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

Élianne Carrier
Urban Studies student M.Sc
National Institute of Scientific Research

Director:
Marier-Soleil Cloutier

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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!!
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.
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.
Factors influencing blood donation

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 acceptation.

**Methodology**

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

Giving Blood
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
## Analysis grid

<table>
<thead>
<tr>
<th></th>
<th>RURAL</th>
<th>URBAN</th>
<th>SUBURB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social environment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical structures</td>
<td></td>
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<tr>
<td>Availability</td>
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<td></td>
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<tr>
<td>Cultural and media messages</td>
<td></td>
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</tbody>
</table>
### Social environment

<table>
<thead>
<tr>
<th>Motivation</th>
<th>RURAL</th>
<th>URBAN</th>
<th>SUBURB</th>
</tr>
</thead>
<tbody>
<tr>
<td>«to help somebody with our blood donation»</td>
<td>«To help»</td>
<td>«It's give me a boost of energy» «that makes me proud» «to help someone»</td>
<td>«To make a good action» «to be a good citizen»</td>
</tr>
</tbody>
</table>
## Social environment

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

<table>
<thead>
<tr>
<th>Where they give</th>
<th>RURAL</th>
<th>URBAN</th>
<th>SUBURB</th>
</tr>
</thead>
<tbody>
<tr>
<td>« They [Hema-Quebec] come here once or twice a year so I write it down in my diary »</td>
<td>« I saw their posters and that reminded me to go » « I’m going to an Hema-Quebec center because I can make an appointement and it’s faster »</td>
<td>Varies: work, community, spontaneous</td>
<td></td>
</tr>
</tbody>
</table>
## Physical structures

<table>
<thead>
<tr>
<th>Type of blood donation site</th>
<th>RURAL</th>
<th>URBAN</th>
<th>SUBURB</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mobile</td>
<td>Fix and Mobile</td>
<td>Fix and Mobile</td>
</tr>
<tr>
<td>Limits</td>
<td>None</td>
<td><strong>Time needed</strong></td>
<td><strong>Time needed</strong></td>
</tr>
</tbody>
</table>
## Availability

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

<table>
<thead>
<tr>
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<th>RURAL</th>
<th>URBAN</th>
<th>SUBURB</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>What society thinks</strong></td>
<td>« It’s not something that we talk a lot… but I think that in general people think that its a good action »</td>
<td></td>
<td>« Many people are afraid to give… »</td>
</tr>
</tbody>
</table>
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?

Élianne Carrier
Urban Studies student M.Sc
National Institute of Scientific Research
elianne.carrier@ucs.inrs.ca

Director
Marie-Soleil Cloutier

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# Le guide d’entretiens

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