

# Determinants of Self-rated Health Among Official Language Seniors Living in Minority Situation in Canada



Hubert Tote Alimezelli, PhD(c)

# Acknowledgements

- Co-authors:
  - Dr. Anne Leis
  - Dr. Chandima Karunanayake
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# Objectives

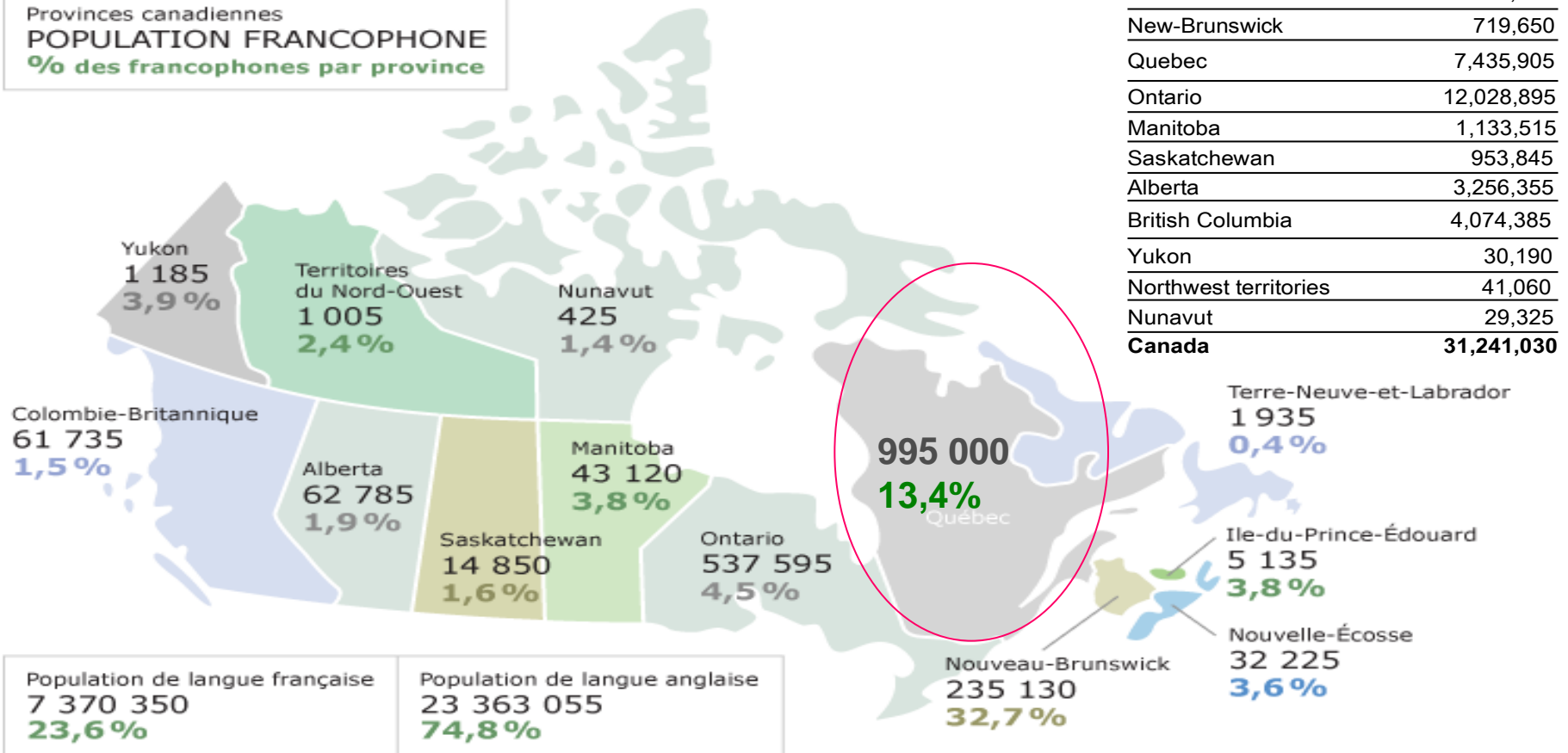
- Describe Official Language Seniors Living in Minority Situation in Canada
- Identify factors associated with their self-rated health
- Compare Official Language Minority Seniors in Quebec and outside Quebec

# Background

- Canada's population is aging very rapidly: one in five people in 2026 will be 65 years and over
- Minority status due to language, age and race has been shown to impact negatively on health
- Aging has been found to be associated to decreasing health status
- Lack of or limited majority language proficiency found to be associated with poorer access to health services
- Seniors belonging to official language minorities in Canada may be at a greater risk of poor health status

# Official Language Minorities in Canada

Provinces canadiennes  
**POPULATION FRANCOPHONE**  
 % des francophones par province



Source : Commissariat aux langues officielles, Les langues officielles au Canada, [carte de répartition de la population de langues française et anglaise au Canada], 2007

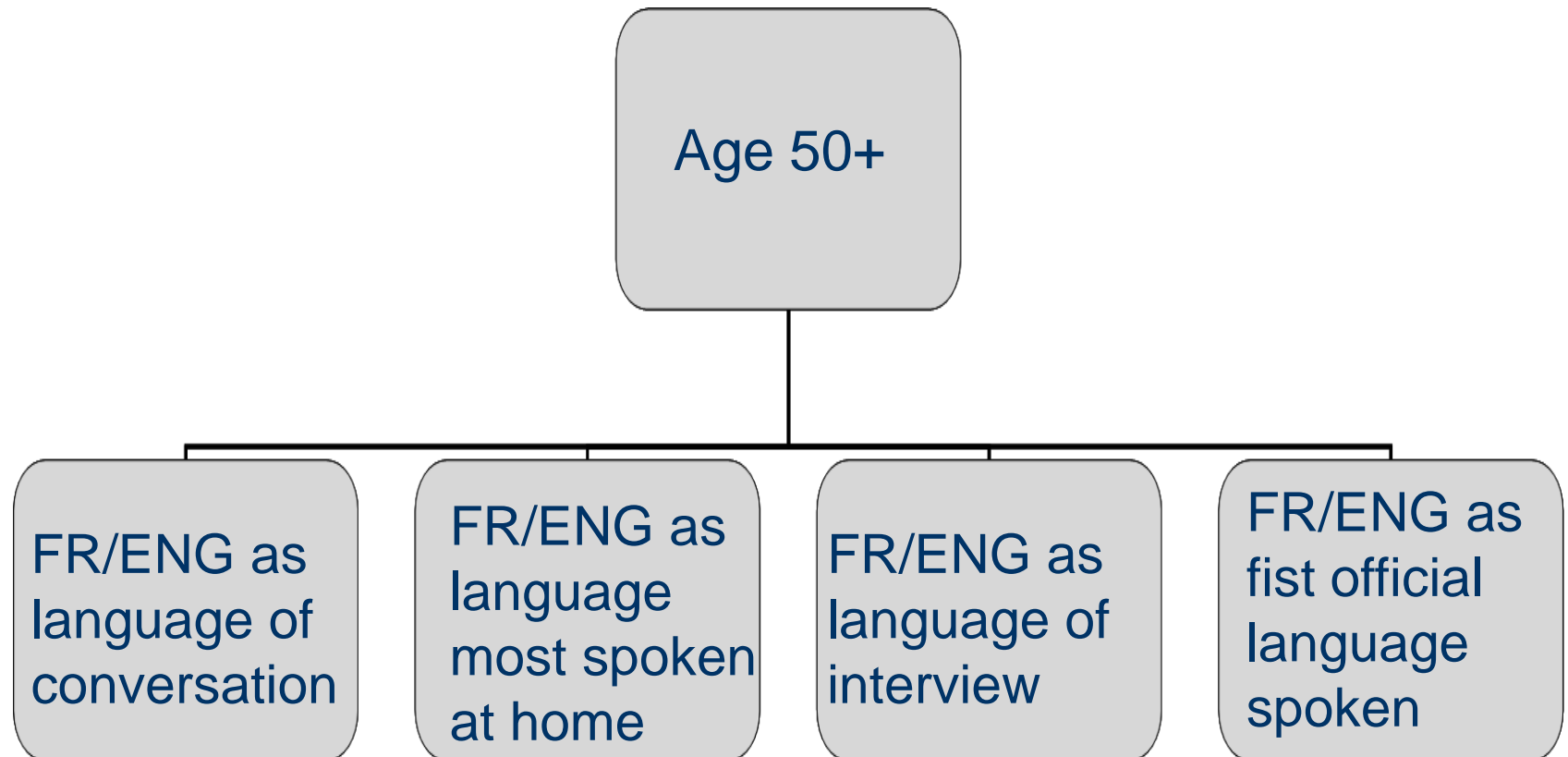
# Conceptual Approaches

- Population Health
- Andersen Model of Health Services Utilization
- Constitutional Framework for Official Languages in Canada

# Methods: Data Source

- This study used data from the 2006 post-census Survey on the Vitality of Official Language Minorities (SVOLM) by Statistics Canada.
- The survey covered all 10 Canadian provinces and three territories.
- The health module of the survey was used primarily but relevant variables from other modules was used as well.

# Methods: Population Definition

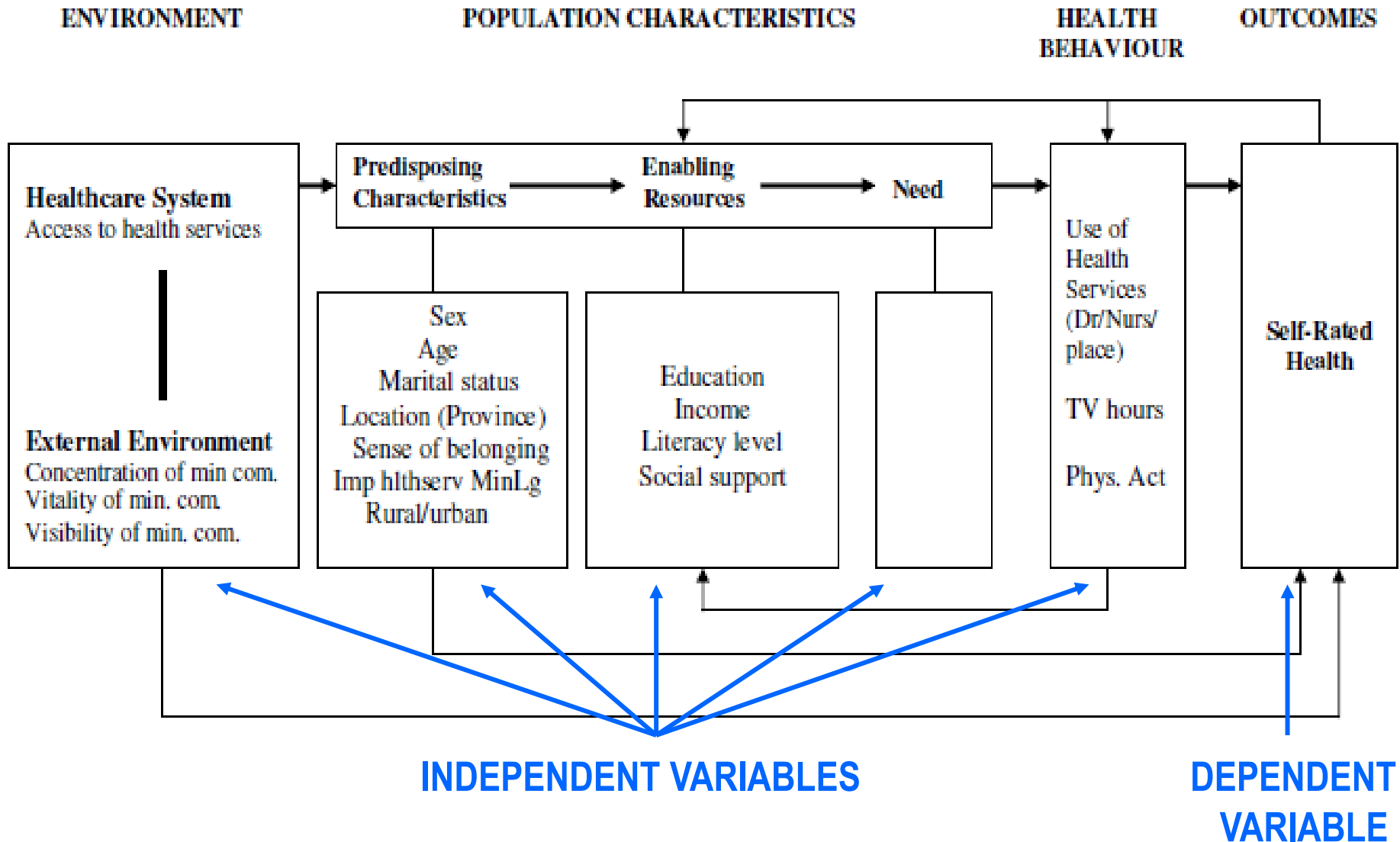




# Methods: Samples

Region/Province		Sample size SVOLM	
Francophones outside of Quebec	Maritimes	1,845	<b>4,888</b>
	Ontario	1,757	
	Western Canada	1,289	
	Territories	Excluded	
Anglophones in Quebec	Outside of Montreal	~2,532	<b>3,161</b>
	In Montreal	~629	
<b>CANADA</b>			<b>8,049</b>

# Methods: Variables & The Andersen Model (1995)



# Methods: Analysis

- Descriptive analyses including frequencies, cross tabulations, and bivariate linear regression analyses were carried out using SPSS 17.
- Binary variables were coded with categories 0 and 1. 0 as the reference category was generally applied to categories with the highest number of cases.
- The outcome variable of self-rated health had five categories coded as follows: 1-Excellent, 2-Very Good, 3-Good, 4-Fair, 5-Poor.

## Methods: Analysis (Cont'd)

- A manual backward selection approach done through SPSS 17. Variables were eliminated on the basis of non-significance ( $P > 0.05$ ) and of variable importance.
- Bootstrapping was done with SUDAAN in order to yield accurate standard errors estimation.
- Key assumptions of multiple linear regression such as linearity, independence of errors, equality of variances (homoscedasticity) and normality were all verified.

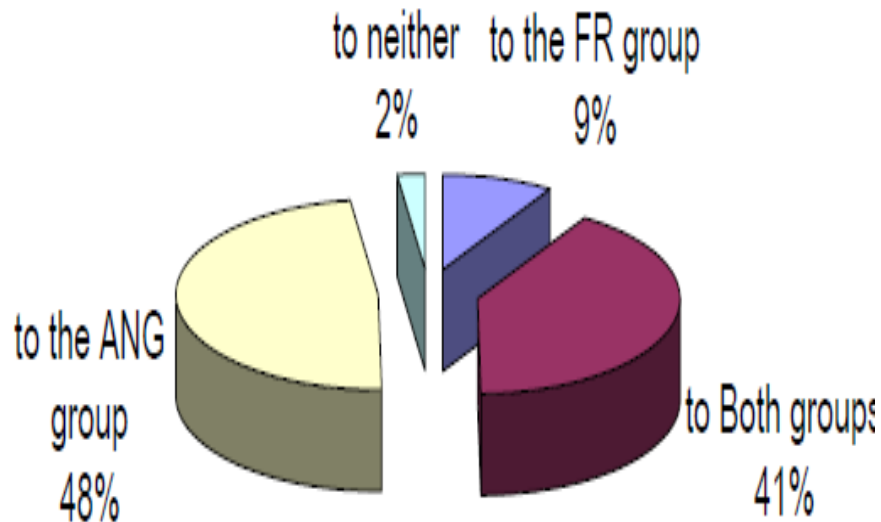
# Results: Descriptive

- Among Francophone seniors, 59.3% were aged 50 to 64 and 40.7% were over the age of 65. Quebec's Anglophone seniors are slightly older, 57.4% and 42.6% respectively)
- 23.3% of minority Francophone seniors live below the Low Income Cut Off (LICO) level with the percentage being slightly lower for their Anglophone counterparts in Quebec at 23.1%.
- 48% of Anglophone seniors in QC versus 35% of their Francophone counterparts in the rest of Canada identify with their official language minority community.

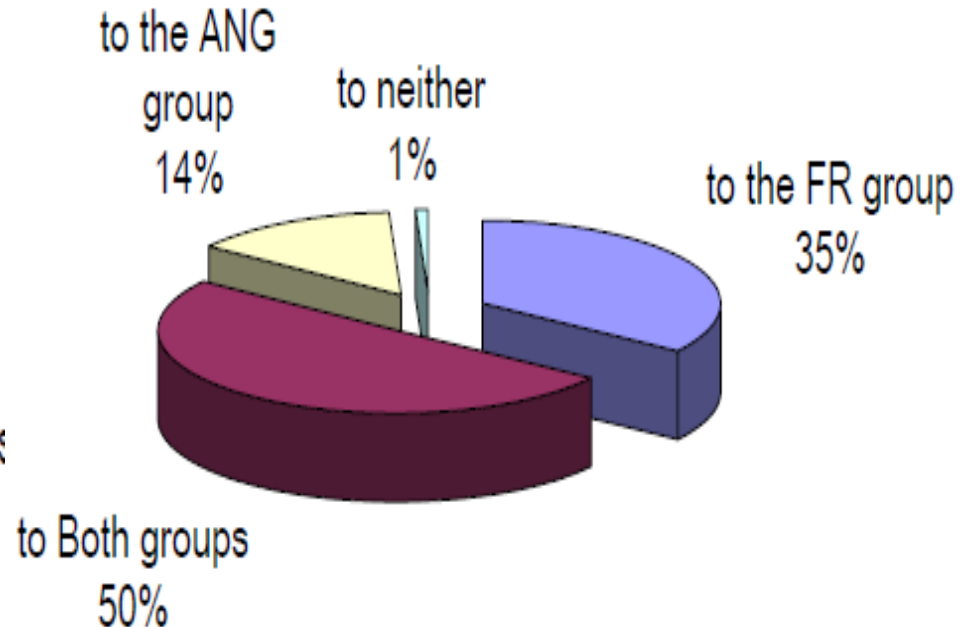
# Results: Descriptive (Cont'd)

- 82.1% of seniors in QC versus 54.1% outside QC thought it was important to receive health services in the minority language
- Sense of belonging to minority community

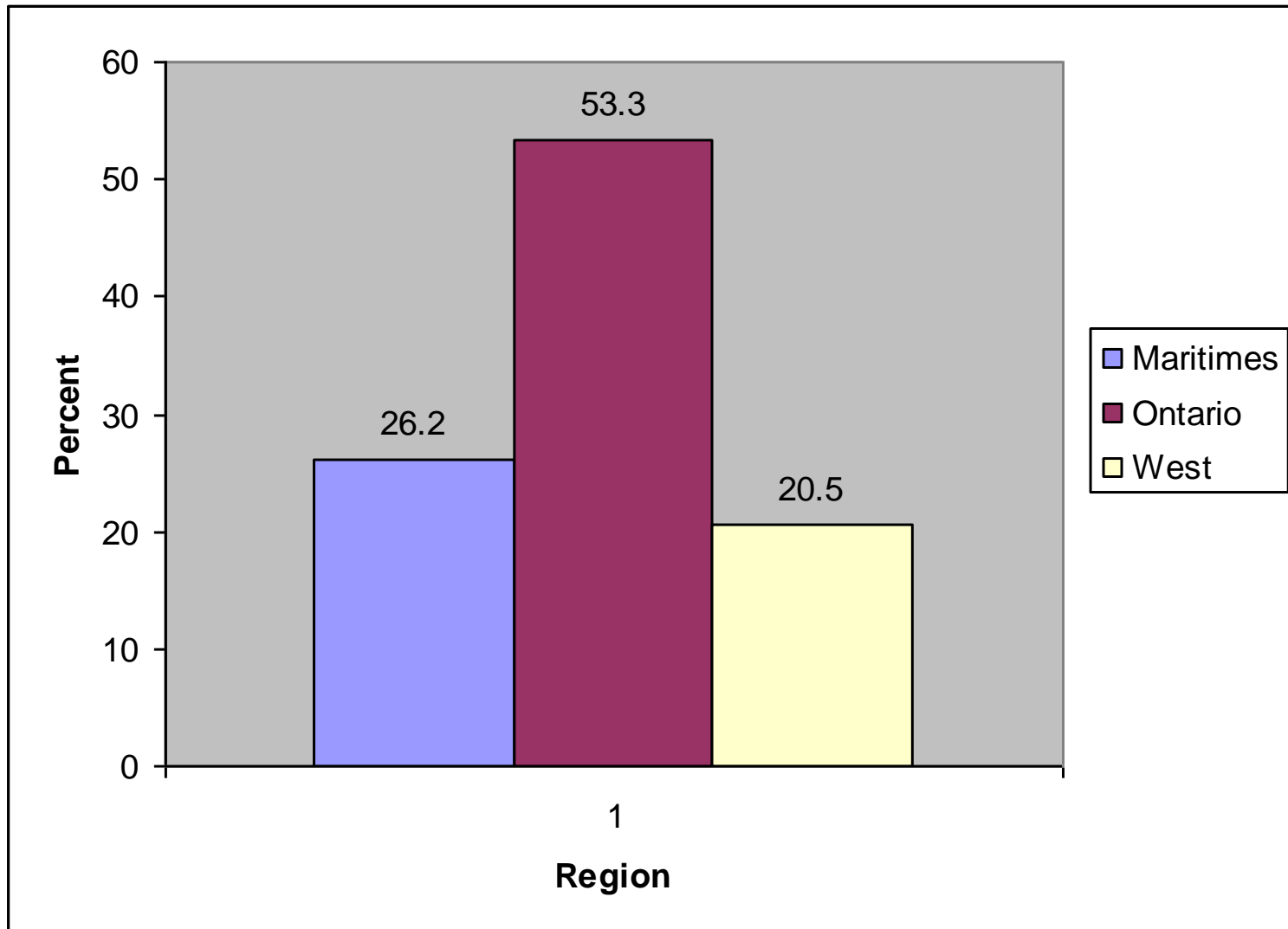
## Anglophones in Quebec



## Francophones outside Quebec

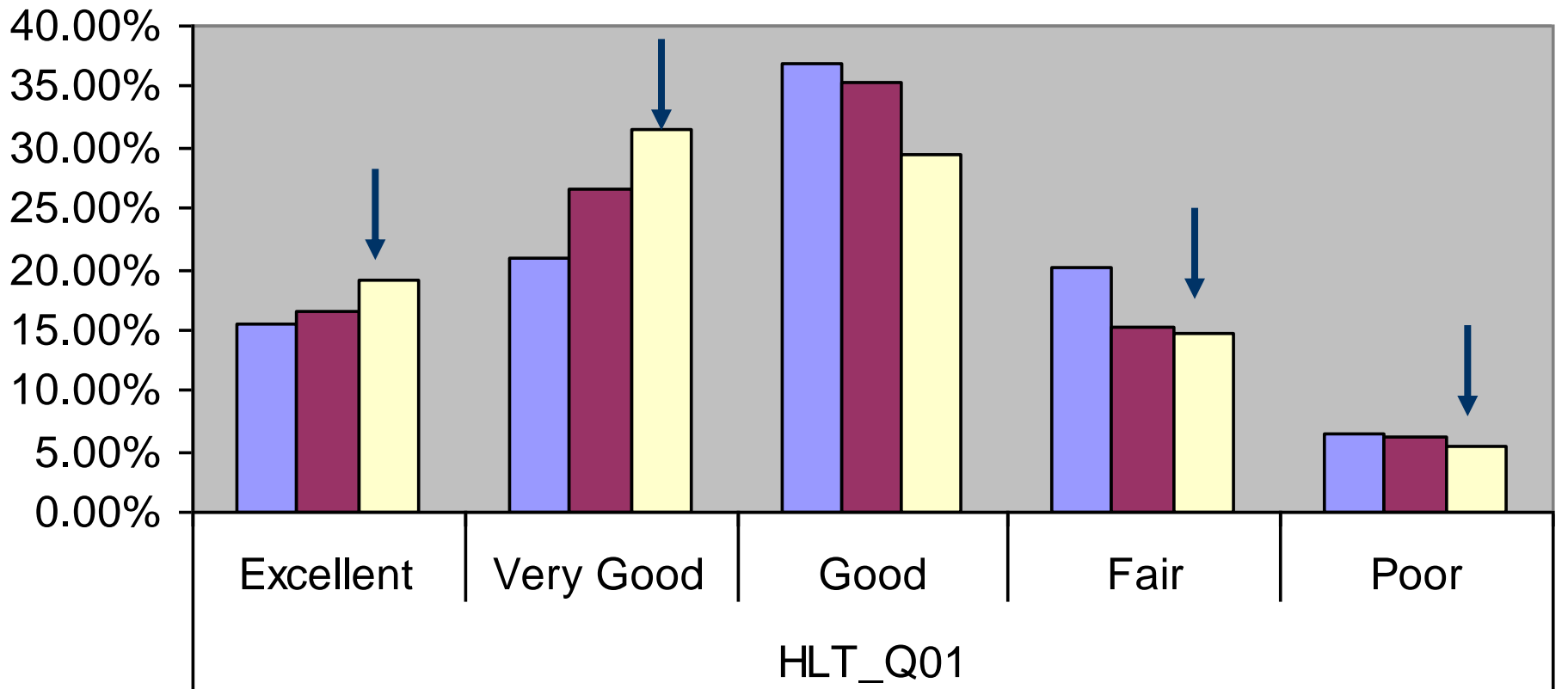


# Distribution of Francophones by regions



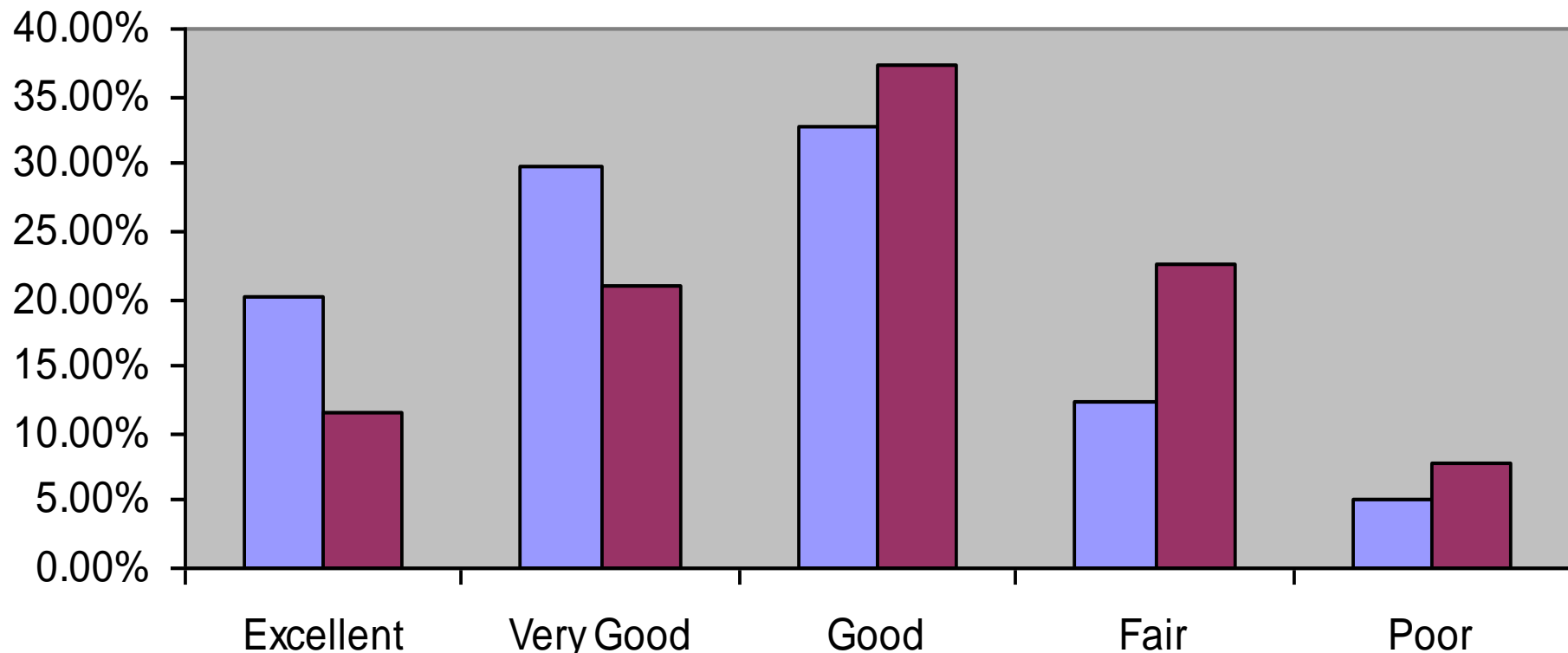
## Self-rated health by regions

Maritimes Ontario West





## Self-rated health by age



50 - 64 65+

# **Results: Multivariable Analyses**

# Factors associated with Self-rated health in Francophones

Significant Factors		FR Outside Quebec	
		Beta	P-value
Importance Health Services [no/yes(ref)]		-0.07	0.1731
Doctor services	Saw doctor less than 3 times	-0.43	0.0000
	Saw doctor often	0.45	0.0000
	Saw doctor regularly(ref)		
Use of nurse services [no/yes(ref)]		0.17	0.0014
Location (rest of Canada)	Western provinces	-0.13	0.0397
	Maritime provinces	0.05	0.3025
	Ontario(ref)		
Marital status [no partner/partner(ref)]		0.12	0.0236
Education	High school education	-0.34	0.0000
	Post secondary education	-0.22	0.0149
	Less than high school(ref)		
Sense of belonging	to Francophone group	-0.18	0.0252
	to both FR & ANG groups	-0.09	0.1969
	to Anglophone group (ref)		
Vitality of min lang com [strong/weak(ref)]		-0.16	0.0019
Social support	from comm. Res. & public inst.	0.15	0.0038
	from nobody	0.32	0.0064
	from family & friends(ref)		
Literacy level (reading) [poor/good(ref)]		0.27	0.0000
Hours spent watching TV [>14 hrs/<14hrs(ref)]		0.15	0.0019
Practice of sports	Practice sports sometimes	-0.15	0.0098
	Practice sports often	-0.28	0.0001
	Practice sports regularly(ref)		
Low income cut-off [below/above(ref)]		0.13	0.0245
Concentration of Min grp [high/weak-med(ref)]		0.17	0.003
R-square			0.250

# Key findings: Francophones outside Quebec

- (Increased) use of health services associated with poorer self-rated health
- Seniors from Western Provinces more likely to rate their health better than seniors in Ontario (shocking?)
- Sense of belonging to and vitality of the Francophone community associated with better SRH
- Lower concentration of francophone community associated with poorer SRH
- Differences by age groups were noted:
  - “Social support”, “literacy level”, “hours spent watching TV” were all significantly associated with self-rated health for the 50-64 age group but not significant at all for the 65+.
  - Conversely, “Income” and “visibility of minority language community” were found to be associated with self-rated health for the 65+ but no significance was noted for the 50-64 age group.

# Factors associated with SRH in Anglophones

Significant Factors		FR Outside Quebec		ANG in Quebec	
		Beta	P-value	Beta	P-value
Importance Health Services [no/yes(ref)]		-0.07	0.1731	0.25	0.0028
Doctor services	Saw doctor less than 3 times	-0.43	0.0000	-0.33	0.0000
	Saw doctor often	0.45	0.0000	0.46	0.0000
	Saw doctor regularly(ref)				
Use of nurse services [no/yes(ref)]		0.17	0.0014	0.16	0.0182
Location (rest of Canada)	Western provinces	-0.13	0.0397		
	Maritime provinces	0.05	0.3025		
	Ontario(ref)				
Marital status [no partner/partner(ref)]		0.12	0.0236	0.08	0.21
Education	High school education	-0.34	0.0000	-0.09	0.3015
	Post secondary education	-0.22	0.0149	-0.24	0.011
	Less than high school(ref)				
Sense of belonging	to Francophone group	-0.18	0.0252	0.16	0.1922
	to both FR & ANG groups	-0.09	0.1969	0.12	0.032
	to Anglophone group (ref)				
Vitality of min lang com [strong/weak(ref)]		-0.16	0.0019	-0.01	0.8914
Social support	from comm. Res. & public inst.	0.15	0.0038	0.07	0.307
	from nobody	0.32	0.0064	0.23	0.0981
	from family & friends(ref)				
Literacy level (reading) [poor/good(ref)]		0.27	0.0000	0.26	0.0000
Hours spent watching TV [>14 hrs/<14hrs(ref)]		0.15	0.0019	0.08	0.1319
Practice of sports	Practice sports sometimes	-0.15	0.0098	-0.13	0.0352
	Practice sports often	-0.28	0.0001	-0.27	0.0028
	Practice sports regularly(ref)				
Low income cut-off [below/above(ref)]		0.13	0.0245	0.25	0.0002
Concentration of Min grp [high/weak-med(ref)]		0.17	0.003	0.08	0.264
R-square			0.250		0.180

# Comparing Francophones & Anglophones

Factors and their association to self-rated health	Outside Quebec	Quebec	
Use of health services (doctor, nurse, place)	Yes	Yes	<b>Similarities</b>
Literacy level	Yes	Yes	
Education	Yes	Yes	
Income	Yes	Yes	
Age	No	No	
Rural/Urban	No	No	
Visibility of minority community	No	No	
Sense of belonging to minority community	Yes	No	<b>Differences</b>
Vitality of minority community	Yes	No	
Concentration of minority community	Yes	No	
Social support	Yes	No	
Marital status	Yes	No	
Importance hlth serv. in minority language	No	Yes	

## Key findings from comparison:

- “Importance of Rec. Hlth. Serv. In Min Lang” found to be significant only in Quebec
- “Marital status”, “Vitality of Minority Language Community”, “Concentration of minority community”, “Sense of belonging” significant with FR but not significant with ANG in Quebec
- “Rural/urban” variable not significant in both
- “Use of health services” significant both in Quebec and in the rest of Canada

# Discussion

- Strengths
  - Strong sampling design of survey by Statistics Canada
  - The Andersen model is an excellent tool in fitting the multivariable model and understanding how factors impact on the outcome variable
  - Study confirms some of the findings among other minority groups (e.g. Low SES associated with poor SRH)
  - Points to differences with Quebec that may suggest differences in contextual realities as well as policy approaches
  - Highlights the importance of health services but also of community and sense of belonging



# Discussion

- Limitations

- Low R-square: 0.250 for Francophone sample and 0.18 for Anglophone sample
- Key variables such as “language of service with health professionals”, “active offer”, “health issues”, not used due to too many missing cases
- Cross-sectional survey design issues with regards to causality
- Survey does not offer possibility to compare with the general population

# Conclusion

- This study demonstrates that language and attachment to community in addition to access to health services play an important role in the appraisal of health.
- The differences observed between Anglophones in Quebec and Francophones outside Quebec point to the complexity of factors at play.
- Official language minorities live in diverse contexts with diverse cultures, different healthcare systems, and different governments.
- Language plays an important role but it seems that if given the choice between language and service, language becomes secondary.

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**Merci!**

