

# *Cities, villages and suburbs: is there a difference when giving blood?*

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# Context

## Quebec, Canada

- Population of 8 millions
- 80% of the population lives around the St-Laurent River
- 45% in the metropolitan region of Montreal



# Context

## Hema-Quebec

- More than 3000 blood drives around the province
- Donation is on a voluntary base
- Only 3% of eligible donors give blood
- **Every 80 seconds someone needs blood in Quebec !!**



## Context

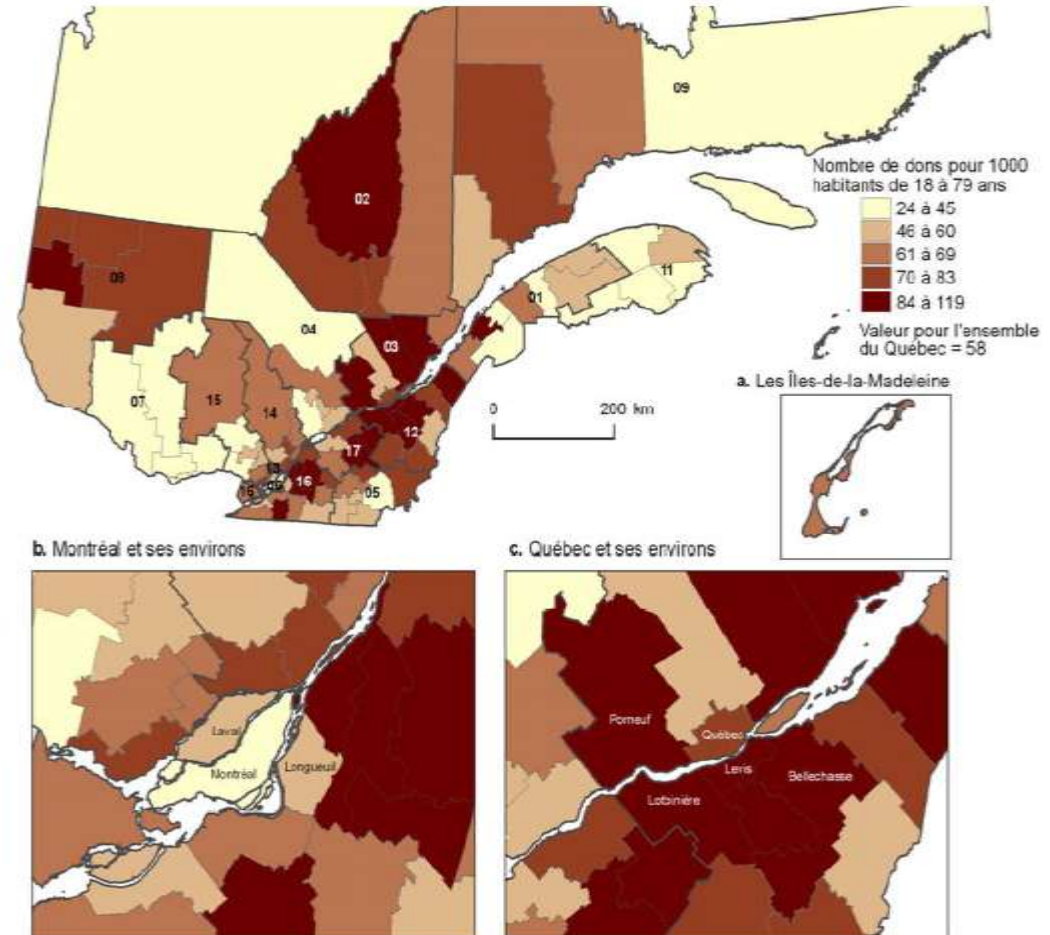
International studies show that there is a difference in blood donation depending on the environment of the donor. Examples:

- Piliavin et Callero (1991): the rural regions in the United States export more blood than the central regions
- Simon (2003): the rural regions in the United States give more blood.
- Bekkers et Veldhuizen (2008): in Netherlands there are more blood donations in regions with low density of population.

Their hypothesis: sense of community and mutual aid are stronger in rural regions.

## Context

Study on the geography of blood donation in Quebec by Apparicio *et al.* (2009) shows regional disparities.



Note : classification selon les quintiles.  
Voir la liste des régions administratives à la figure 1 et la liste des MRC à la figure 2.  
Source : Héma-Québec. Traitement et analyse : INRS-UCS.

Figure 7. Nombre moyen de dons pour 1000 habitants par année et par MRC de résidence (ensemble des donateurs sur les cinq dernières années).

## Objective

The aim of this research is to explore the differences in the act of giving blood between urban, suburban and rural areas.

- Urban: distinguished by higher population and built infrastructure density and variety (Lévy et Lussault, 2003)
- Suburbs: an urbanized territory surrounding a city centres (Merlin et Choay, 2005).
- Rural: lower population density with greater space for natural and agricultural land uses (Lévy et Lussault, 2003)

# Questions and hypotheses of research

## Questions:

- What are the structural factors (or dimensions) influencing the act of donating blood?
- Is the usual dichotomy between rural and urban donors relevant?

## Hypotheses:

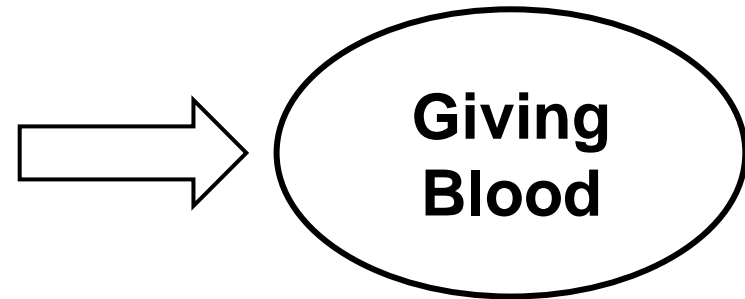
- The inclination of giving blood will be influenced by the urban, suburban and rural area of residential.
- Based on the structural model of Cohen *et al.* (2000), the relative importance of structural factors will vary between different types of residential areas.

# Methodology

Factors influencing  
blood donation

**Types of residential areas:**  
urban, suburb or rural

- 1. Availability:** accessibility of blood supply in case of need
- 2. Physical structures:** a) built: the physical place of blood collection sites b) social: the staff, the volunteers, etc.
- 3. Social environment:** influence of the peers, knowing people who gives.
- 4. Cultural and Media messages:** publicity, slogans, cultural acceptance.





## Interviews

- 51 semi-structured interviews in 27 municipalities
  - Montréal, Québec
  - Centre du Québec, Montérégie, Rive-Nord et Rive-Sud de Montréal, Beauce, Portneuf, Charlevoix



# Interviews

- Active donors and non-active donors (i.e who had not given blood in the past 3 years)
- Men and women, aged between 30 and 45 years
- Héma-Québec data base, postal code for geographical anchoring
- Duration: approx. 50 minutes

<b>URBAN</b>	<b>Active</b>	<b>7</b>
	<b>NON-Active</b>	<b>8</b>
<b>RURAL</b>	<b>Active</b>	<b>10</b>
	<b>NON-Active</b>	<b>8</b>
<b>SUBURB</b>	<b>Active</b>	<b>8</b>
	<b>NON-Active</b>	<b>10</b>

# Analysis grid

	<b>RURAL</b>	<b>URBAN</b>	<b>SUBURB</b>
<b>Social environment</b>			
<b>Physical structures</b>			
<b>Availability</b>			
<b>Cultural and media messages</b>			

# Social environment

	<b>RURAL</b>	<b>URBAN</b>	<b>SUBURB</b>
<b>Motivation</b>	<i>«to help somebody with our blood donation»</i>	<i>«To help» «to make a good action» «to be a good citizen»</i>	<i>«Its give me a boost of energy» «that makes me proud» «to help someone»</i>

# Social environment

	<b>RURAL</b>	<b>URBAN</b>	<b>SUBURB</b>
<b>Giving Blood</b>	<p><i>«I'm going with my husband and his sister»</i></p>	<p>Active: <i>«My first donation was with my dad but now I'm going alone»</i>                      N-A: <i>«I always gave alone»</i></p>	<p><i>«My father always gave blood»</i>  <i>«This time, my daughter influence me to give»</i></p>
<b>Knowing people who donated or needed</b>	<p>YES</p>	<p>Active: YES (both)                      N-A: No (both)</p>	<p>Active: YES                      N-A: Yes (donate)                      N-A: No (needed)</p>

# Physical structures

	<b>RURAL</b>	<b>URBAN</b>	<b>SUBURB</b>
<b>Where they give</b>	<i>« They [Hema-Quebec] come here once or twice a year so I write it down in my diary »</i>	<i>« I saw their posters and that reminded me to go » « I'm going to an Hema-Quebec center because I can make an appointment and it's faster »</i>	Varies: work, community, spontaneous

# Physical structures

	<b>RURAL</b>	<b>URBAN</b>	<b>SUBURB</b>
<b>Type of blood donation site</b>	Mobile	Fix and Mobile	Fix and Mobile
<b>Limits</b>	None	<b>Time needed</b>	Time needed

# Availability

	<b>RURAL</b>	<b>URBAN</b>	<b>SUBURB</b>
<b>Accessibility of blood supply</b>	<i>«I'm sure that it will be»</i>	<i>«Maybe I'm optimistic but I hope so»</i>	<i>« Yes, but if we don't I will be there to give»</i>
<b>Shortage</b>	<i>« I never thought about it»</i>	<i>«I hope they gonna advise us before...»</i>	<i>«They must manage it»</i>
<b>Risk to contract illness in transfusion</b>	<i>«Everything is checked so I believe that its safe»</i>	<i>«Of course there is some risks!»</i>	<i>«Do they verify all the tubes? We don't know»</i>



# Cultural and media messages

	RURAL	URBAN	SUBURB
What society thinks	<p><i>« It's not something that we talk a lot... but I think that in general people think that its a good action »</i></p> <p><i>« Many people are afraid to give... »</i></p>		

## Limits of the research

- Four people were conducting interviews...
- Territories classified as rural region are not always really rural.
- The island of Montreal includes urban and suburban areas.

## Future studies

- To compare the characteristics of blood donors vs. those who don't give blood to further understand the reasons for giving blood and try to encourage this behaviour in the population.
- ... **because we need blood !!**

# Thank you!

# Questions?

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## Le guide d'entretiens

Structure sociale	Structure physique	Disponibilité	Médias et culture
<i>Premier don:</i> accueil, influence des pairs	<i>Premier don:</i> type de collecte	<i>Confiance en l'organisme:</i> peut-il y avoir des pertes	<i>Routine de don:</i> comment se souvenir d'aller donner
<i>Routine de don:</i> seul ou accompagné, intentions futures	<i>Confiance en l'organisme:</i> lieu de collecte, risque pour les maladies	<i>Besoin de sang:</i> y aura-t-il du sang disponible si un jour vous en avez besoin	<i>Représentation du don de sang:</i> don de sang, don de vie
<i>Représentation du sang et du don:</i> connaître d'autres personnes qui donnent			