends in immunization exemptions to measles-containing vaccine for religious or conscientious belief among Ontario students by year of birth.

Who receives long-term opioid therapy for noncancer pain?

Although we know that opioids are increasingly used to manage chronic noncancer pain, the characteristics of patients receiving this therapy are not well understood. Adult patients ($n = 260$) presenting to a pain management centre in a tertiary care hospital in Ontario were invited to participate in a survey. Of the 170 respondents (65.4% response rate), 149 (87.6%) were receiving long-term opioid therapy and were included in the analysis. The median morphine equivalent dose in this group was 180 mg daily (interquartile range 60–501). The most common condition for which opioids were prescribed was low-back pain, followed by chronic neck pain and fibromyalgia (Table 1). Over two-thirds of those on long-term opioid therapy were receiving disability benefits, with only 10 of those less than 65 years of age working full-time and 14 part-time. Although most experienced at least modest pain relief (74.1%) and functional improvement (67.6%) with use of opioids, nearly half (46.5%) reported troublesome adverse effects. In addition, the authors found that many of the patients were unclear about what opioids they were prescribed, suggesting that there is a role for greater patient education about these drugs. *CMAJ Open* 2015;3:E324-330.

Table 1: Participant characteristics ($n = 145$)*

Characteristic	No. (%) of participant†
Presenting clinical condition‡	
Chronic low back pain	94 (64.8)
Chronic neck pain	46 (31.7)
Fibromyalgia	30 (20.7)
Chronic headaches	26 (17.9)
Rheumatoid arthritis	21 (14.5)
Diabetic neuropathy	12 (8.3)
Chronic whiplash	7 (4.8)
Currently receiving disability (wage replacement) benefits	
Yes	99 (68.3)
No	46 (31.7)

*Four patients provided incomplete information for 1 or more of the table items, and we restricted our analyses to those patients ($n = 145$) who provided complete information.

†Unless otherwise specified.

‡The total is greater than 145 because patients were allowed to endorse more than 1 response option.