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Expected challenges of implementing universal pertussis vaccination during pregnancy in Québec: a cross-sectional survey

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Plan



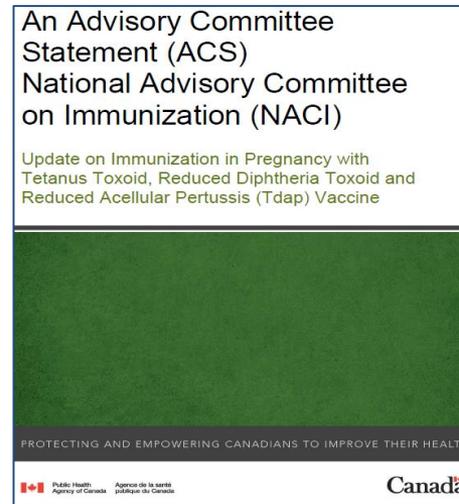
- Context
- Research project
- Next steps

Context

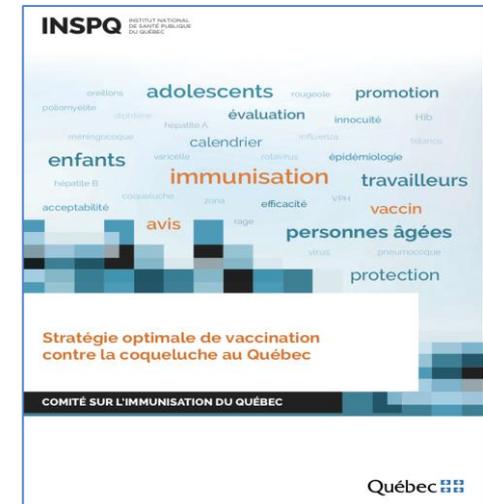
2016-2017

Research project

March 2018



<https://www.canada.ca/en/public-health/services/publications/healthy-living/update-immunization-pregnancy-tdap-vaccine.html>



https://www.inspq.qc.ca/sites/default/files/publication/s/2369_strategie_vaccination_coqueluche_quebec.pdf

May 2018

Protocole d'immunisation du Québec (PIQ)

Introduction

Infolettre

Sections

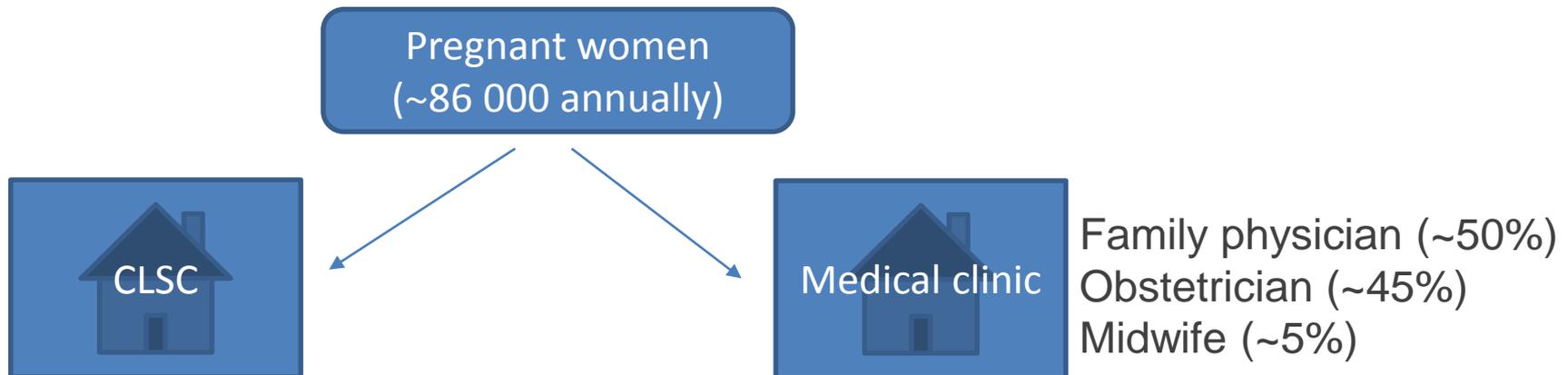
Introduction



- Vaccine coverage often suboptimal in countries recommending maternal vaccination with Tdap (e.g. USA)
- Fair acceptability of Tdap for pregnant women
- Organizational factors are important (e.g. make immunization part of routine prenatal care)

Objectives

1. Better describe the model of prenatal care in Quebec
2. Determine to what extent maternal vaccination against pertussis could be integrated into this model



Methods

- **Participants:**

- Nurses or managers involved in prenatal care
- One respondent for each of 158 CLSC (98.1%) from 16 health regions

- **Measures:**

- Online survey tool (FluidSurveys™)
- 20 questions (15-30 minutes)
 - Prenatal care offered by the CLSC
 - Antenatal ultrasonography and blood tests
 - Integration of vaccination services into existing model

- **Analyses:**

- Descriptive statistics
- Comparisons according to urban or rural character of the CLSC service area

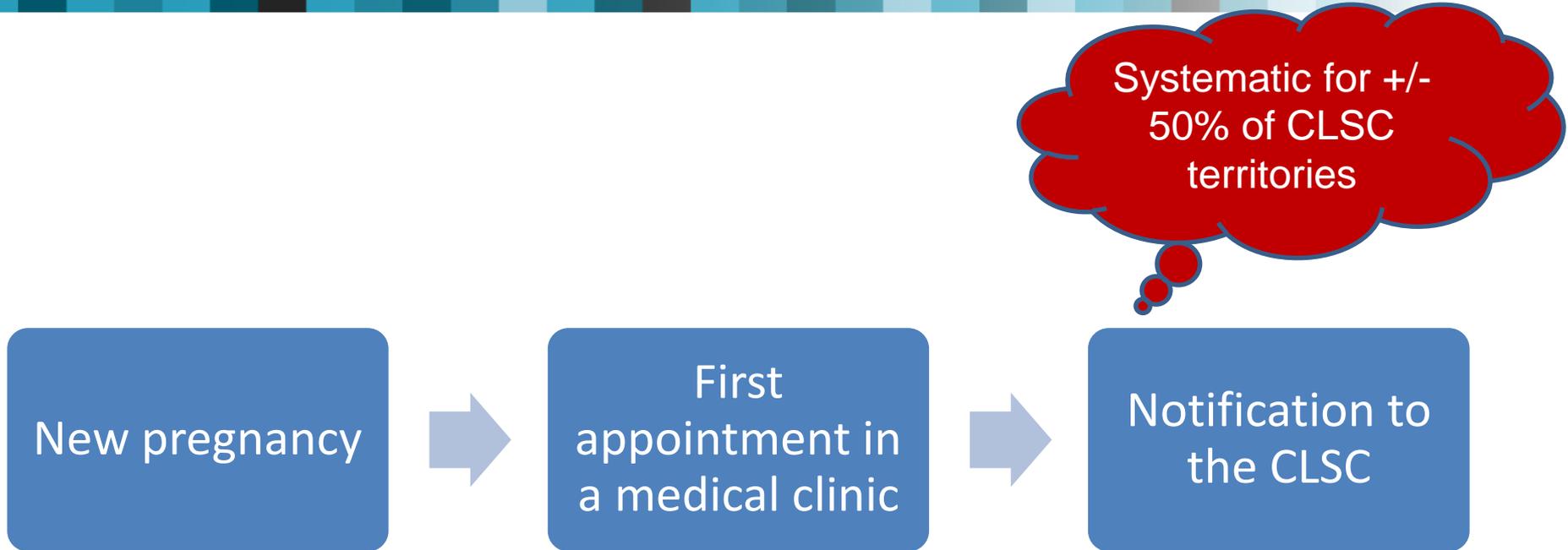
Results

Response rate

Territory	Total number of CLSC	Participating CLSC	Response rate
Province de Québec	158	127	80%

Response rate for each health region varied from 63% to 100% (at least 4 CLSC from every health region)

Results



Results

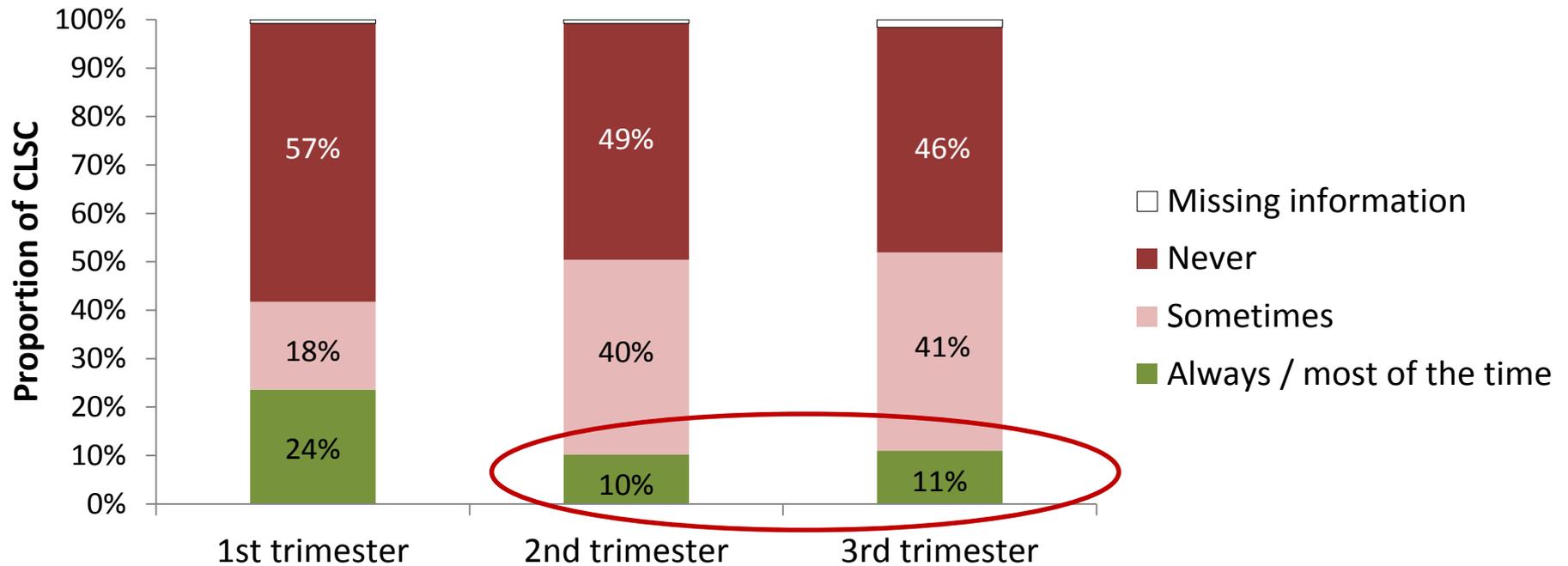
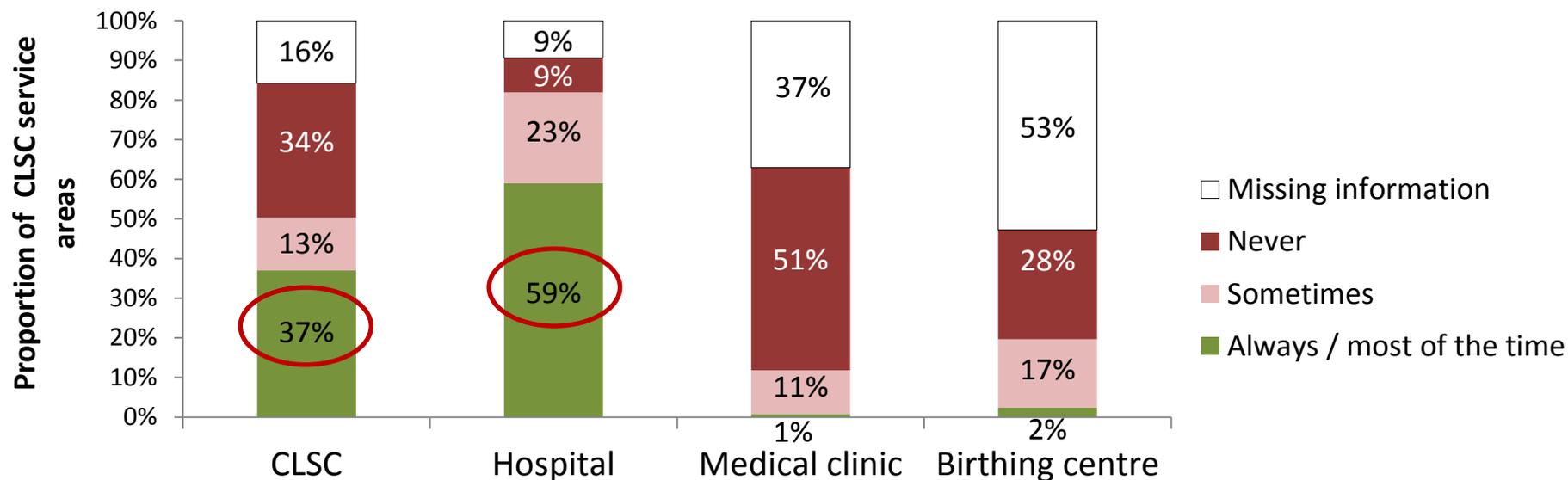


Figure. Proportion of CLSC offering on-site visits with a nurse, by trimester, Québec

Always / most of the time: for the majority of pregnant women from their service area
 Sometimes: for a minority of pregnant women from their service area
 Never: For none or almost none of pregnant women from their service area
 n = 127 for each trimester

Results

- Second trimester blood tests (weeks 24-28):



- Second trimester prenatal ultrasonography (weeks 18-22):

- In hospitals for the vast majority of service areas (93%)

Results

Integration of vaccination services:

- Availability of vaccines in medical clinics offering prenatal care
 - Do not know: 42% of service areas
 - Majority of clinics: 18% of service areas
 - Minority or none of the clinics: 40% of service areas



More frequent in rural areas

Results

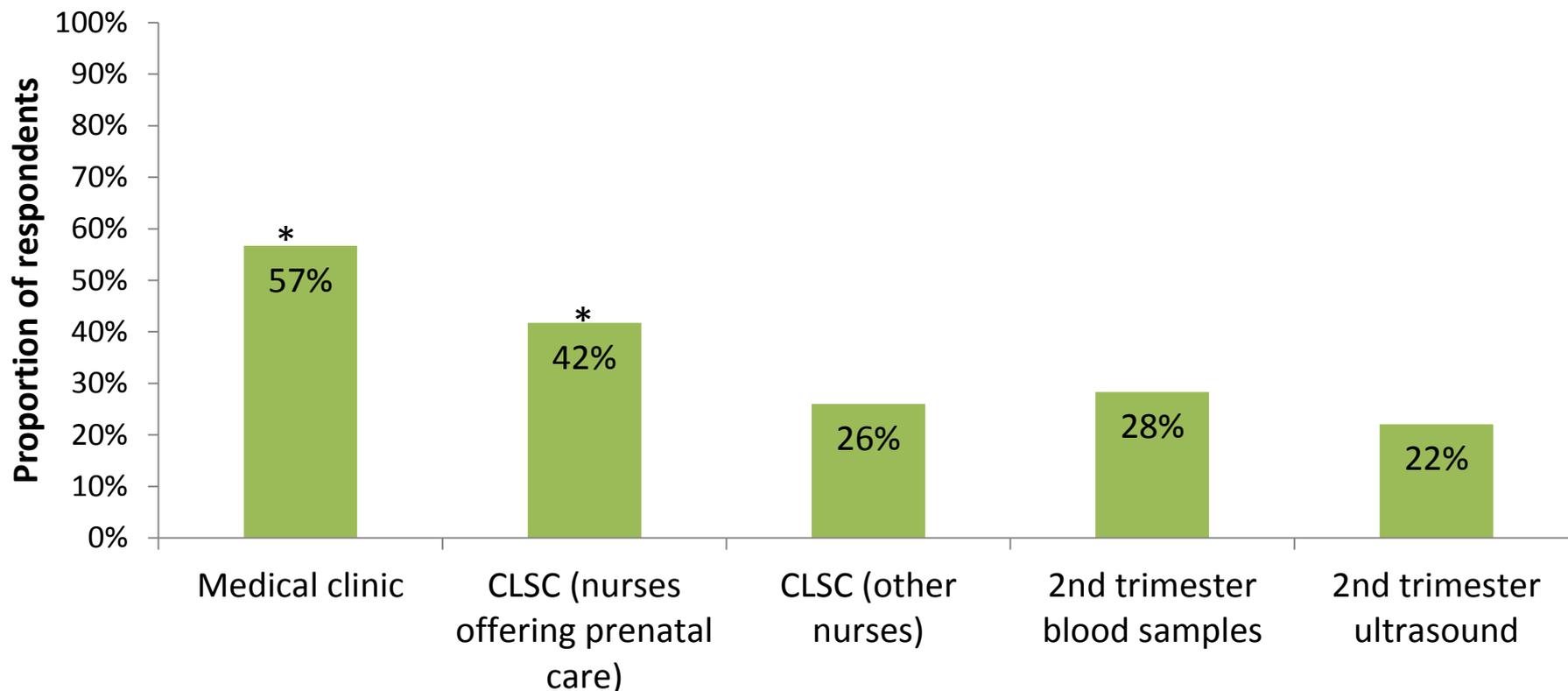


Figure. Respondents' **preferred options** for tetanus, diphtheria, pertussis (Tdap) vaccine administration if universal maternal Tdap vaccination were to be implemented

Proportions correspond to the proportion of respondents who indicated that a given option would be chosen "always" or "often". Respondents could select more than one option.

* Results significantly different between urban and rural CLSC ($p < 0.05$).

Interpretation

- *Centres locaux de services communautaires (CLSC):*
 - Only ~10% would be able to integrate vaccination into the existing model of prenatal care without scheduling an additional visit
- **Medical clinics offering prenatal care:**
 - A high proportion (> 40%) do not stock vaccines

Given the current prenatal care visit structure, it may be necessary to schedule additional appointments

May result in suboptimal vaccine coverage among pregnant women and lower cost-effectiveness of the program

Interpretation

Medical clinics offering prenatal care in Québec:

- Often do not stock vaccines
- Are not receiving any financial compensation for administering vaccines (*règlement sur les frais accessoires*)

Other options...

- Oral glucose challenge test (weeks 26-28)?
- Pharmacists?

Interpretation



Limits

- Province of Québec only (but other Canadian provinces may face similar challenges)
- Respondents were frequently not able to answer questions about services outside the CLSC
- Only one response from each CLSC service area

Conclusion

- Implementation of a recommendation to offer universal maternal Tdap vaccination may be challenging in Quebec
 - No unique model possible
 - May be necessary to schedule additional appointments for many pregnant women
- Important to evaluate province-based implementation models to develop efficient ways to provide maternal vaccination across Canada

Implementation of maternal Tdap vaccination in Québec: update

- Communications with professionals involved in prenatal care (e.g. medical clinics)
- Development of information tools for health care professionals and pregnant women
- Implementation of the program in each health region
- Monitoring of vaccination coverage
- Planning of an implementation research project



<http://publications.msss.gouv.qc.ca/msss/fichiers/2018/18-278-03W.pdf>

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