

# What works? Getting the General Population To Go Online in a Mixed Mode Local Health Survey

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Web surveys for the general population: How, why and when? Workshop

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University of Essex, Colchester

Agence de la santé  
et des services sociaux  
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Faire le point sur l'état  
de santé des Montréalais

# Montreal Public Health Surveillance

Legal mandate – Public Health Act

Surveillance of health status and risk factors  
for 12 Local Health Units (LHU)

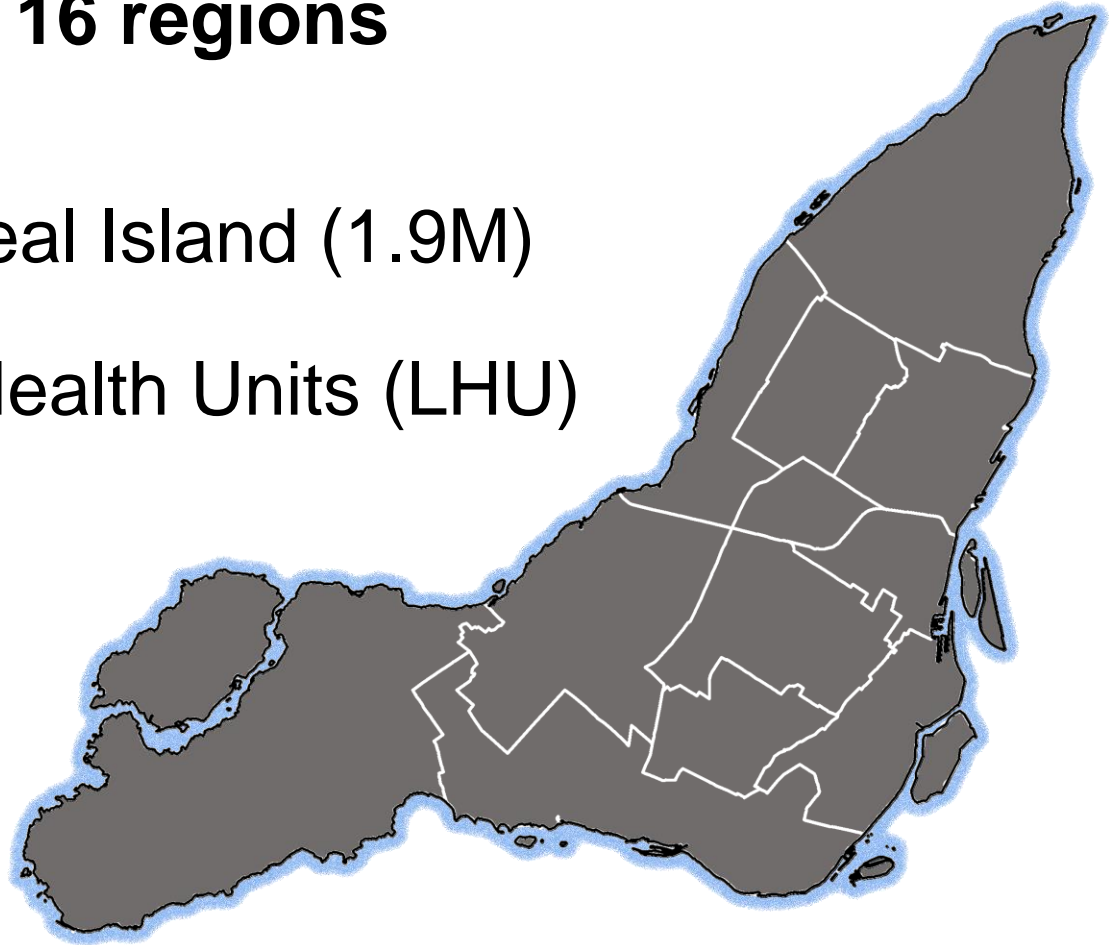
Surveys to complement other  
administrative data

# Quebec Health System structure

**Provincial level – 16 regions**

**Regional – Montreal Island (1.9M)**

**Local - 12 Local Health Units (LHU)**



# Survey challenges

Improve or maintain response rates

Ensure sample representativity  
at the local level

Minimize measurement biases

Reduce costs

# Our first steps ...

Mixed mode pilot study  
with Statistics Quebec in 2011

Establish feasibility  
Estimate fieldwork effort  
Evaluate data quality and comparability

# TOPO 2012

## Study population

Persons aged 15 years old and older, living in Montreal in private households and registered with the **Quebec Health Insurance Plan**

## Objectives

Guide local public health planning + baseline for surveillance

Produce reliable and precise ( $CV \leq 15\%$ ) estimates at the local level (12 LHU) for health indicators of a minimum prevalence of 5%

**900 respondents per local health units**

# TOPO 2012

Stratified probability sample drawn from the the Quebec Health Insurance Registry (95% population coverage)

168 strata : 2 sex – 7 age groups– 12 local health units

Full name, age, sex, complete postal address, day and night telephone numbers (70%), language preference, name of address holder, if different, linkage number

# Questionnaire

Topic: Chronic diseases + determinants

Length: max. 109 questions – 23 minutes

Validated questions (ESCC, EQSP, DSP)

- French and English / CAWI and CATI
- Adapted for a mixed mode survey
  - Answer choice were read in CATI when listed in CAWI
  - Use same question sequence (i.e. no grid)



# Inciting participation

- **Branding exercise**
  - Name: TOPO
  - Logos and key art for website, letterhead, bulletins, etc.
- **Media relations** – press kit – press release – interviews
- **Social media strategy**
  - YouTube videos
  - Facebook campaign
  - Google AdWords
  - Montreal Public Health Facebook and Twitter accounts
- **Comprehensive website : [topomtl.ca](http://topomtl.ca)**
- **Bulletins** – six issues during fieldwork

# Fieldwork



Français

### Checking in on Montrealers' health

Data collection for TOPO survey ended on November 14

Over 11,000 Montrealers from all parts of the island answered the questionnaire, either on the Web or over the telephone. Thanks to your contribution, TOPO is the largest health survey even conducted in Montréal.

Your participation will benefit all Montrealers, and we thank you very much.

Over the next few months, we will process and analyze the information collected. We will release the initial results in 2013.

Keep an eye on the Director of Public Health's Facebook page and Twitter feed for

### What's new with TOPO

- News Letter n°1 (French only) (406 Ko)
- News Letter n°2 (French only) (227 Ko)
- News Letter n°3 (French only) (107 Ko)
- News Letter n°4 (French only) (243 Ko)
- News Letter n°5 (French only) (399 Ko)
- News Letter n°6 (French only) (366 Ko)



# topomtl.ca

# Sampling

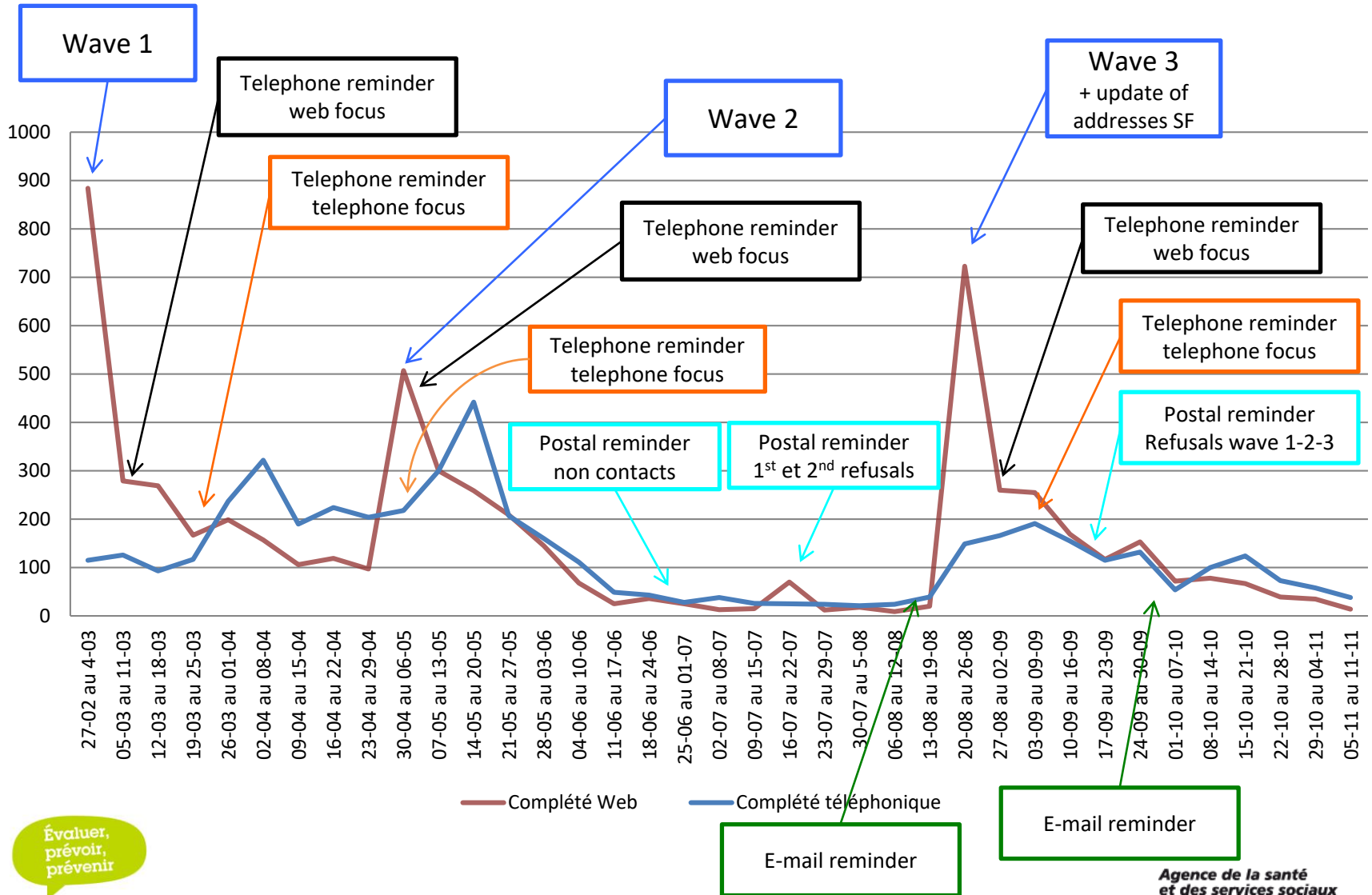
Wave	Sample size	Dates	Total duration
1	11 927	Feb 24th 2012 – Nov 14th 2012	265 days
2	6 972	May 1st 2012 – Nov 14th 2012	198 days
3	9 641	Aug 19th 2012 – Nov 14th 2012	88 days

# Invitation letter

- Personalized
- Survey purpose & content
- Confidentiality
- Unique access code
- Website address
- Tel. # of survey company
- Advance letter to parents of 15-16-17 y.o.



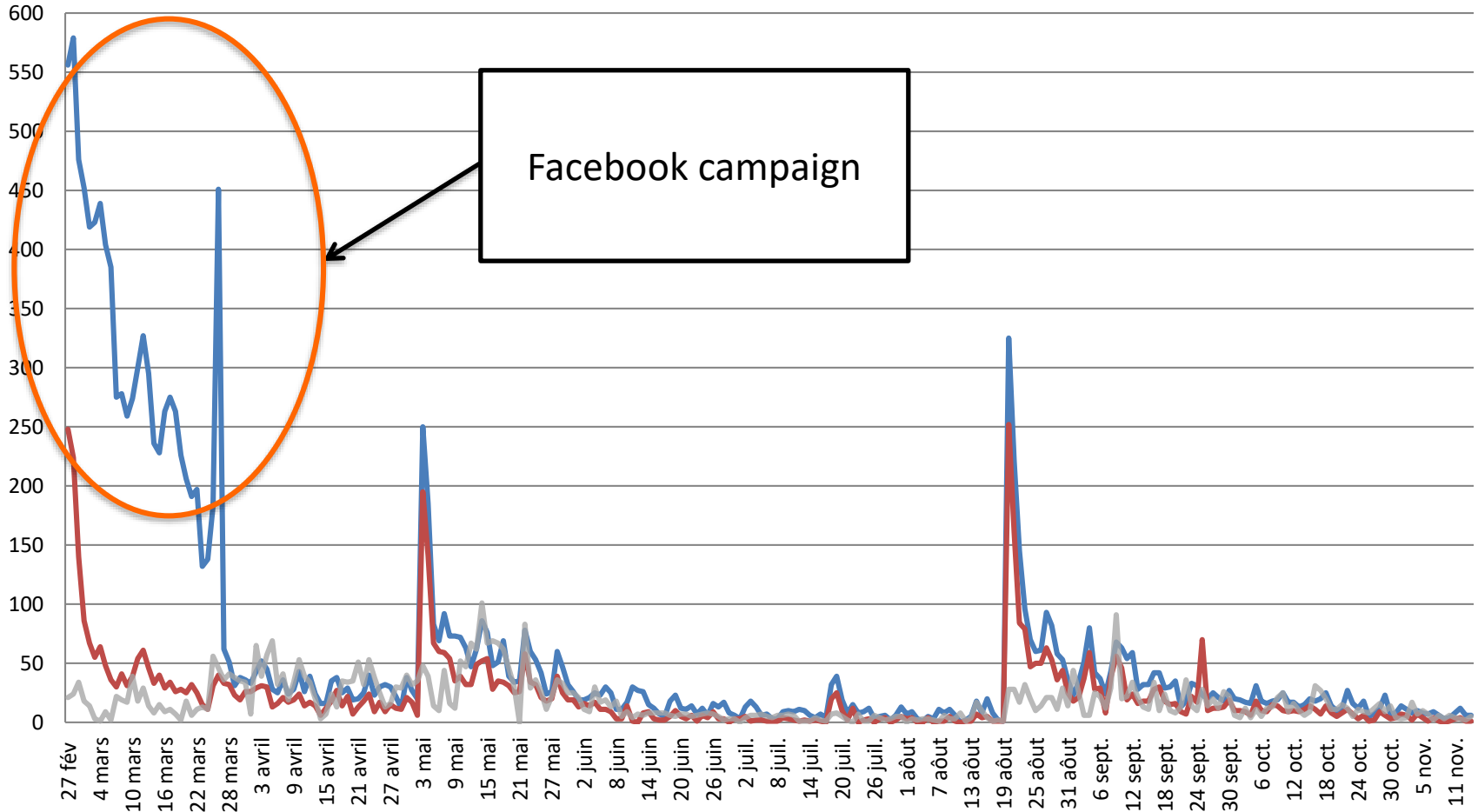
# Weekly count by survey mode, Topo 2012



# Cummulative impact of invitation letters + reminders

Wave and week	% completes ( <u>web</u> ) / nb invitations	% completes ( <u>total</u> ) / nb invitations
<b>Wave 1 – february 2012</b>		
Week 1 – letter	7,4 % (884/11 927)	8,4 % (999/11 927)
Week 2 – reminder web	9,7 % (1 163/11 927)	11,8 % (1 404/11 927)
Week 3 – reminder tel.	<b>12,0 % (1 432/11 927)</b>	<b>14,8 % (1 766/11 927)</b>
<b>Wave 2 – may 2012</b>		
Week 1 – letter	8,1 % (562/6 972)	9,0% (626/6 972)
Week 2 – reminder web	11,8 % (818/6972)	18,0% (1 254/6 972)
Week 3 – reminder tel.	<b>15,5 % (1 074/6 972)</b>	<b>26,0% (1 818/6 972)</b>
<b>Wave 3 – august 2012</b>		
Week 1 – letter	7,4 % (709/9 641)	8,8 % (851/9 641)
Week 2 – reminder web	10,0 % (963/9 641)	12,9 % (1 250/9 641)
Week 3 – reminder tel.	<b>12,6 % (1 210/9 641)</b>	<b>17,4 % (1 682/9 641)</b>

# Visits on topomtl.ca + completes by mode, Google analytics, Topo 2012



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— Visiteurs uniques - Google Analytics

— Complété Web

— Complété téléphonique

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# Results

# Final results

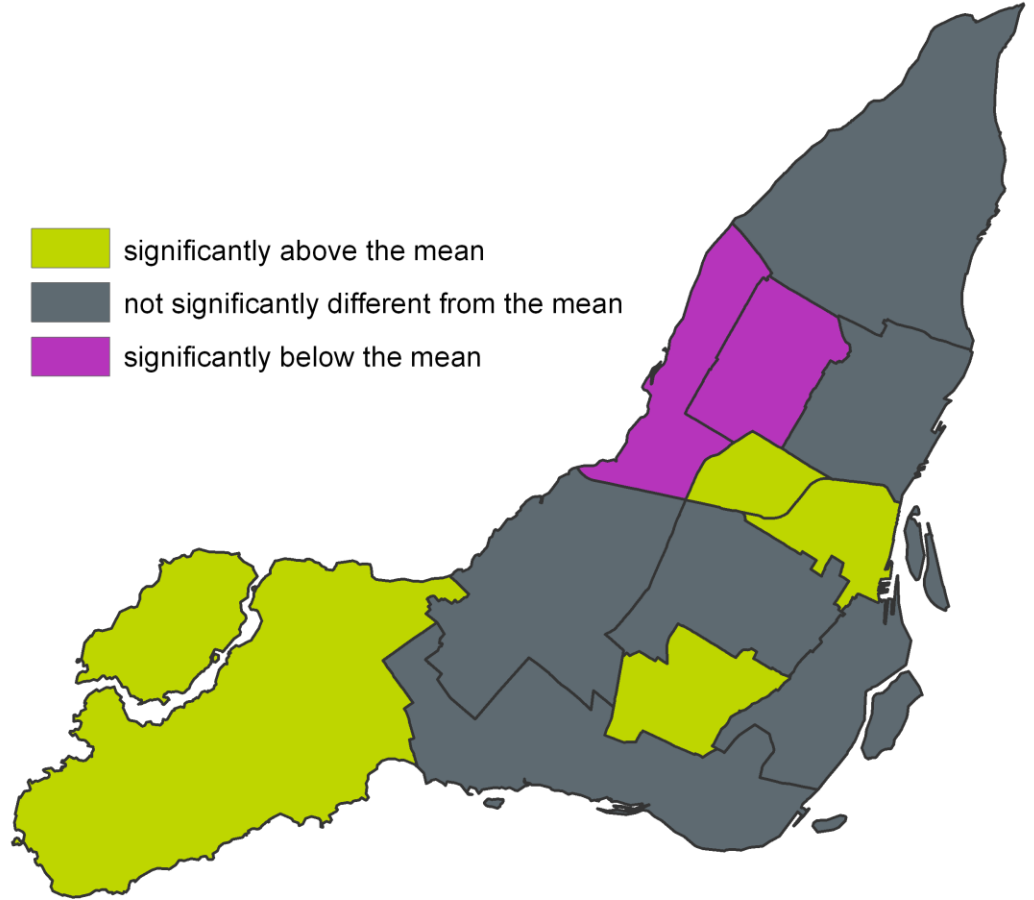
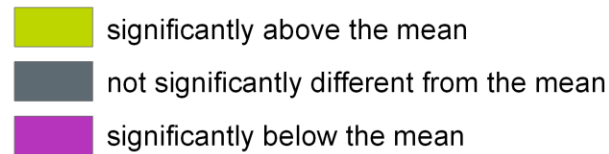
	Number	Pourcentage (%)
Total sample	28 940	-
Non admissibles	1 101	9,2 %
<b>Completés</b>	<b>10 865</b>	
<i>Telephone</i>	4 787	<b>44,0 %</b>
<i>Web</i>	6 078	<b>56,0 %</b>
Refusals	5 114	17,7 %
Non contacts	9 259	32,0 %
Inability to participate	433	1,5 %
Non resolved (telephone)	2 098	7,3 %
Response rate	-	<b>41,4 %</b>

# Response rates by LHU

Local health units (LHU)	Response rate
Ouest-de-l'Île	42,43%
Dorval-Lachine-LaSalle	40,57%
Sud-Ouest - Verdun	40,18%
Pointe de l'Île	43,49%
Lucille-Teasdale	44,46%
St-Léonard et St-Michel	41,52%
de la Montagne	<b>36,43%</b>
Cavendish	37,28%
Jeanne-Mance	41,29%
Bordeaux-Cartierville – St-Laurent	40,71%
Coeur-de-l'Île	<b>47,22%</b>
Ahuntsic et Mtl-Nord	42,11%

# Web participation by LHU

**Global: 56%**  
**Range: 48% to 63%**



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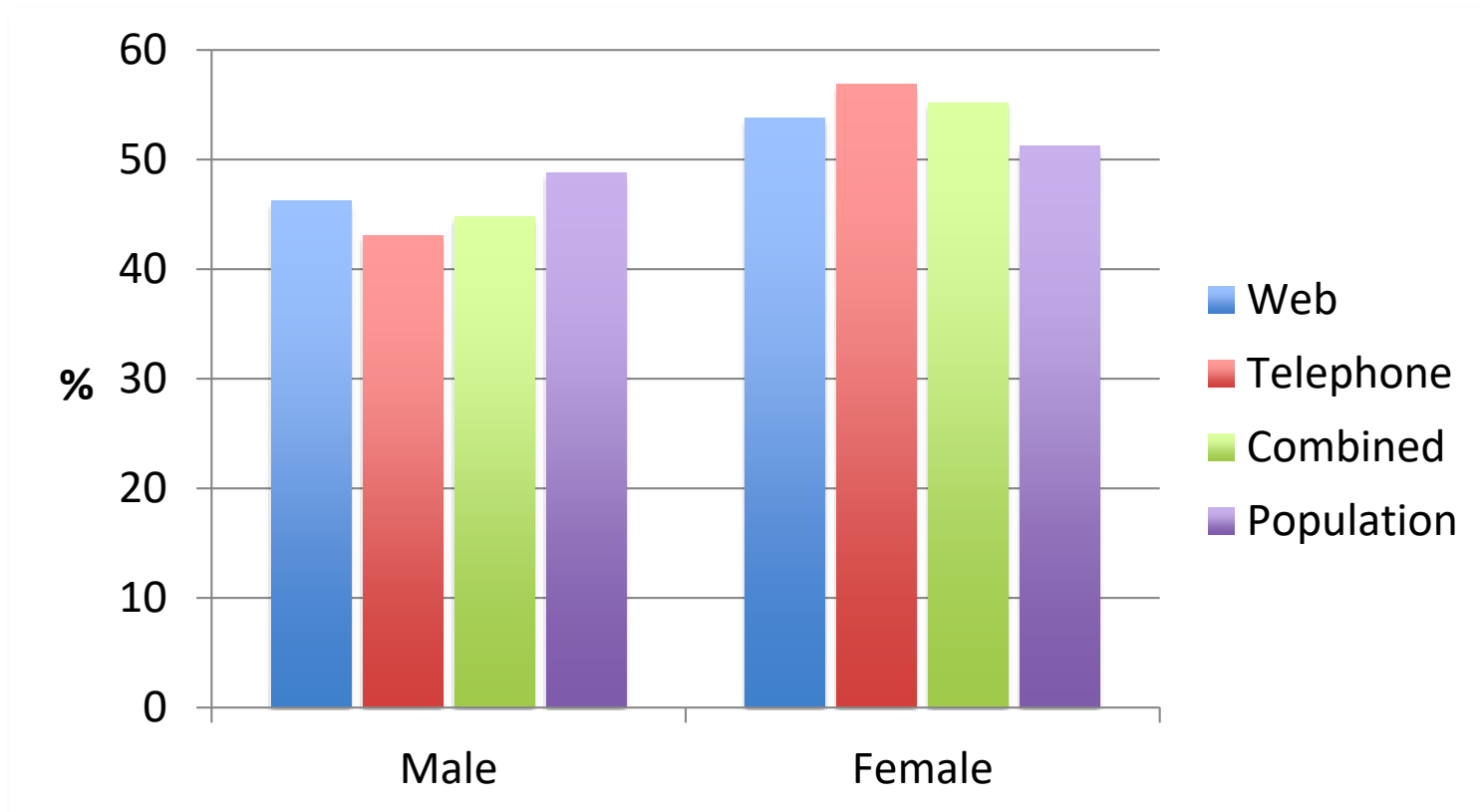
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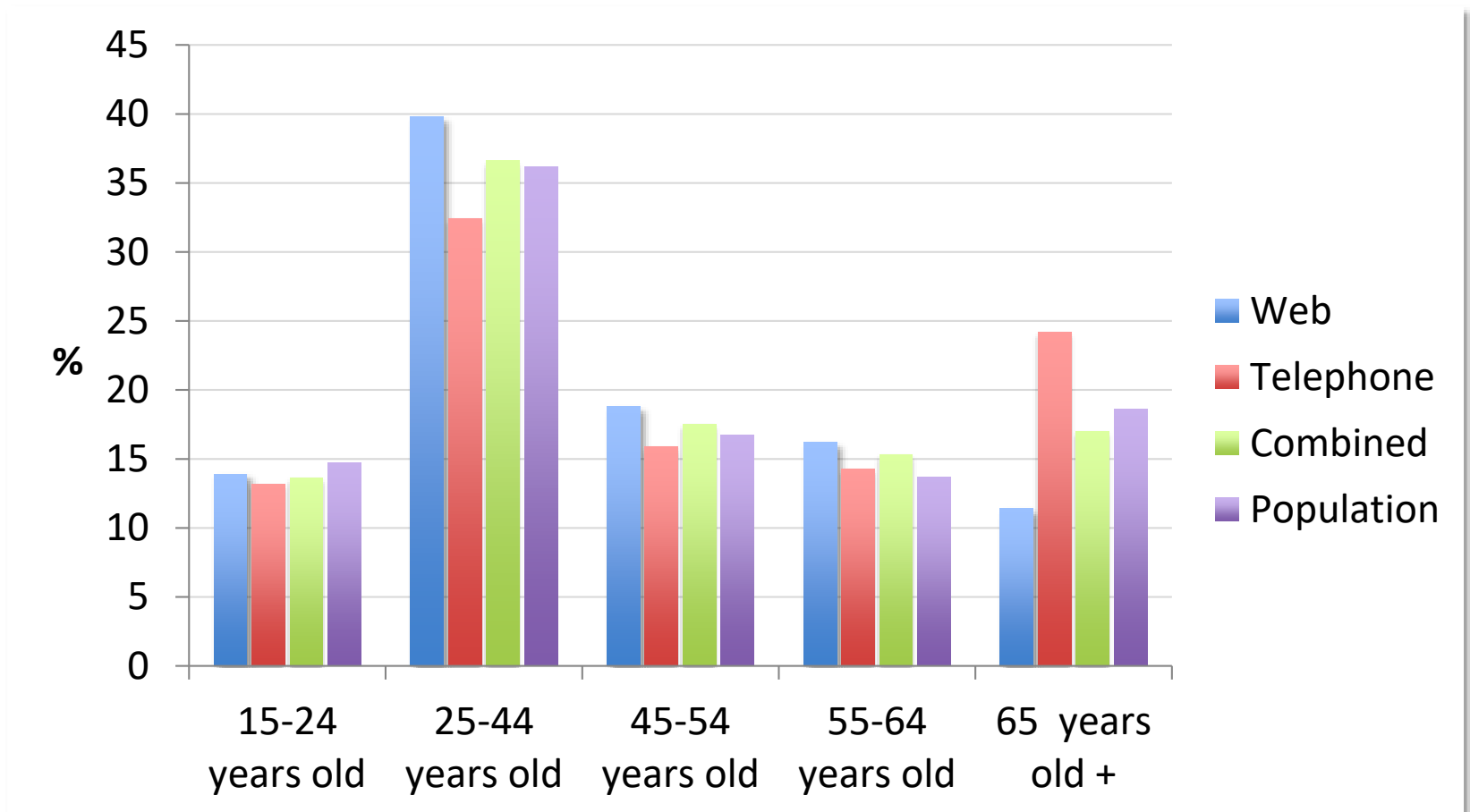
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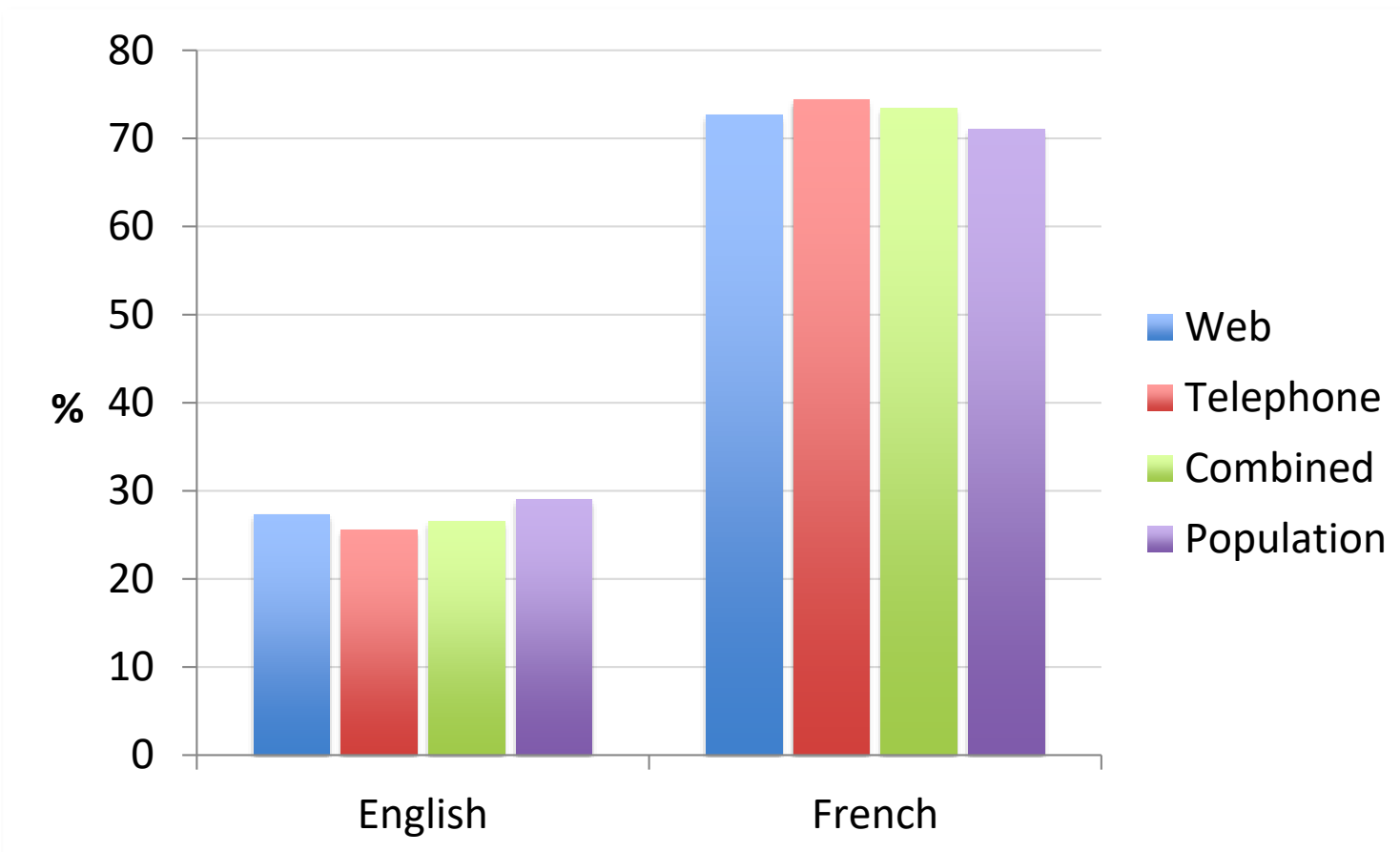
# Sex — Unweighted results



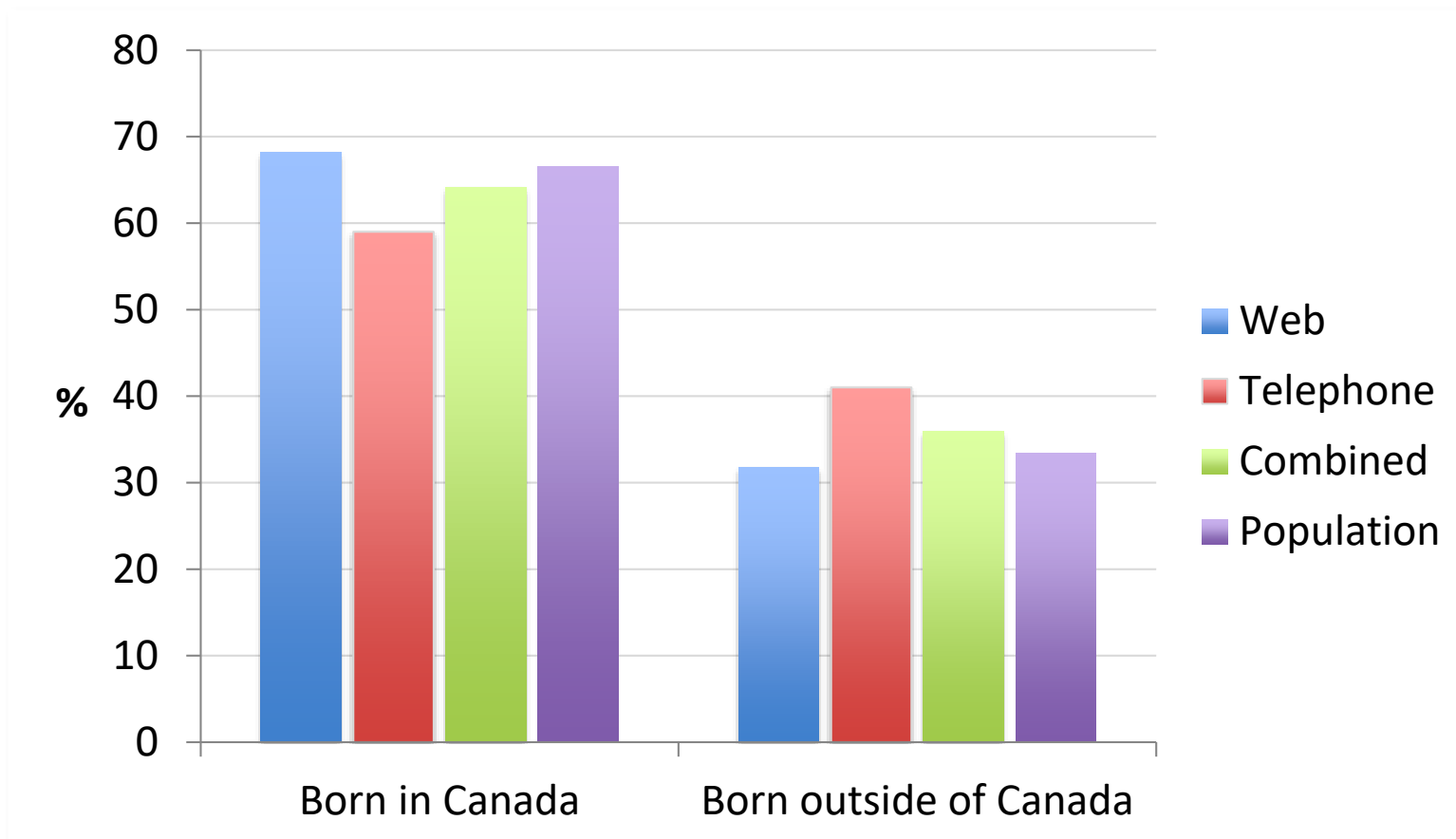
# Age groups – Unweighted results



# Language— Unweighted results



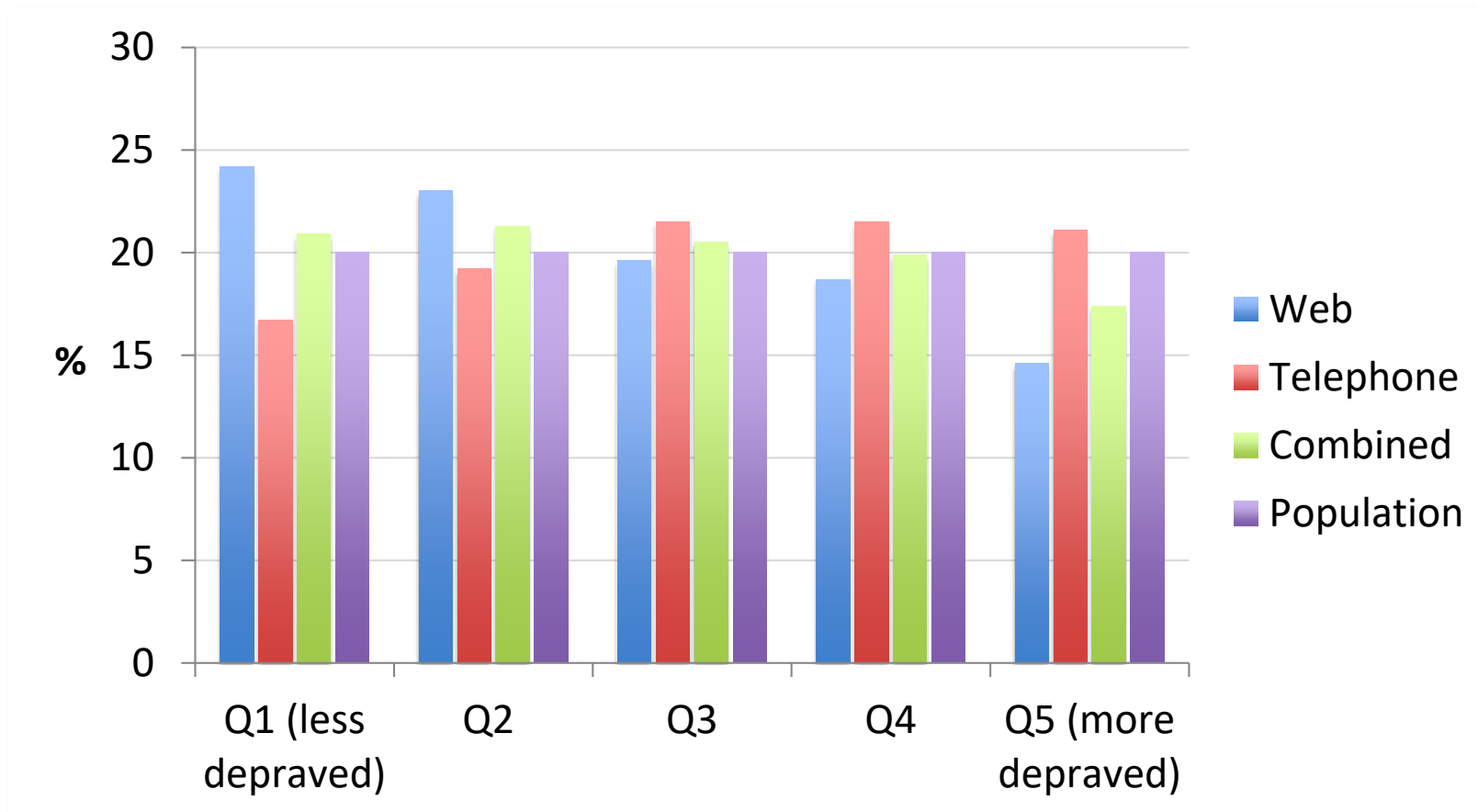
# Immigrants – Unweighted results





# Material deprivation Index

## Unweighted results



# Incomplete questionnaires

Analyzed by sections – not only at « break-off »

## Indicators

- % of completion: 75%
- Time required to complete: detailed analysis of questionnaires completed in 11 minutes or less
- Number of connexions required to complete
  - last connexion cannot be the only indicator

**25 rejected questionnaires**

# Validation of respondent's identity

**Age** and **sex** of respondents was compared with the information contained in sample frame database

**114 rejected questionnaires**

# Item non reponse

Item by item analysis

Generally low : inferior to 5%

Except revenu: **24% (21% web – 28% tel)**

# Non response and weighting

## Non response adjustments based on info from sample frame database

- age
- sex
- place of residence (local public health unit)
- day or night night phone (yes or no) in database
- address holder name (yes or no) in database
- preferred language for correspondence (French or English)

## CHAID – *Chi-Square Automated Interaction Detection*

## Post-stratification based on census data

- Age, sexe, CSSS population projections based on **Census data**

# Quality of indicators

# Results on health indicators

Limited mode effect on most indicators

– Adjustments: age, education level

Combined (web + tel) results comparable to other survey sources

# What works? And what does not?



## Access to a detailed sample frame

- Registry information useful for personalized invitations and reminders, but also for non response adjustments

## Branding and communication

- Unified branding likely helped the survey, but no actual test without branding
- Social media was not effective in the context of the study – Facebook campaign made lots of noise
- Buying Adwords was a good investment

# Website content

- Keep it simple
- Study objectives clearly stated
- FAQ +/-
- Make « Participate » button always visible

# Questionnaire

- Keep it short
- Think like *Mad Men*: push limits of survey tool
- Avoid matrix questions in web version

# Data collection - fieldwork

## Invitation letters

- Should be official – letterhead - logos
- Should consider the diversity of audience
- Should focus on concrete objectives
- Offer simple instructions for participating

## Reminders

- Web focus telephone reminders are effective and require minimum effort
- Telephone focus reminders are effective with people not likely to complete on the web
- Postal and e-mail reminders have limited impact on response rates
- 48% off total respondents participated in first 3 weeks of each waves

# Data collection - fieldwork

## Active telephone interviews

- Starting week 4 of each waves, main objective is to complete sample with telephone interviews
- Possibly already in refusal conversion mode

## Complex pre-programmed interviewer scripts

- Multi modes
- Multi language
- Multi reminders
- Waves
  - Wave 3 too short to achieve optimal response rates

# Global results

- Did not contribute to higher response rates
- Did contribute to better representativity
- Low item non response
- Heavy validation
- Good quality and comparability of main health indicators
- Cost reduction: 33%

Merci!  
Questions?

# What works? Getting the General Population To Go Online in a Mixed Mode Local Health Survey

Louis-Robert Frigault et al.

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