

# Community pharmacists' knowledge, beliefs, and attitudes towards immunization in Quebec

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## Introduction

Many immunization-preventable diseases still cause major morbidity and mortality in Canada.

Immunization rates in Québec are suboptimal, especially among adults. In order to widen vaccines' availability and facilitate their uptake, several associations (IDSA, CPhA) and government agencies (CDC, INSPQ) recommend that vaccines be administered by pharmacists.

## Objectives

To describe the pharmacists' knowledge, beliefs, and attitudes towards immunization and determine what barriers to pharmacist-led immunization are perceived by Québec's pharmacists.

## Methods

This study was a descriptive survey of pharmacists working in a community setting in Quebec. The questionnaire was based on questions from other surveys. It was posted online and its answers were collected using the website [www.surveymonkey.com](http://www.surveymonkey.com). The answers could not be linked to a particular pharmacist in order to preserve confidentiality.

Community pharmacies were randomly chosen among a list of Quebec's pharmacies, stratified by chains and banners.

The first pharmacist to answer the phone call was introduced to the study and invited to answer the online questionnaire. Only one pharmacist could be selected in each workplace. Community pharmacists were contacted by phone from January 17 to 25, 2013.

The pharmacists that agreed to participate were given a web link to the questionnaire via e-mail or phone. An e-mail reminder was sent 5 to 7 days after the first contact. The survey could be filled until January 30, 2013.

The only exclusion criterion was lack of understanding French, as the questionnaire was written in French only.

We contacted 201 community pharmacists during the study period, and 115 answered the survey, generating a 57 % response rate.

No statistical analysis was used, as this was a descriptive study.

## Results

### Knowledge and opinions on statements concerning immunization

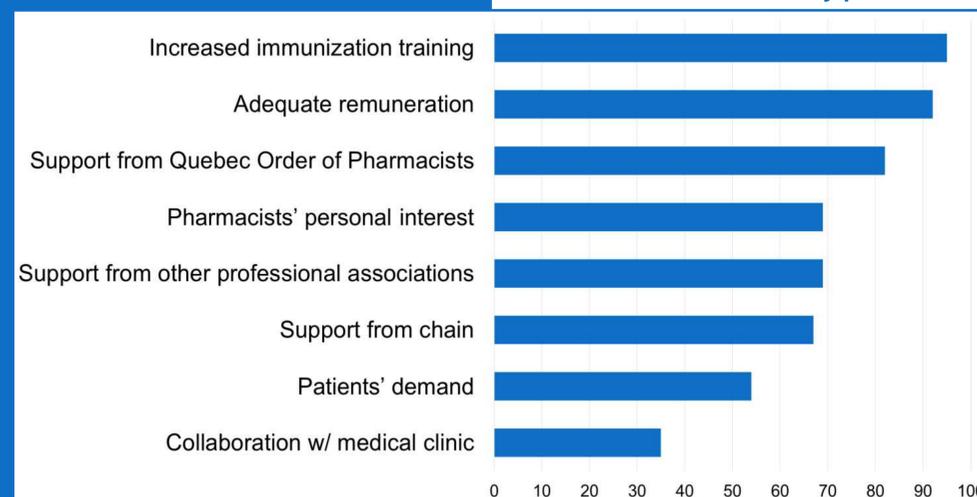
Statement	True n (%)	False n (%)
Vaccines do not cause adverse events	0 (0)	114 (100)
Vaccination is not mandatory in Quebec	73 (64)	41 (36)
We need to keep on immunizing against infectious diseases that have almost disappeared (diphtheria, mumps)	101 (89)	13 (11)
Simultaneous administration of several vaccines can overload or exhaust the immune system	6 (5)	108 (95)
The MMR vaccine can sometimes cause autism	3 (3)	111 (97)
The injectable influenza vaccine can cause the flu	6 (5)	108 (95)
Vaccines have more benefits than adverse effects	109 (96)	5 (4)

### Assessment of barriers to pharmacist-led immunization

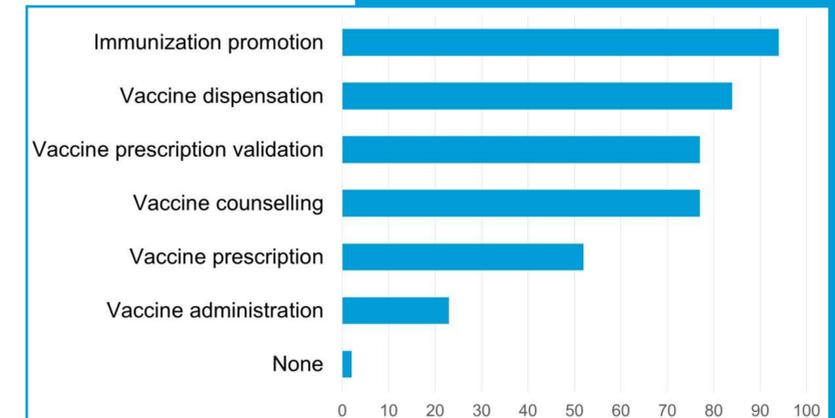
Disagree	n (%)	Neither agree or disagree	Agree	n (%)
Doubts over vaccines'	109 (96)	Insufficient profitability	Lack of training	105 (92)
Fear of vaccines' adverse events	76 (67)	Already offered close to practice setting	Lack of time	103 (90)
Uneasy with needles	74 (64)	Lack of storage space	Already offered close	77 (67)
Uneasy with blood or other bodily fluids	72 (63)	Professional accountability	Lack of space	57 (50)
Uneasy with the patient's physical contact	65 (57)	Allergic reactions		
Conflicts with other	64 (56)			
Insufficient demand	59 (52)			

**52 % answered that pharmacists should be able to prescribe and administer vaccines, pending a legislative change**

### Factors that would favour the implementation of immunization by pharmacists



### Immunization-related activities pharmacists wanted to get involved in



## Discussion

- The American Pharmacists Association identified three roles pharmacists should assume regarding immunization : advocating, facilitating, and immunizing.
- Our study shows that pharmacists are ready to get involved in vaccine counselling and promotion. These results are similar to those of the INSPQ survey (Dubé et al., 2012).
- When offered, pharmacy-based immunization by a nurse was limited to a short period (median 8 hours/week).
- Pharmacists were more interested in administering travel (92 %), flu (88 %), and pandemic (85 %) vaccines than regularly scheduled vaccines for adults (65 %) or children (18 %).
- Pharmacists identified several solutions to widen pharmacist-led vaccine counselling and immunization. Adequate remuneration and training were the most common answers.
- This study was a small scale survey.
- The small number of respondents indicates that it may be difficult to extrapolate the results to all of Quebec's pharmacists.
- However, a wide array of pharmacists from different settings, regions, and age groups were surveyed.

## Conclusion

- This study brings new information on the knowledge and attitudes of community pharmacists toward immunization.
- Obstacles that should be addressed before widening the pharmacist's role in immunization were identified.
- These findings should encourage a renewed discussion in the role of pharmacists as immunization agents in Canadian provinces where pharmacists do not have the authority to administer vaccines.

Reference : Sauvageau C, Dubé E, Bradet R, Mondor M, Moisan J. Les services de vaccination dans les pharmacies du Québec. Québec: Institut national de santé publique du Québec, 2011.

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