

# Health in language minority situation

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# Absence of conflict of interest

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- I Marie Helene Chomienne declare that I have no affiliation, no sponsorship and no source of income from any commercial enterprise with regards to this presentation



# Plan of the presentation

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- Review of determinants of health and minority effect
- Presentation of our team's work on francophone minorities
- Our team
  - Louise Bouchard
  - Isabelle Gaboury
  - Mh Chomienne
  - Anne Poisson, Isabelle Gagnon-Arpin, Elina Haynes, Brigitte Gagnon



# Determinants of health

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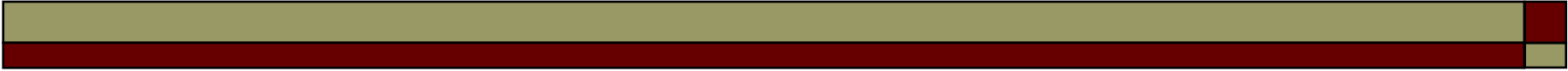
- Health is based on the interaction of numerous determinants
- Of these, can living in a minority situation be a significant contributor to health disparities ?



# Canadian context

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- ❑ Outside Quebec, only officially Francophone province, there is nearly one million of Francophones.
- ❑ Studies have shown that French-language healthcare services are three to seven times less accessible to Francophones in the different regions of Canada where they live in minority situations.
- ❑ This disparity is poorly documented and has not yet been the focus of rigorous assessments of healthcare policies and programs.



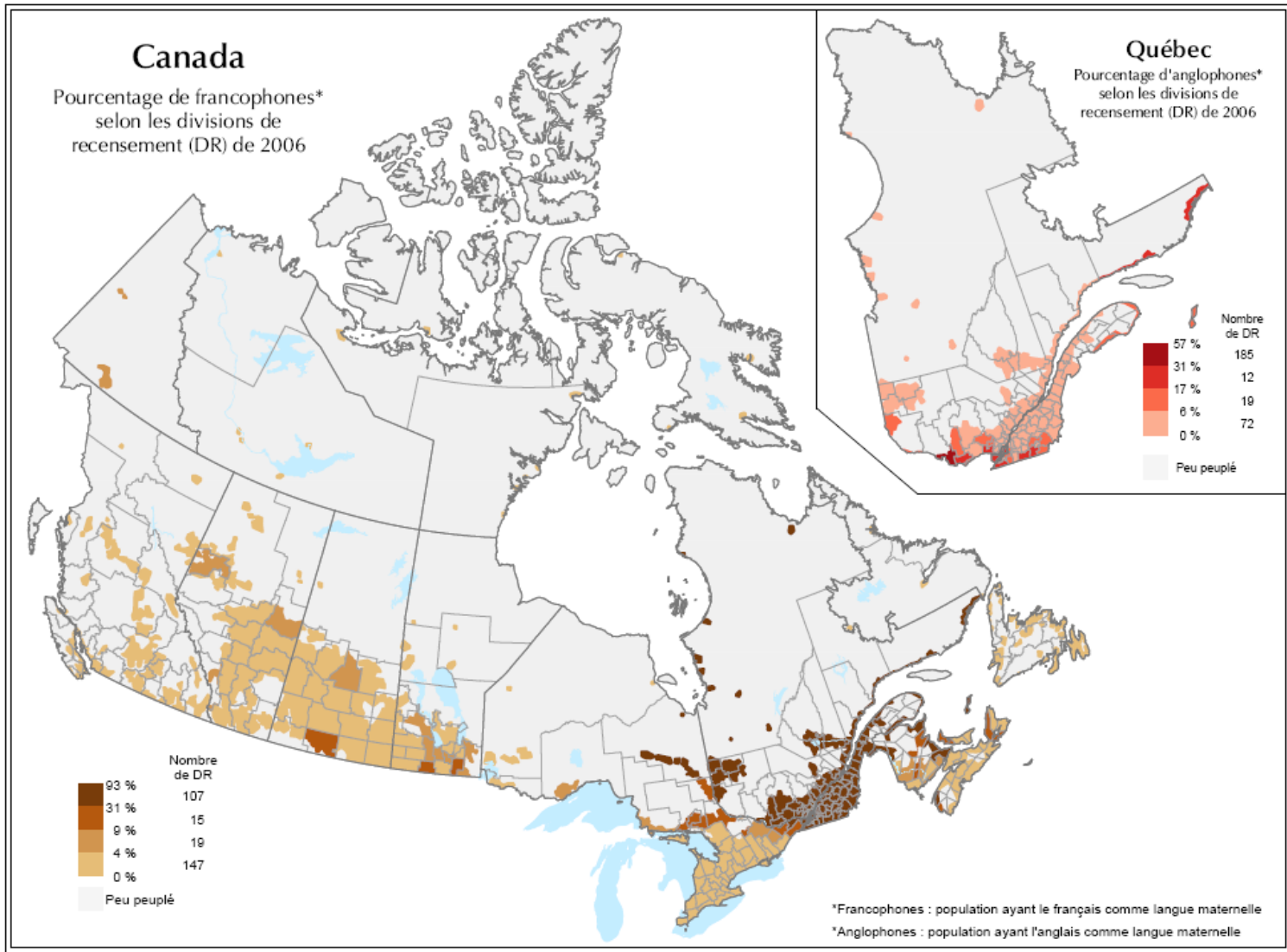
# Francophones in a minority context

## Demographics

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- 987 645
- 3.3 % Canadian population
- Unequal distribution
- Ontario : more than half : 527 710 (4.7%)
- New Brunswick : 238 450 (33.1%)
- Alberta: 58 825 (2%)
- Nunavut: 415 (1.6%)

Stats Canada 2006 census





# Demographics

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These communities have a different socio-economic profile from the rest of the Canadian population

- ❑ Older
- ❑ Lower education
- ❑ Lower numbers in the economic workforce
- ❑ Family income: similar to the Anglophones
- ❑ Live in general in more precarious economic environment



# National Population Health Survey 1996-1997

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## Francophone population of Ontario

- Fewer reported being in good health
- Not as active
- More chronic illnesses
- Increased use of medication
- Increased tobacco use
- More frequent drinking but not as heavy



# Demographics

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## Anglophones in a minority context

- 744 430
- Essentially concentrated in Quebec
- Represent 10% of the Quebec population
- The majority of them are in urban areas (Montréal, Québec city) with well-developed health institutions

2006 Census



# Official Languages Act

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- Adopted in 1969: recognized English and French as the official languages of all federal institutions in Canada
- In 1988 considerably modified
  - to ensure respect for English and French as the official languages of Canada
  - to support the development of English and French linguistic minority communities



# Official Languages Act

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- In 2005, the *Official Languages Act* was amended once again
  - to remind federal institutions of their responsibility to take positive measures to support the development of official language communities
  - to foster the full recognition and use of both English and French in Canadian society
  - Included an application for remedy to be made in cases of inaction or failure to comply with the obligations



# Language and health

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- Important to express oneself in one's own language
- Important in throughout continuum in health care ( promotion, care, treatment, follow-up)
- Important to establish an effective communication with health professionals



# Language barriers and health

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- Studies in United States, Europe, Canada
- Have shown the consequences of language barriers on health
  - Ill use of emergency services
  - Non compliance
  - Misunderstanding of recommendation
  - Decreased access to health
  - Reduced satisfaction



# Health profile of French- speaking minorities in Canada by province

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# Health profile of French- speaking minorities in Canada by province

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- These results are drawn from a secondary analysis of the Canadian Community Health Survey (CCHS) with the 2001, 2003 and 2005 cycles combined.
- The weighted data are based on a sample of 256,966 people: 12,584 Francophones and 244,384 Anglophones.
- When sample size per province is too small, data is not reported
- This health profile shows
  - the most adverse situations and determinants for the French-speaking minority relative to the English-speaking majority.

*This project was made possible through funding provided by the Canadian Institutes of Health Research (CIHR).*

NORMED 2 octobre 2009  
Mh Chomienne, L. Bouchard, I. Gaboury



# Indicators

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## □ Socio economic

- Age
- Income
- Education
- Unemployment
- Rurality

## □ Lifestyles

- Smoking
- Drinking
- Nutrition
- Obesity

## □ Health status

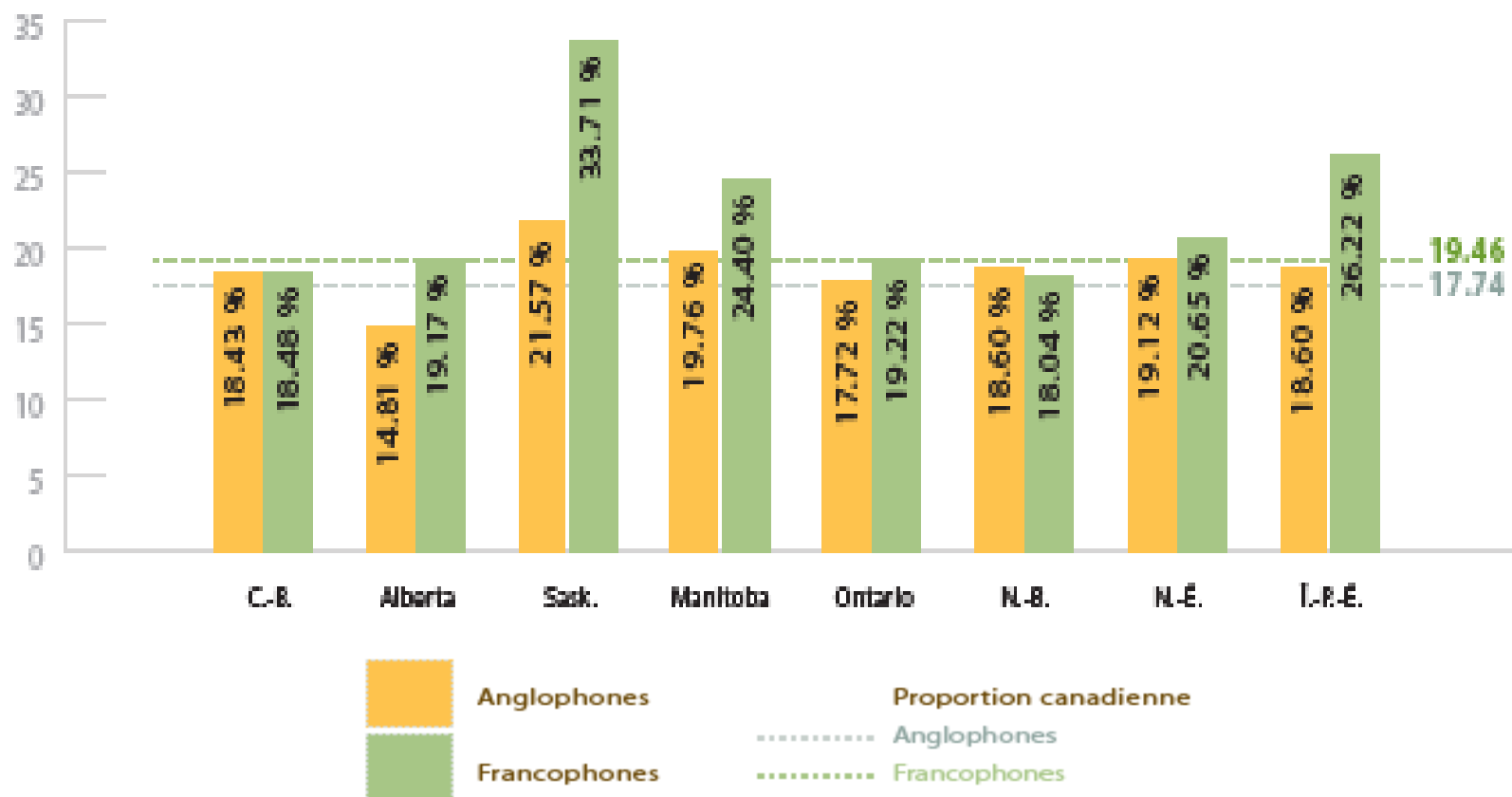
- Self reported
- Morbidity
- Disability
- Stress

## □ Health services

- Without a family doctor
- More than 6 visits in past year
- Unmet needs
- Access to services in French

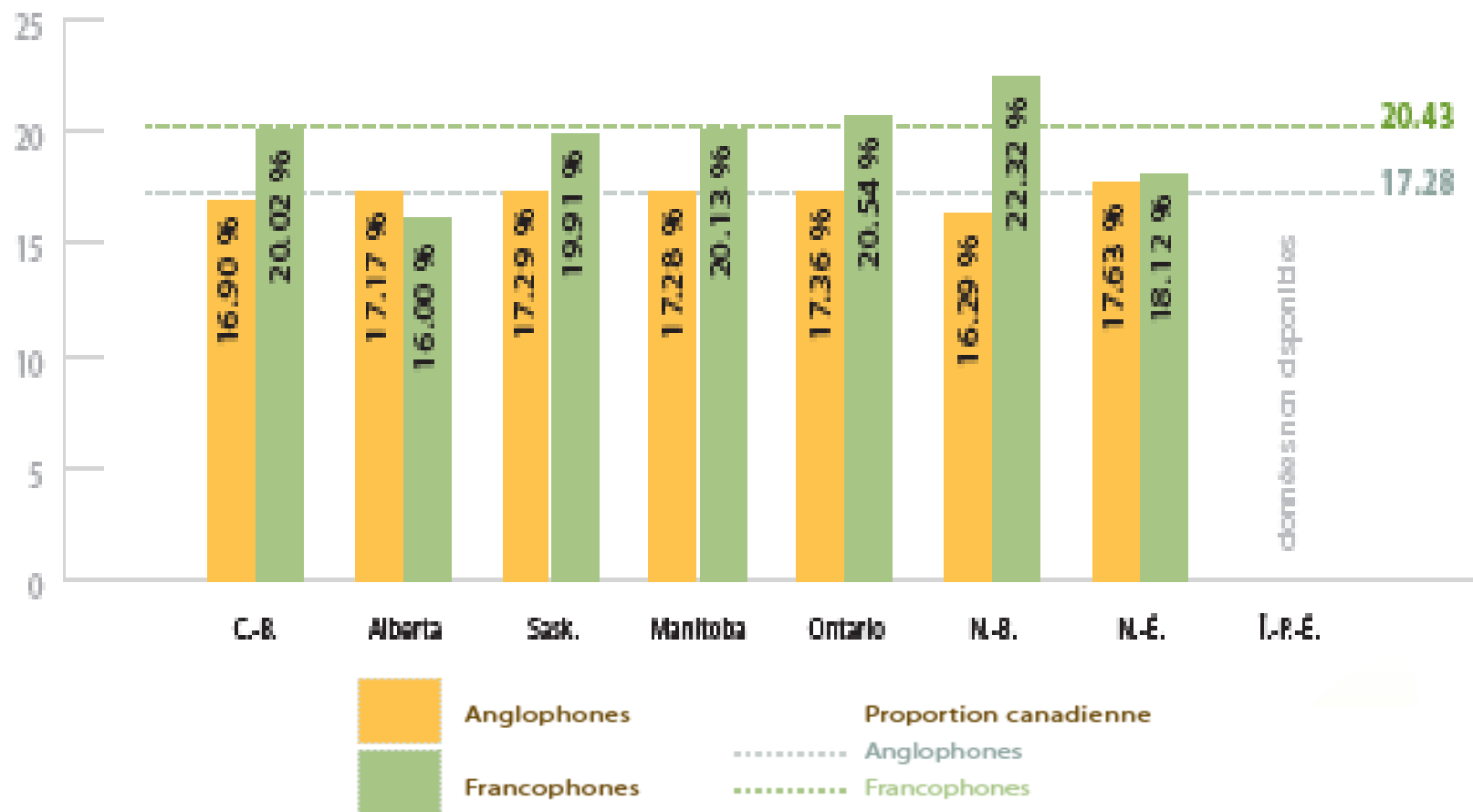
# Age

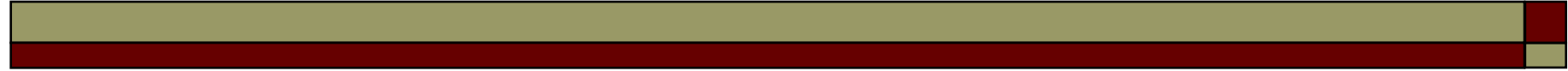
Groupe d'âge : 65 ans et plus



# Low Income

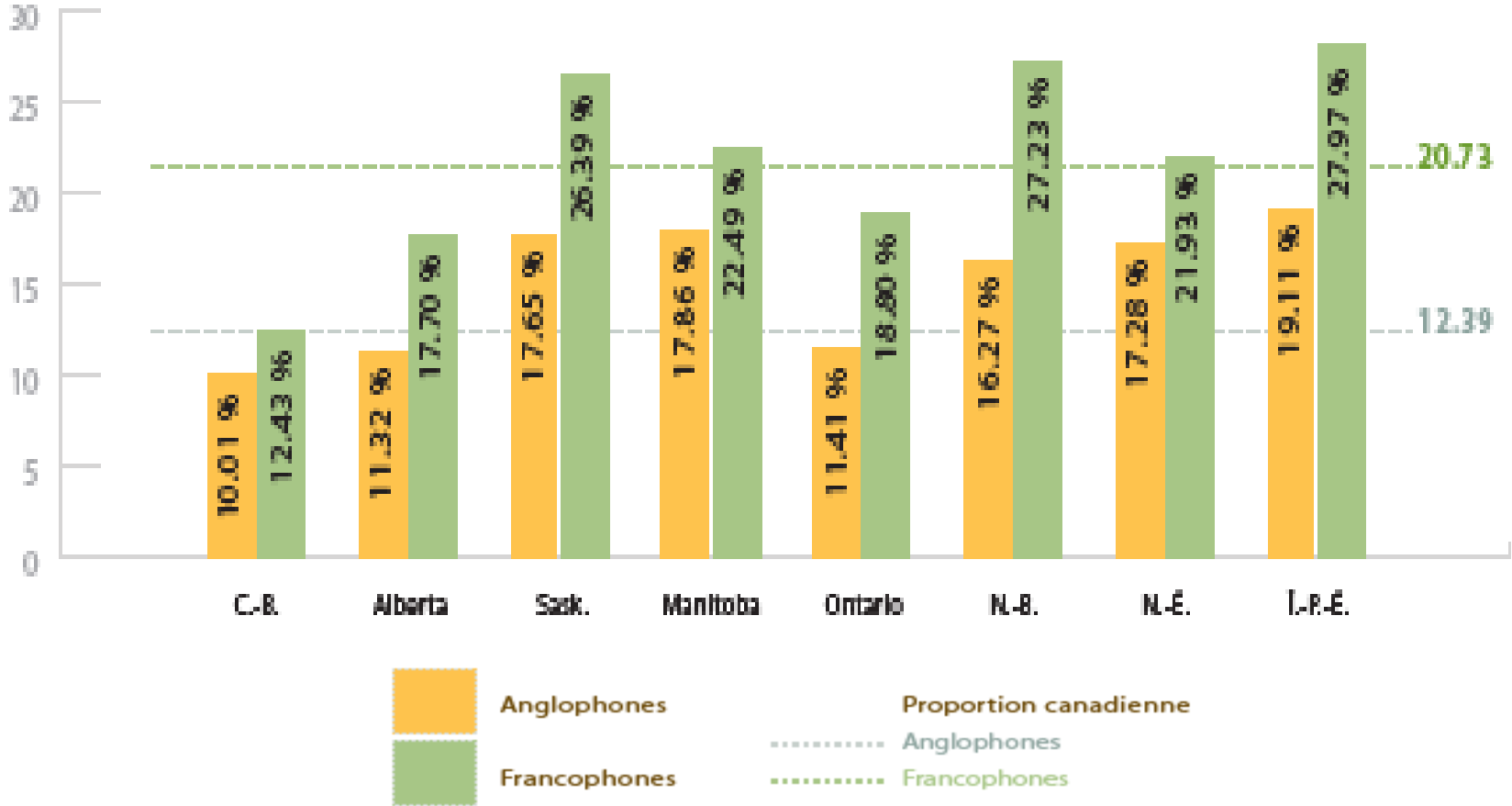
Revenu : entre 0 et 19<sup>e</sup> percentile





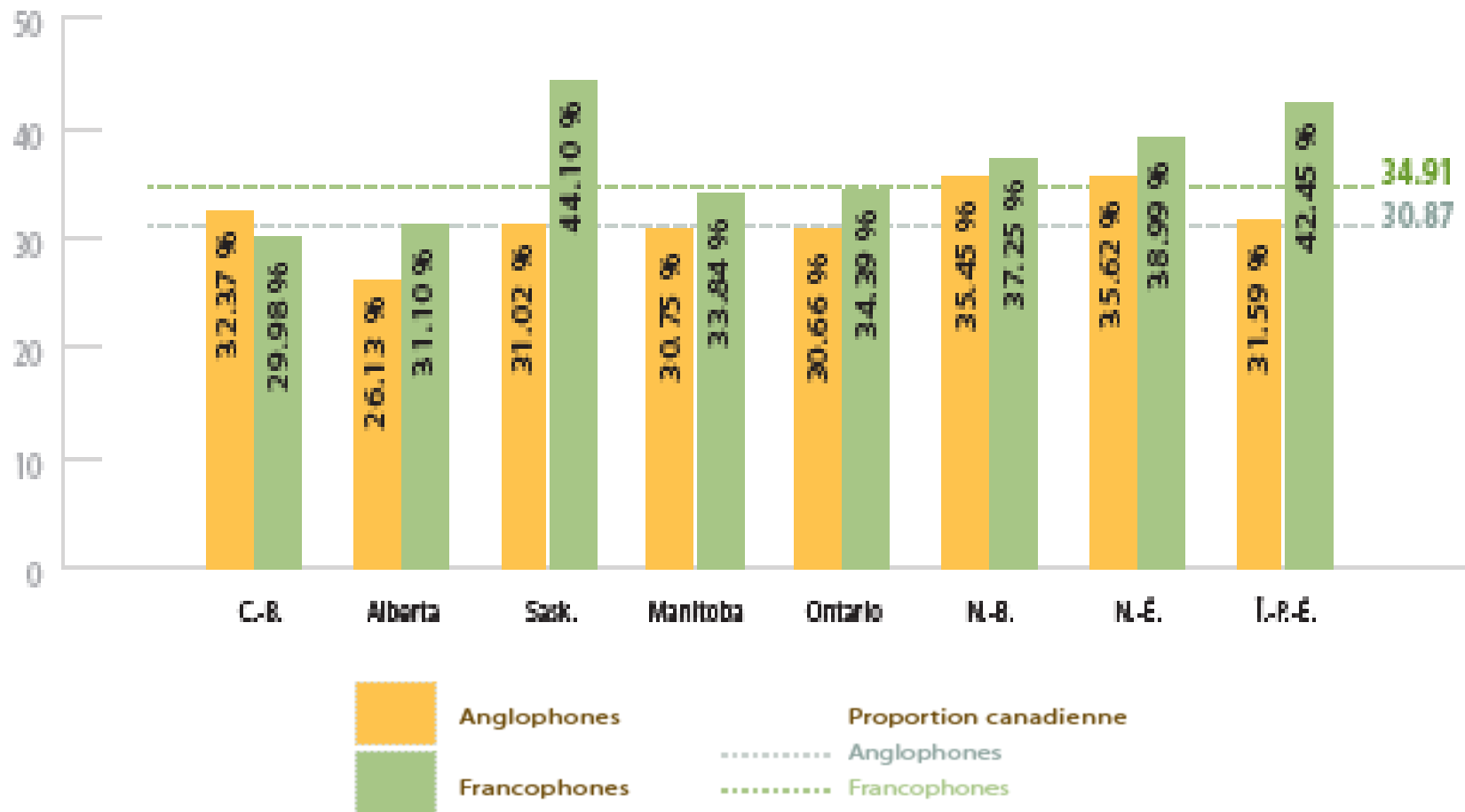
# Education: less than high school diploma

## Éducation : moins d'un diplôme secondaire



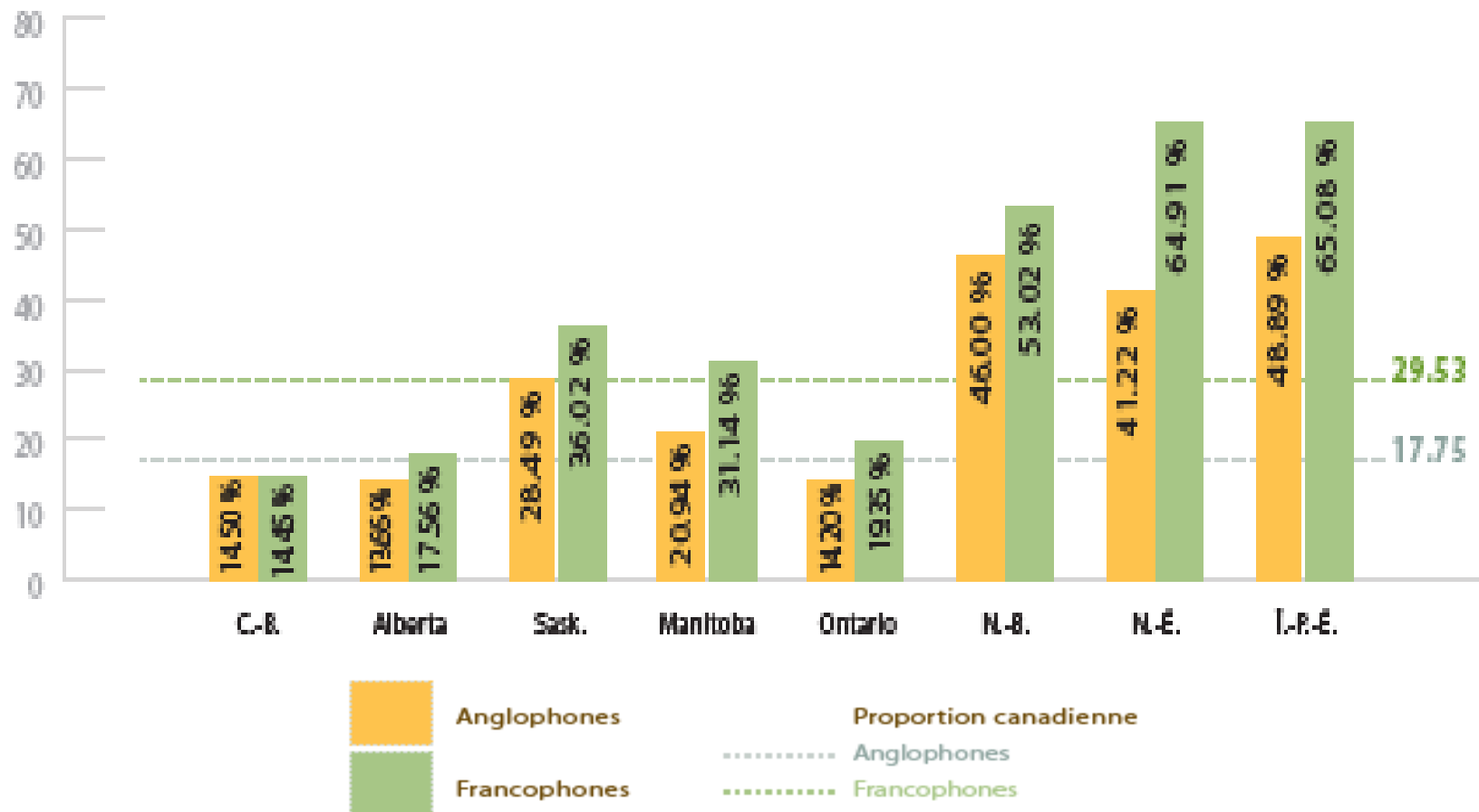
# Unemployment

Activité sur le marché du travail : inactif



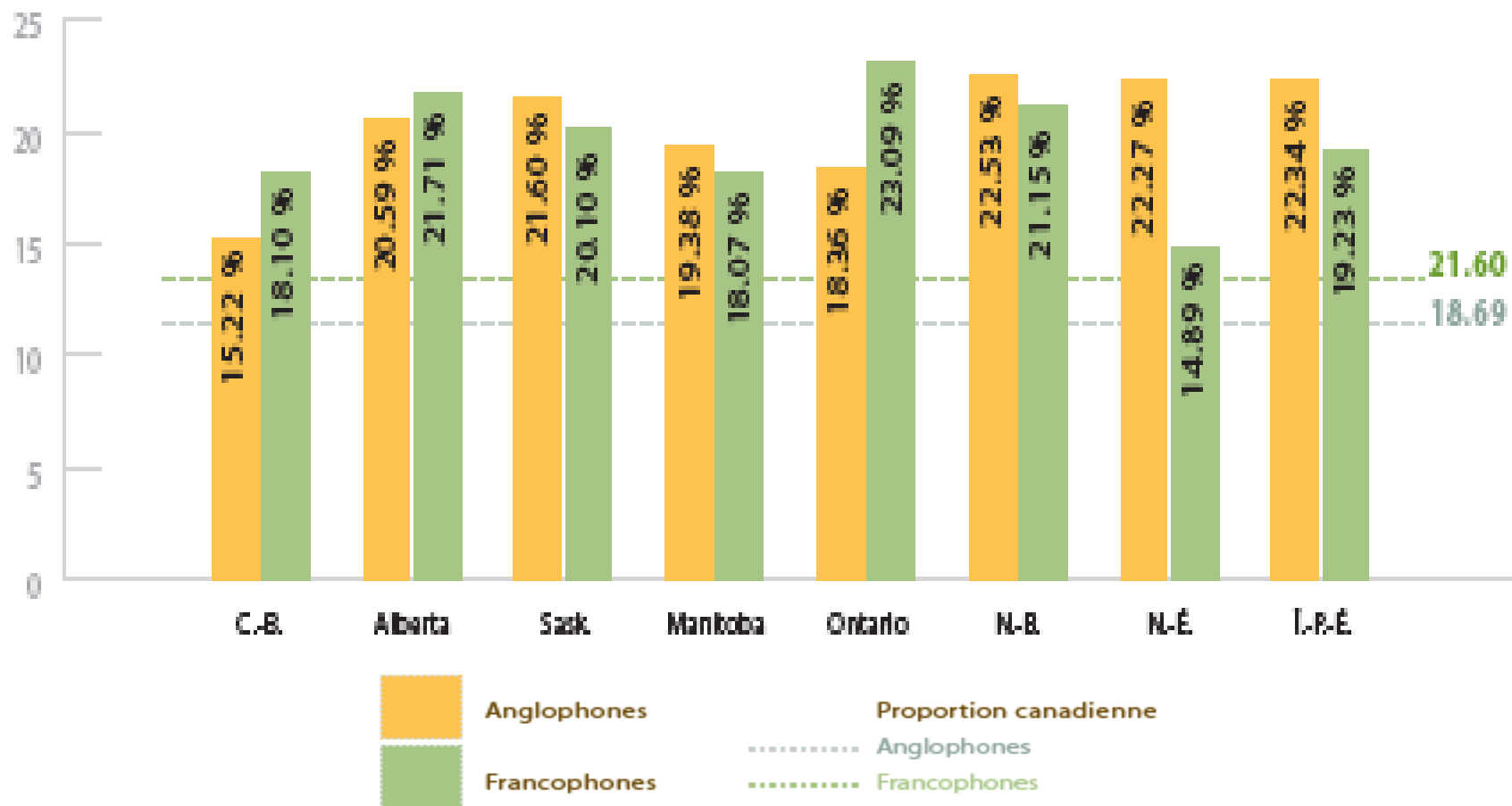
# Rurality

Région : rurale



# Smoking

Fumeur régulier : OUI

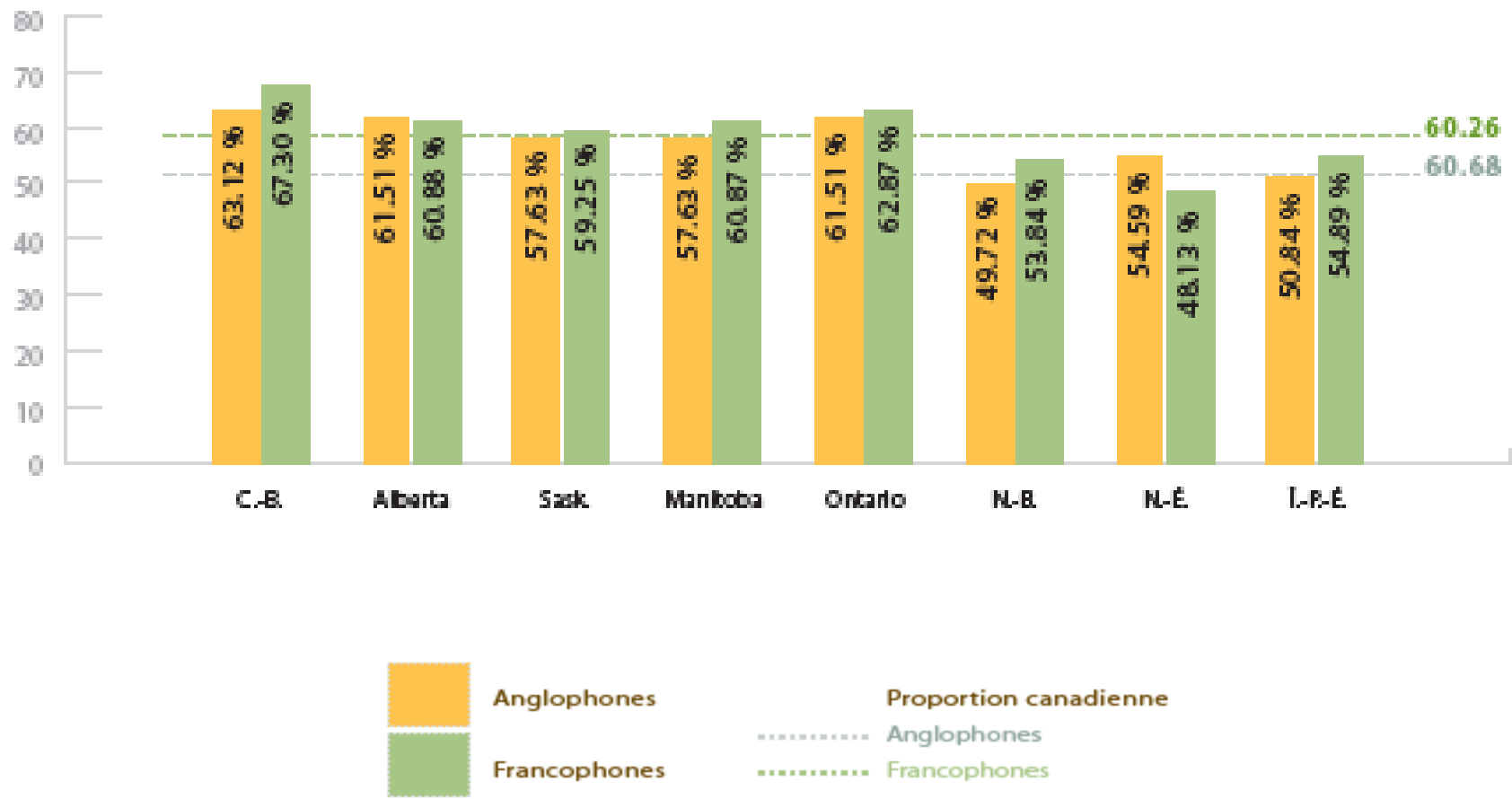


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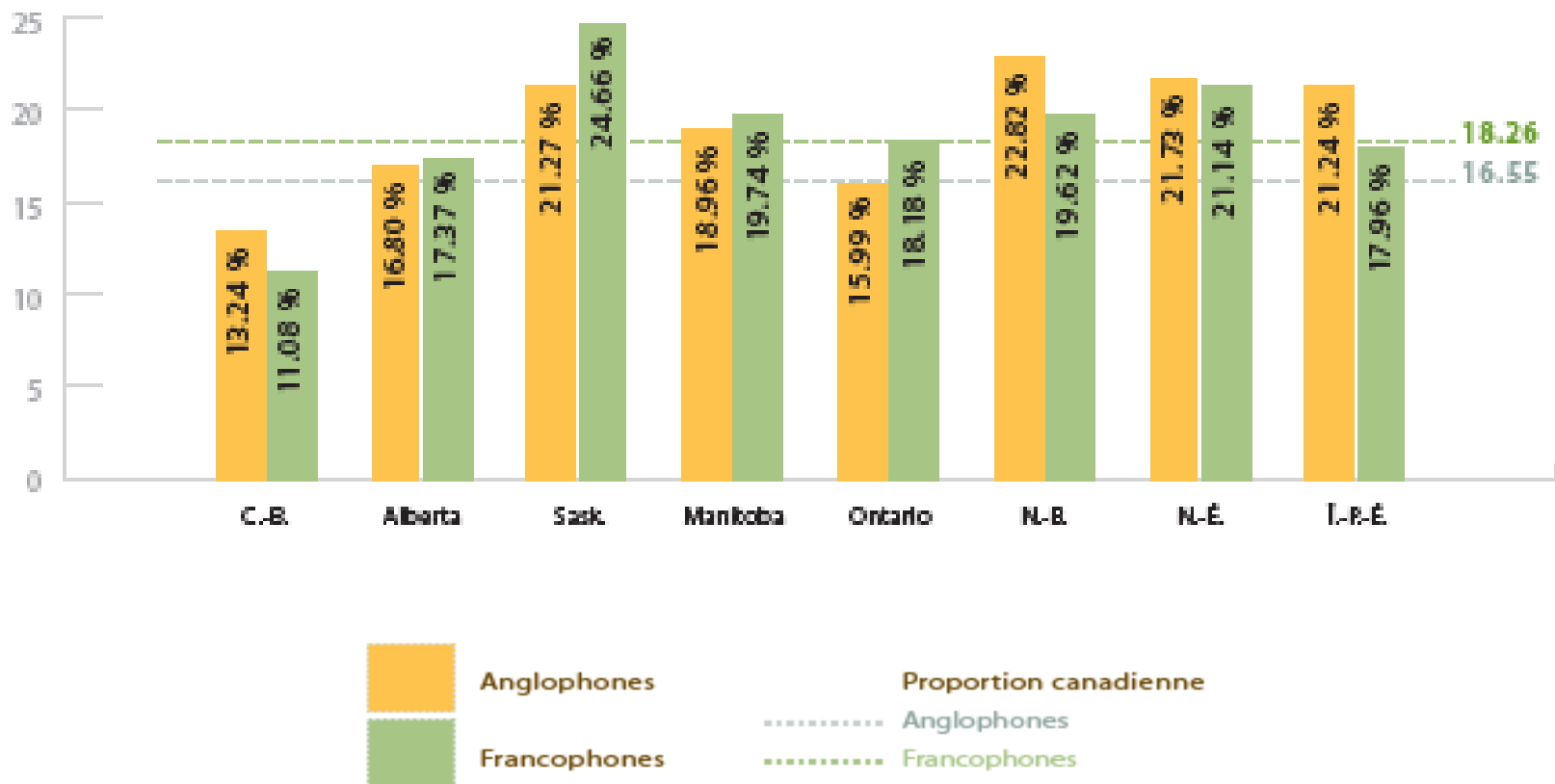
# Drinking

Buveur régulier : OUI



# Obesity BMI over 30

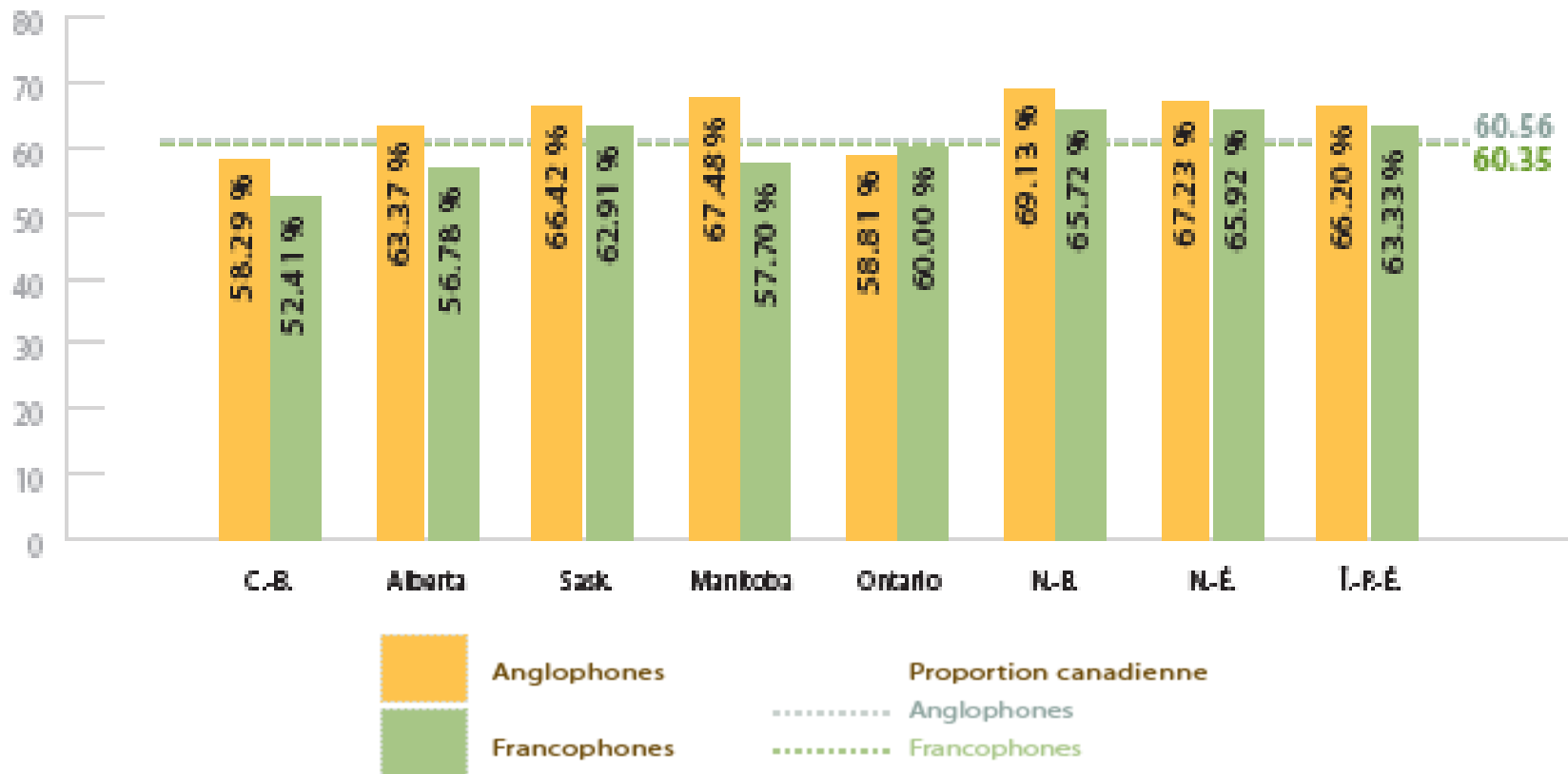
Catégorie de l'indice de masse corporelle (IMC) : 30 kg/m<sup>2</sup> et plus



# Nutrition

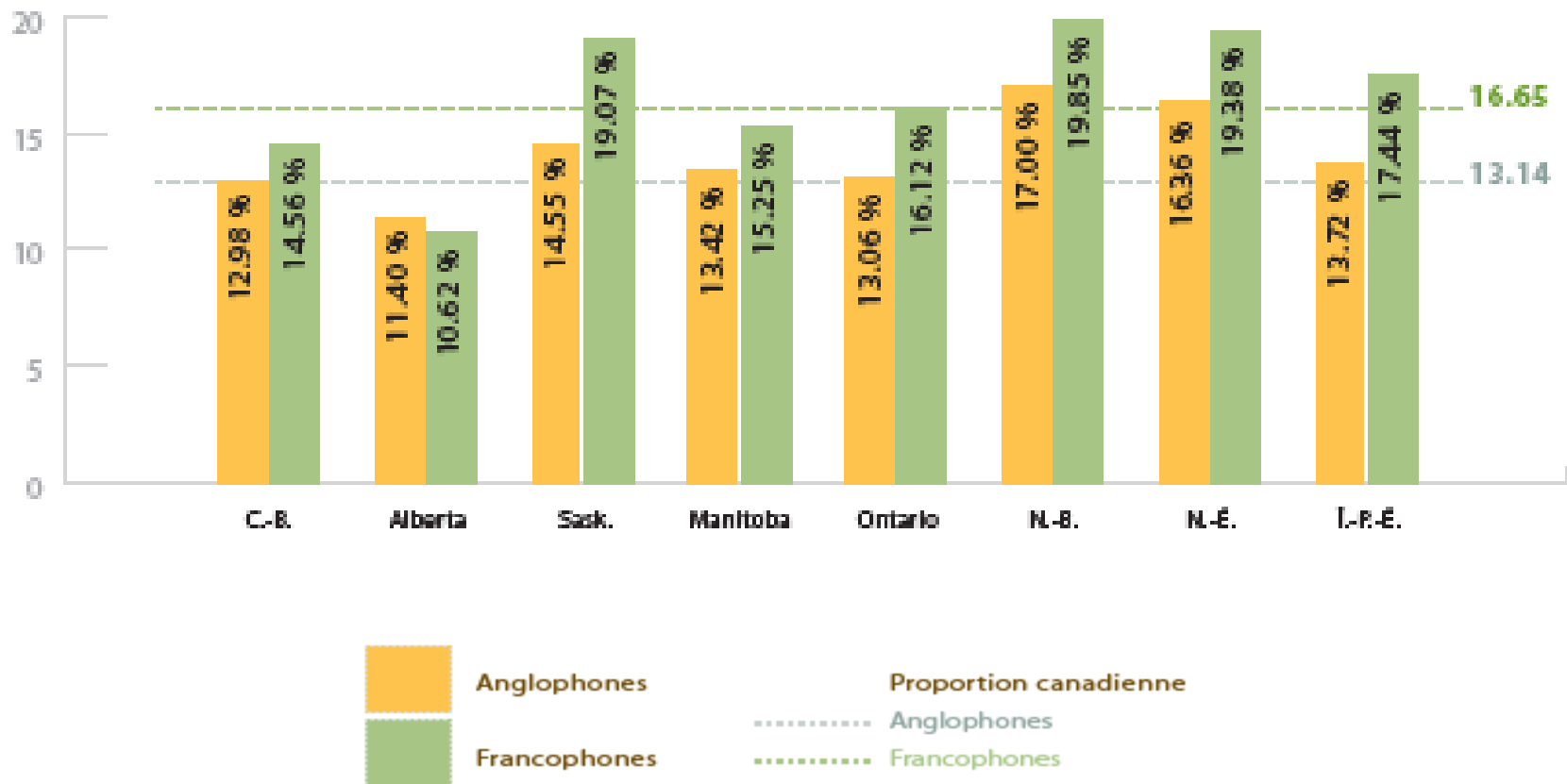
## Fruit and vegetables: at least 5 portions per day

Consommation de fruits et légumes : moins de 5 portions par jour



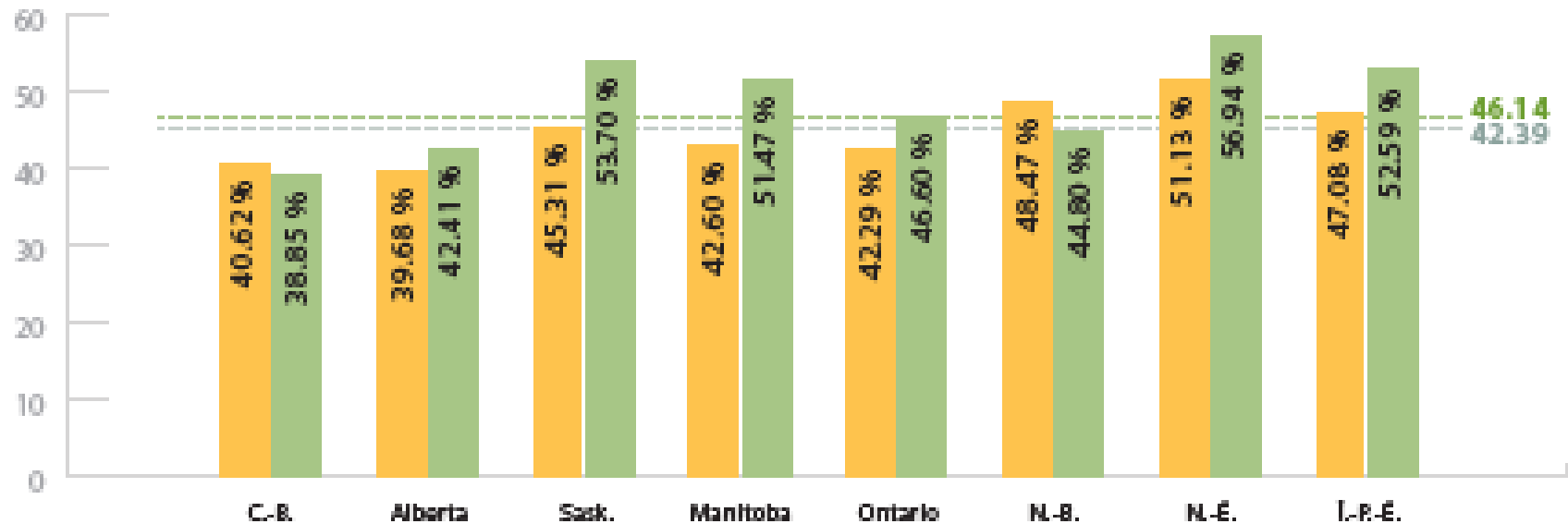
# Self reported health

Auto-évaluation de la santé : mauvaise et passable



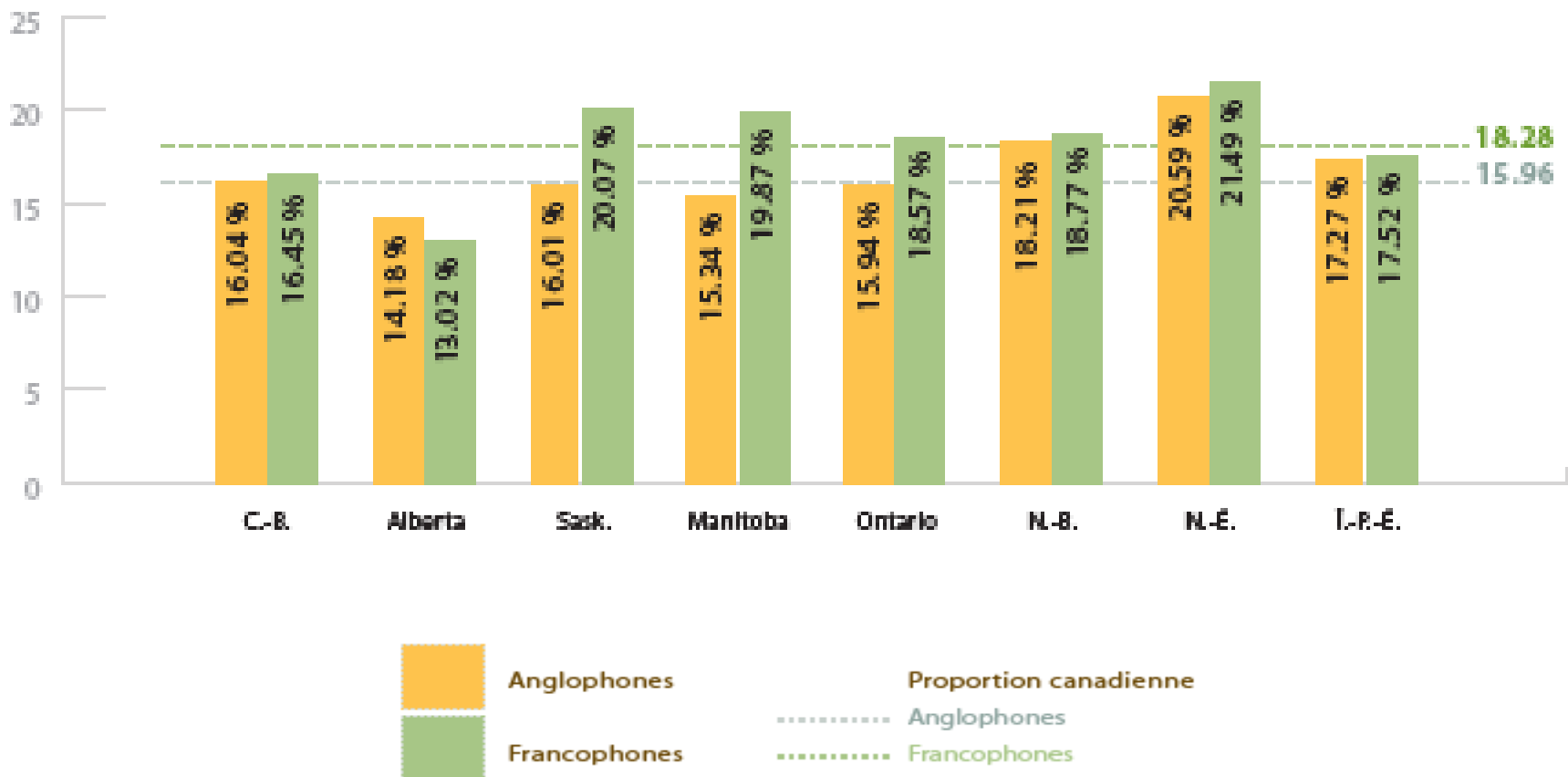
# Morbidity

Maladie : présence d'une ou plus



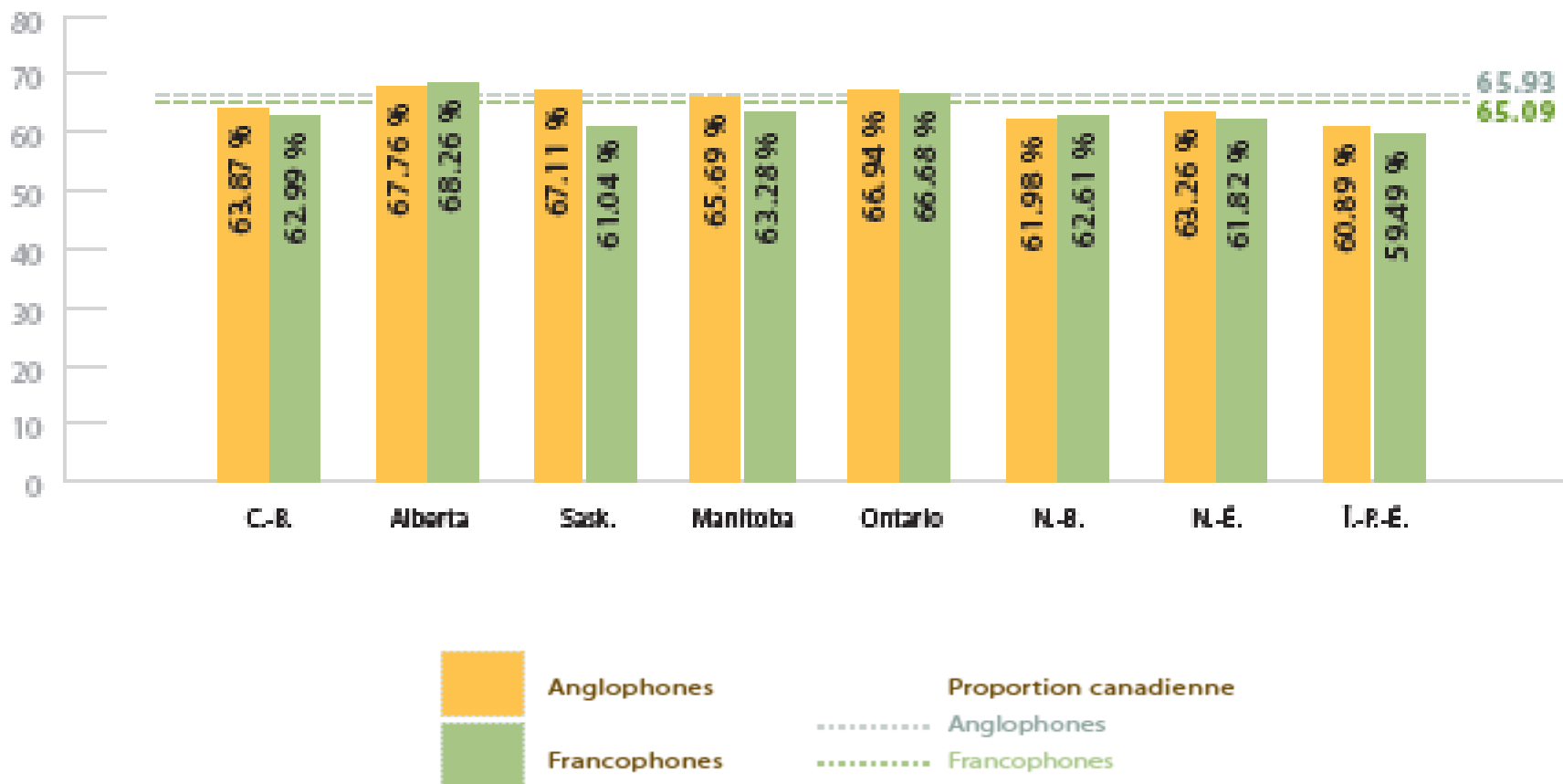
# Disability

Difficulté à accomplir une tâche : OUI



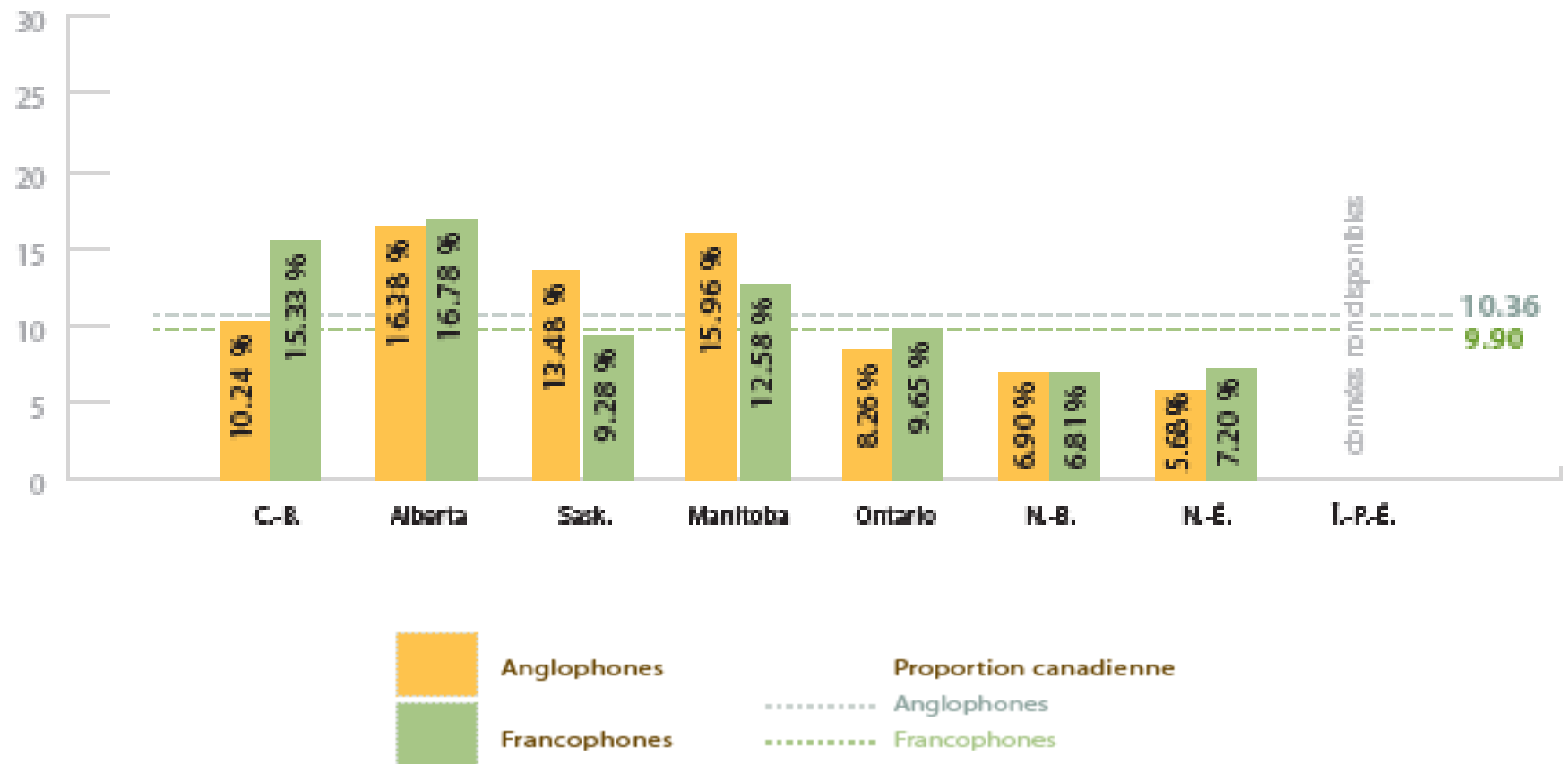
# Stress

Niveau de stress : moyen à élevé



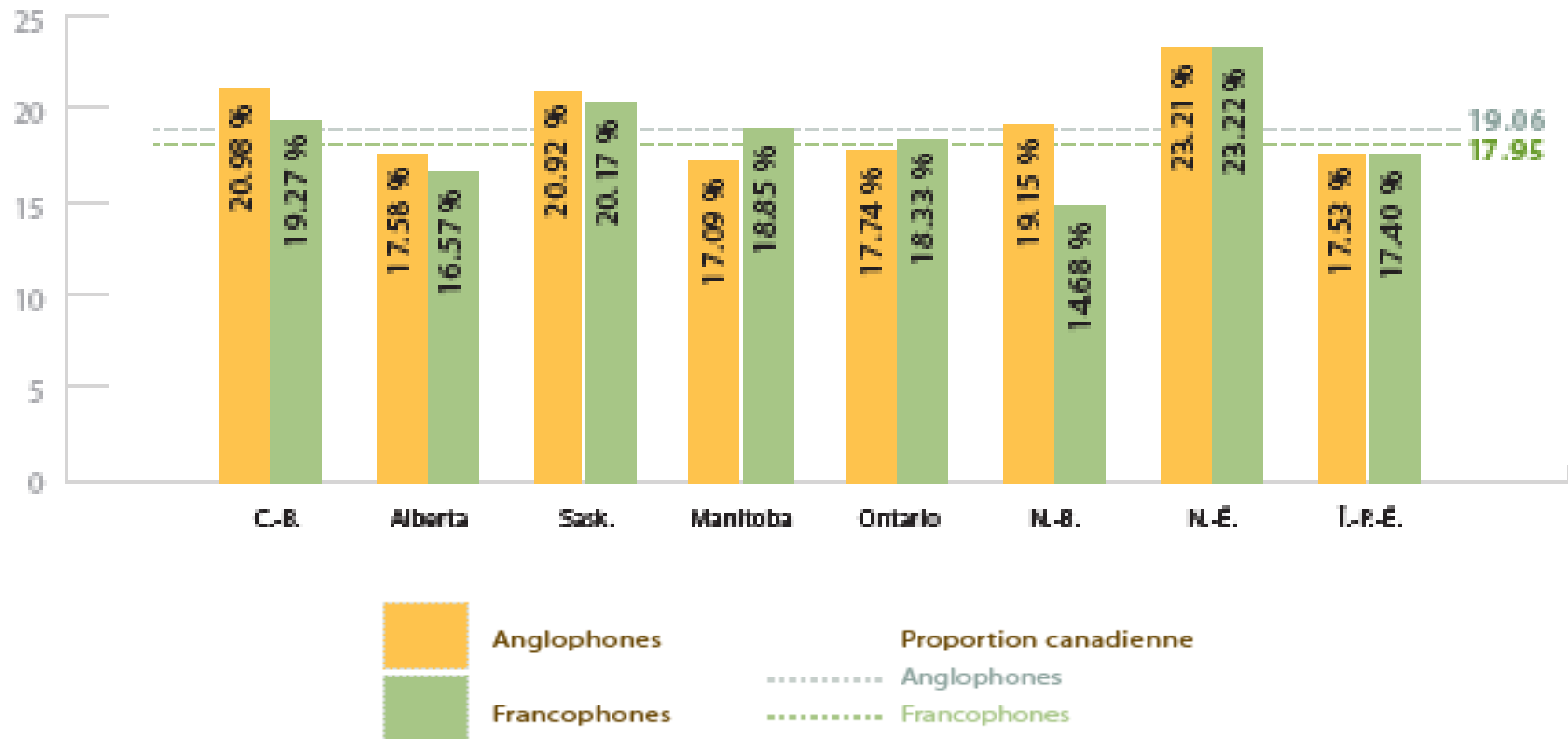
# Without a family physician

A un médecin de famille : NON



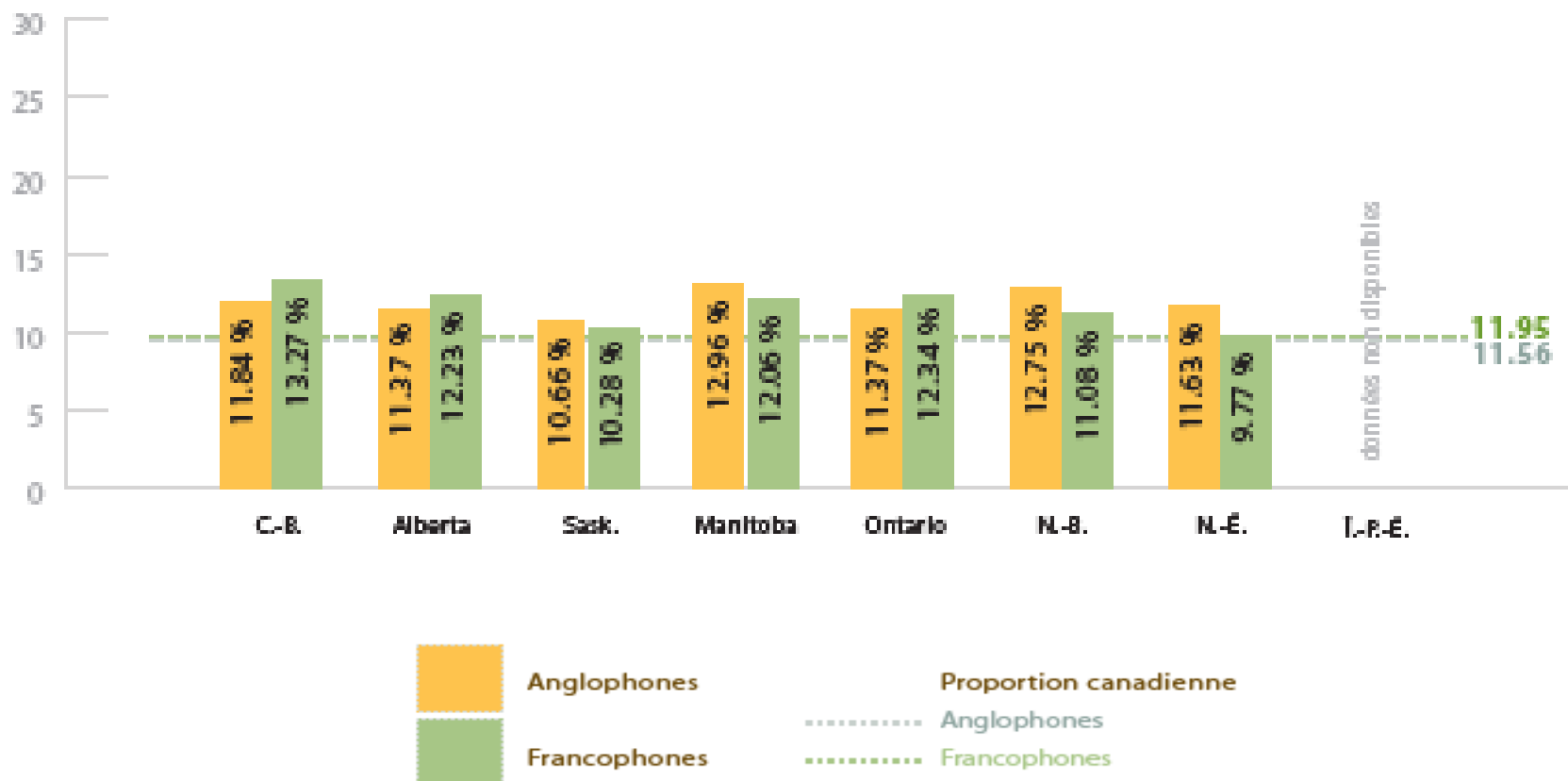
# More than 6 visits in last year

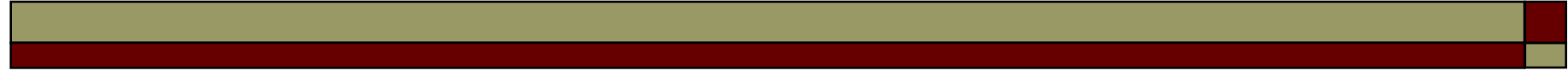
Plus de 6 consultations dans la dernière année : OUI



# Unmet needs

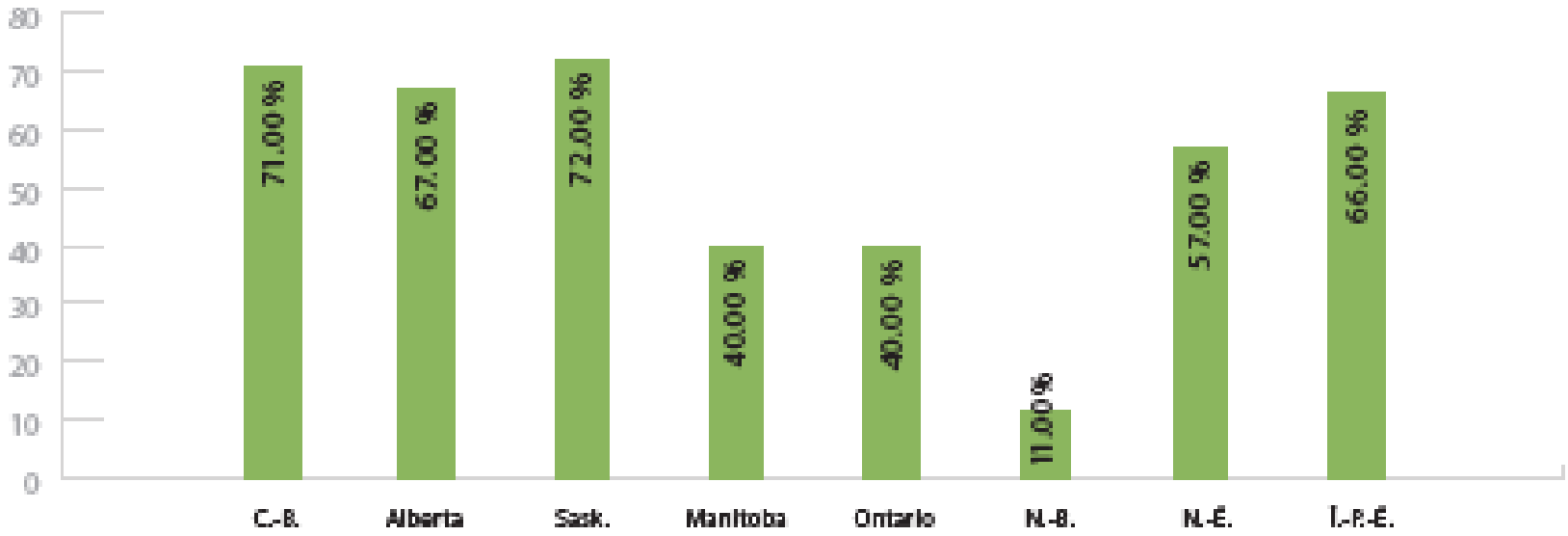
A des besoins non-comblés : OUI





# Difficulty in receiving services in French

Niveau de difficulté perçue des francophones minoritaires à obtenir des services de santé en français : Très difficile, difficile ou impossible\*



\* Les minorités prennent la parole : résultats de l'enquête sur la vitalité des minorités de langue officielle (CMLEO), Statistique Canada au catalogue no 91-548-X1P

Legend for the chart:

- Anglophones (represented by an orange square)
- Francophones (represented by a green square)
- Proportion canadienne (represented by a dotted line)
- Anglophones (represented by a blue dotted line)
- Francophones (represented by a green dotted line)

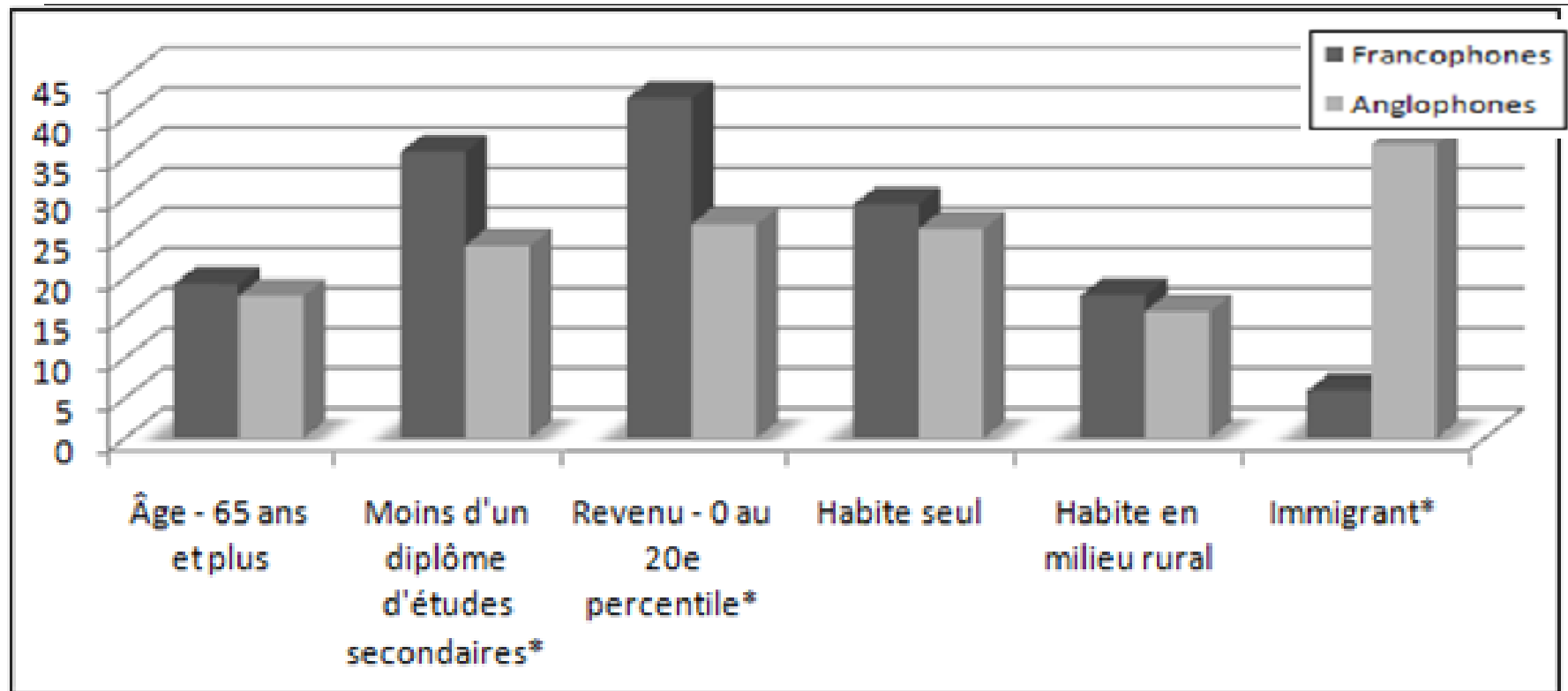
# Study in a French speaking elderly population

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V. Bourbonnais, L. Bouchard

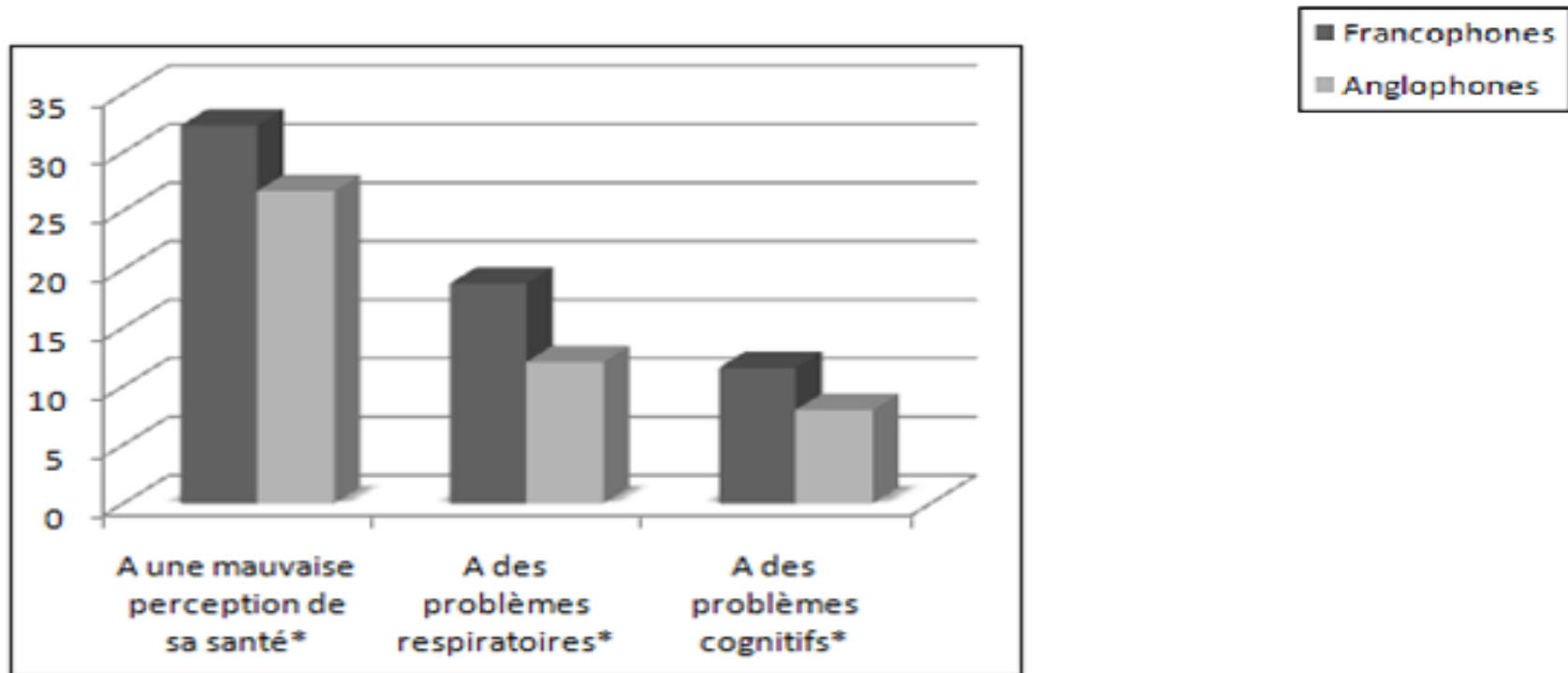
Mh Chomienne

# Socio economic status



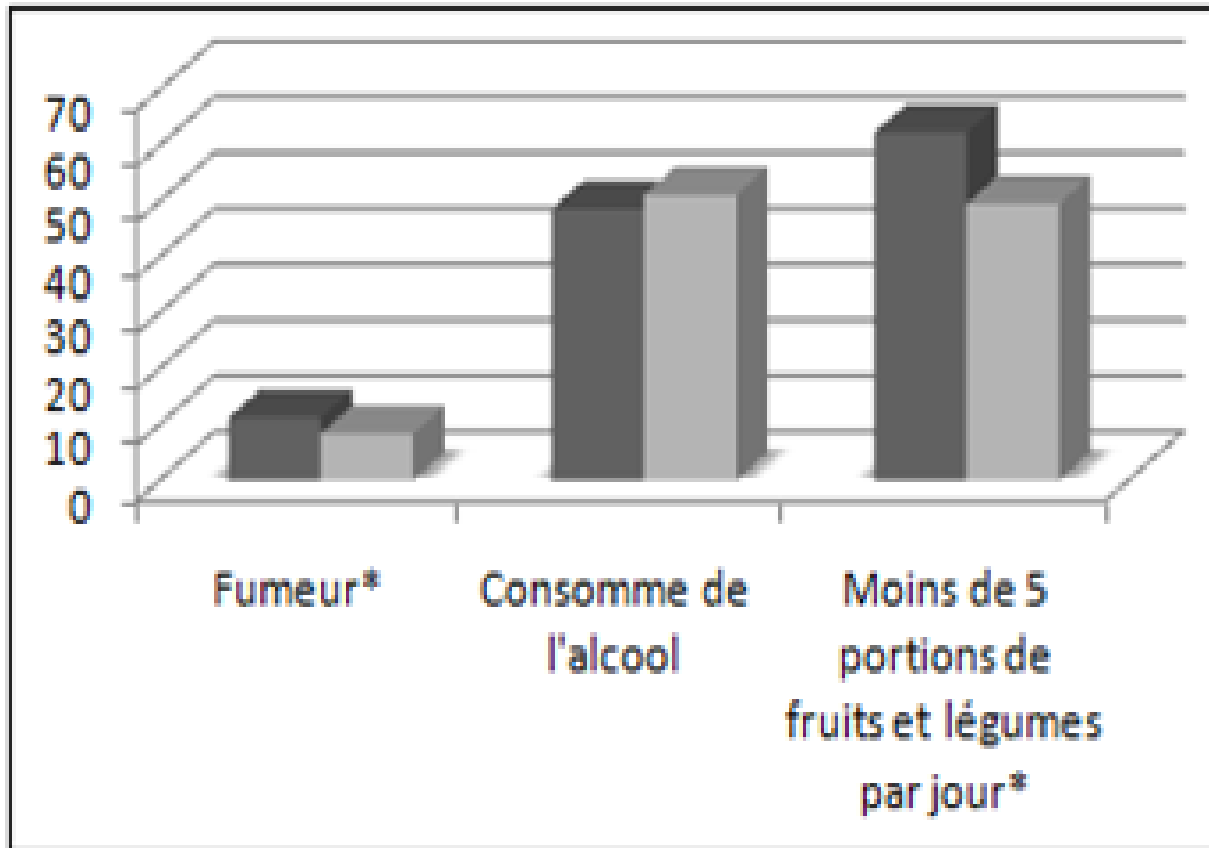
\*Variable significative où la valeur de  $p = < 0.05$

# Health status



\*Variable significative où la valeur de  $p = < 0.05$

# Life styles



■ Francophones  
■ Anglophones

# Minority situation as a health determinant

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Healthcare Policy Vol.4 No.4, 2009



# Research question

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- Does living in a minority context affect health?
- Setting: Canada's francophone minority



# Study

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## □ Study Team

- Louise Bouchard, sociologist IPH
- Jean-Marie Berthelot, Health Analysis and Measurement Group, Stats Canada
- Isabelle Gaboury, statistician, Anne Gilbert, geographer, IPH
- Lise Dubois, nutritionist, IPH



# Data

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- Data source
  - Canadian Community Health Survey (CCHS)
  - aggregated data of 2001 and 2003 (cycle 1.1 and cycle 2.1)
- Population
  - Adults over 25 yrs old
  - 71 514 men
  - 86 649 women

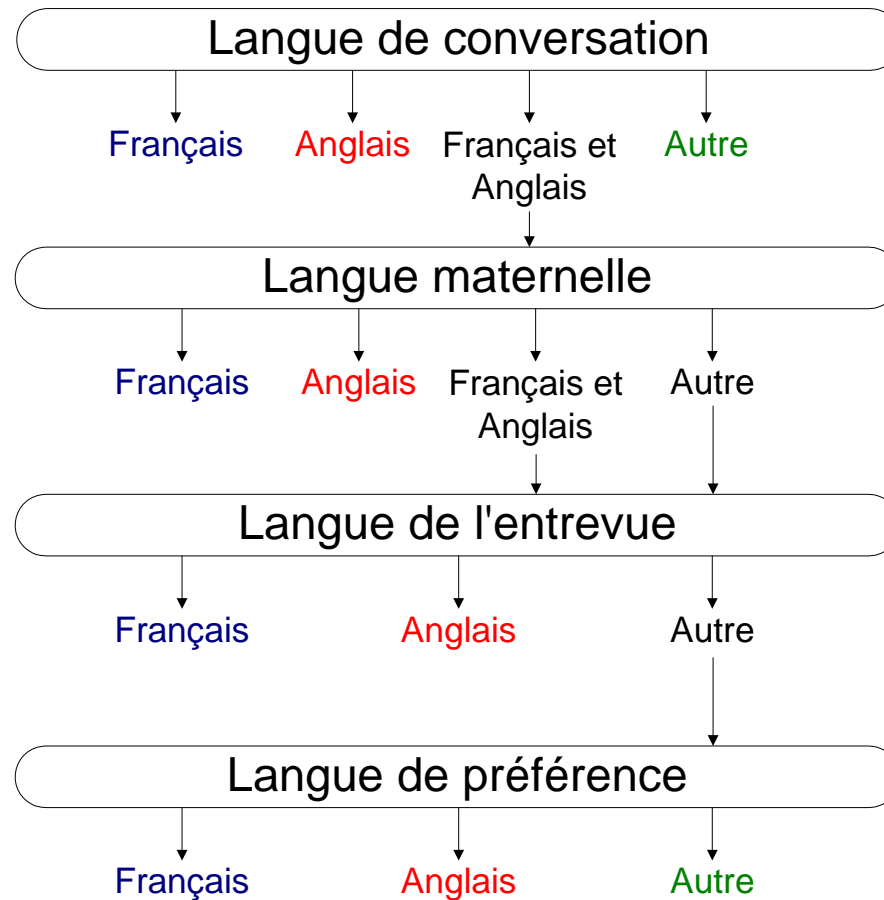


# Language groups

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- Language groups were defined according to the questions in the CCHS
  - Mother tongue
  - Official language understood and spoken
  - Preferred language
- We had 3 language groups
- Francophones/anglophones/allophones

# Definition of linguistic groups





# Outcomes

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- Main outcome
  - Self-reported health
- Health determinant factors were grouped in 4 blocks
  - Lifestyle: physical activity, BMI, nutrition, alcohol and tobacco use
  - Socio-economic status : income, education, employment status
  - Environmental context (urban/rural, province, marital status)
  - Disability (stress, morbidity)



# Analysis

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- Men and women were analyzed separately
- Self reported health was dichotomized as
  - good (excellent, very good and good)
  - bad (poor and bad)
- Multivariate logistic regression analysis to identify factors predictive of self reported health
- The analysis were carried out in the Francophone and Anglophone groups



# Analysis

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- ❑ Multivariate logistic regression models were used to examine the relationship between being a francophone in a minority situation and self-perceived health among men and women.
- ❑ The models were adjusted for a number of socio-cultural variables related to the lifestyle, medical condition and social status of the individuals.
- ❑ A Bootstrap technique was used to estimate standard error.



# Conceptual framework

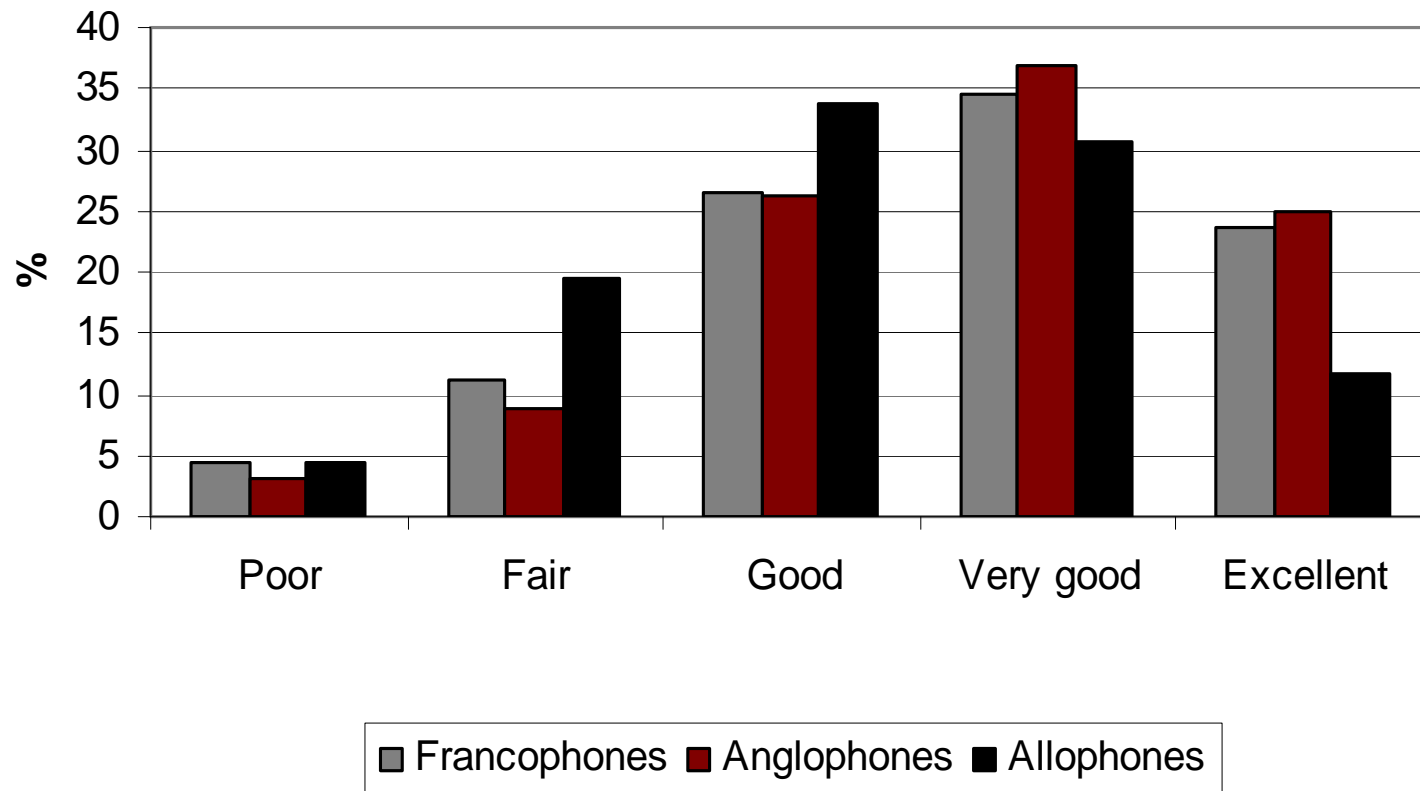
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- In order to evaluate the relationship between living in a minority situation and self-reported health, four groups of variables were successively introduced in the base model containing information on the minority situation adjusted for age:
- Group 1: lifestyle factors (exercise, smoking, BMI...);
- Group 2: socio-demographic ( education/income)
- Group 3: contextual factors (urban/rural environment, household and province)
- Group 4: disability as measured by morbidity and stress.

# Results

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# Distribution of self-reported health

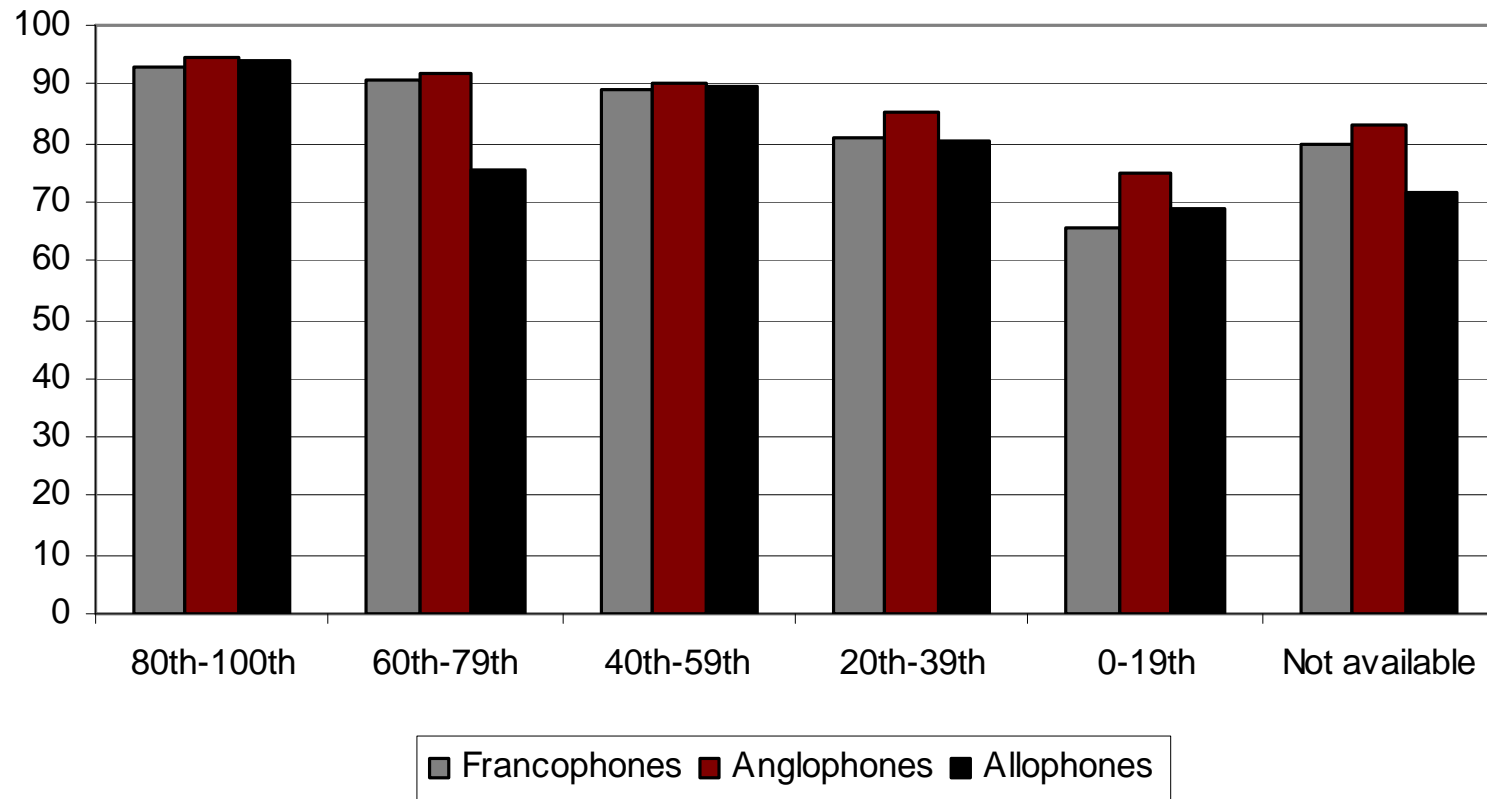


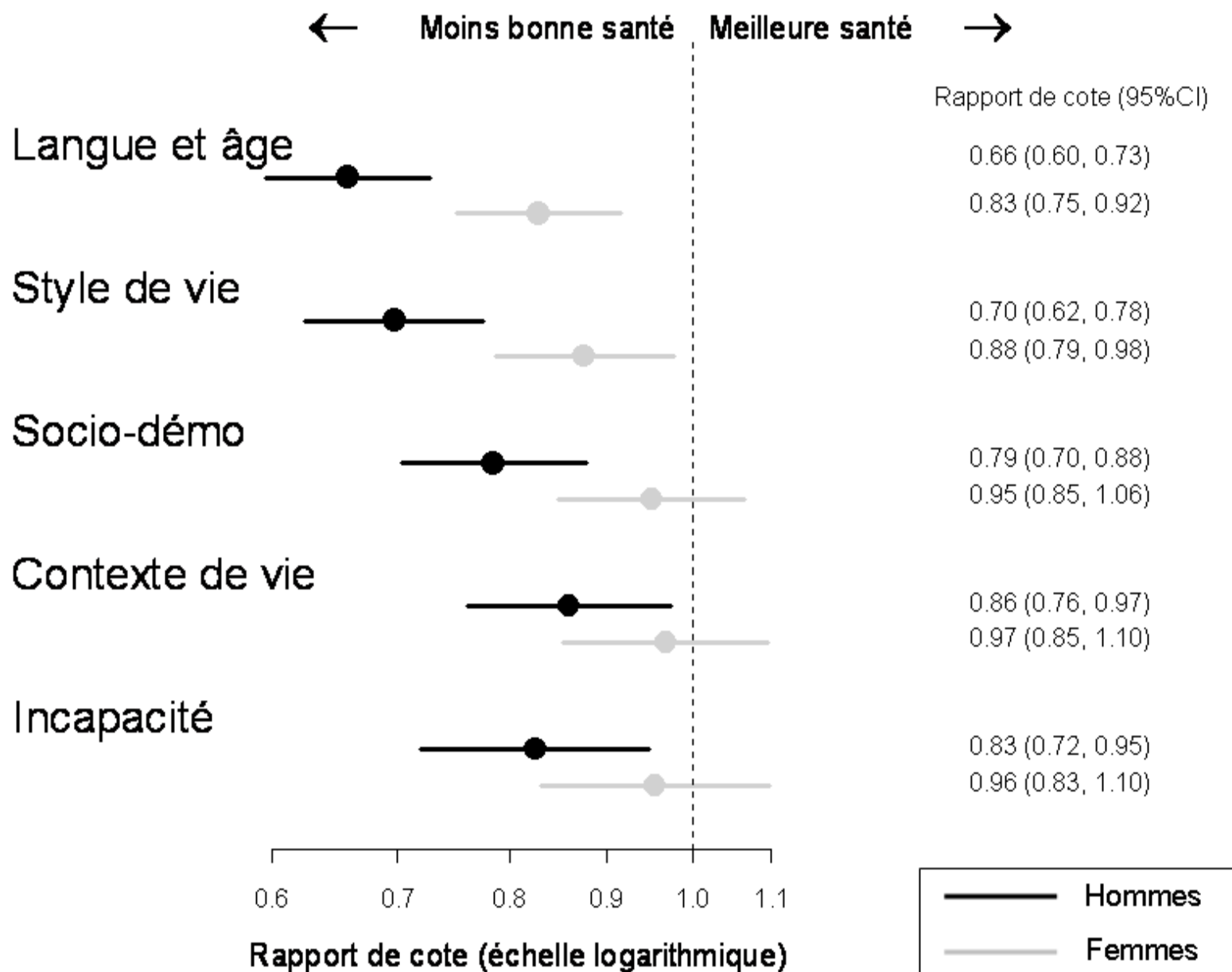
# Poor to fair health status

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	Francophones %	Anglophones %
Quebec	12.44	<b>14.11</b>
Outside of Quebec	<b>17.64</b>	13.26

# Distribution by income of reported “good health”





# Results

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- Taking into consideration age structure differences, francophones living in minority situations are more likely to report poorer health than anglophones in majority situations. This was true for males (OR **0.66**; 95%CI 0.60, 0.37) as well as females (OR **0.83**; 95%CI 0.75, 0.92):
- For women, this discrepancy decreased following an adjustment for the lifestyle variables (OR **0.87**; 95%CI 0.78, 0.97) and disappeared completely after an adjustment for income and education (OR **0.96**; 95%CI 0.86, 1.07);
- For men, there persisted a discrepancy after adjustment for all the variables considered in the conceptual framework (OR **0.82**; 95%CI 0.71, 0.94).



# Discussion

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- Our conceptual starting point is the Canadian context of official languages, which promotes the full recognition and use of French and English everywhere in Canada, regardless of the minority/majority relationship in which language communities evolve.
- Our hypothesis was that this relationship translates into a social inequity and unequal access to resources which, when combined with the other social determinants of health (age, gender, socio-economic status, education, literacy and immigration) contribute *de facto* to disparities in health.



# Discussion

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- These results shed significant light on a critical fact that has never been explored in the Canadian context of official languages.
- As has been amply documented in the literature on this subject, age, gender and income are the key determinants of health; however, the impact of living in a minority situation has never, until now, been documented.



# Discussion

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- These findings, combined with observations and initial studies confirming the existence of a health differential that negatively affects francophone minority communities, highlight the importance of giving further consideration to and gaining a better understanding of all the determinants of health.



# Conclusion

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- This first Canada-wide analysis sheds relevant light on the health of Francophones living in minority situations by documenting the negative correlation between living in a minority situation and self-reported health.
- These findings also stress the increasing importance of conducting contextual and ecological analyses of health in order to better understand the interactions between local life circumstances and environments, and health.



# Next steps

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- Meeting on data linkages ( Oct 2009)
- Applied Health Research Network Initiative (MOHLTC)



# Questions?

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## Contacts

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