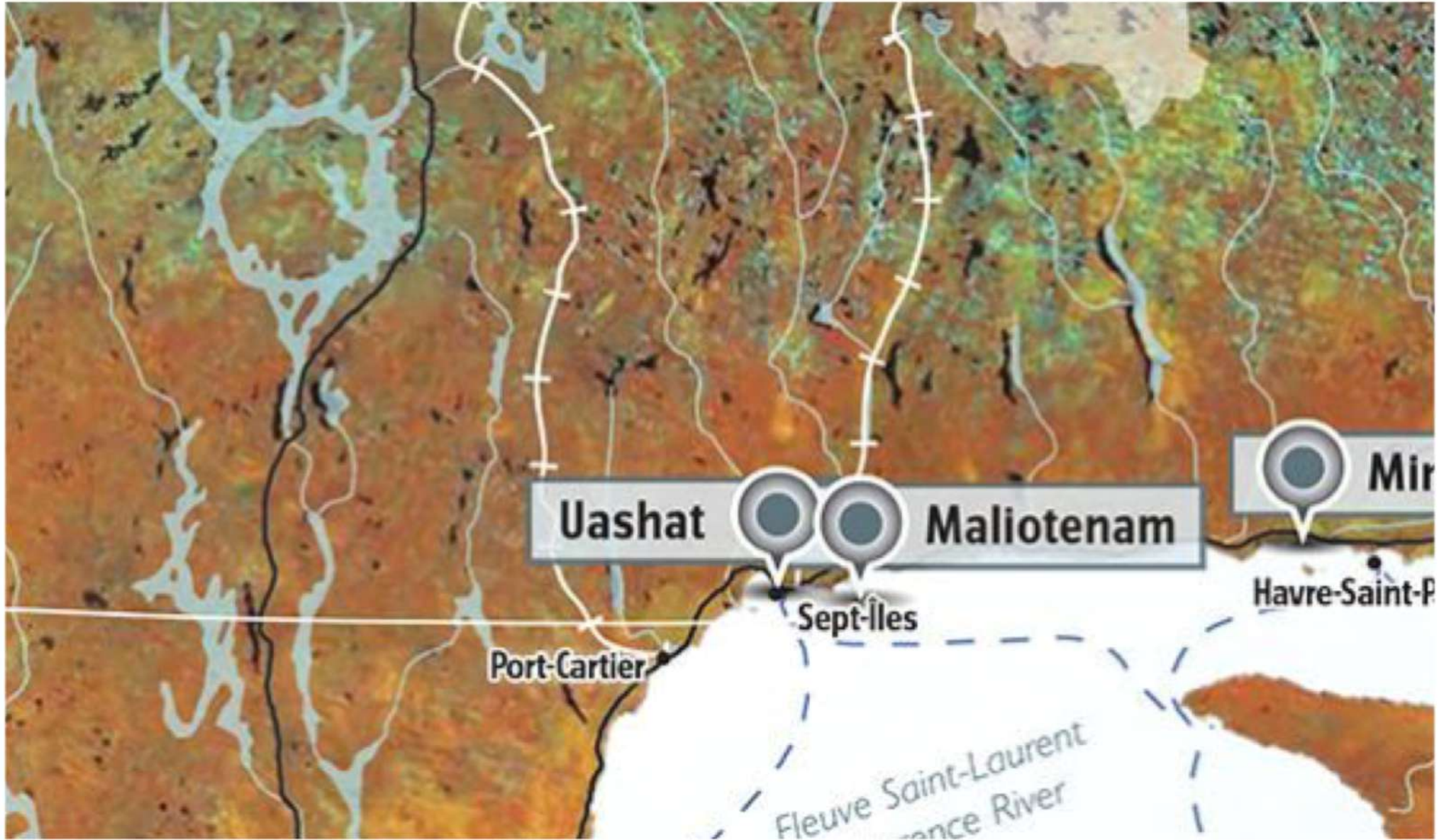


# Disability-adjusted Life Expectancy of Aboriginal Canadians

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UNIVERSITÉ DE MONTRÉAL

# Les Nations



# Disability-adjusted **Life** **Expectancy** of Aboriginal Canadians

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# Disability-adjusted Life Expectancy of Aboriginal Canadians

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# What is a disability?

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## Standard: Health Utility Index

For our research, based on 4 questions:

**Difficulty/limitation in performing daily activities (#1)** (Difficulty hearing, seeing, learning, climbing stairs...)

**Having a condition that reduces the possibility to engage in activities at home (#2), at work or at school (#3) or in other activities (#4)**

# Disability-adjusted Life Expectancy of **Aboriginal Canadians**

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## Self-reported Aboriginal identity

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- **First Nations**
  - Living on an Indian reserve
  - Living off an Indian reserve
- **Métis**
- **Inuit**
- **Non aboriginal**

# DATA : age, identity, disability and death

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**2001**

Long form census

**Population**

19 years+

Aboriginal Identity

**Disabilities**

Daily activities

At home

At work or at school

In other activities

Died in the following 10 years?



**2011**

CanCHEC

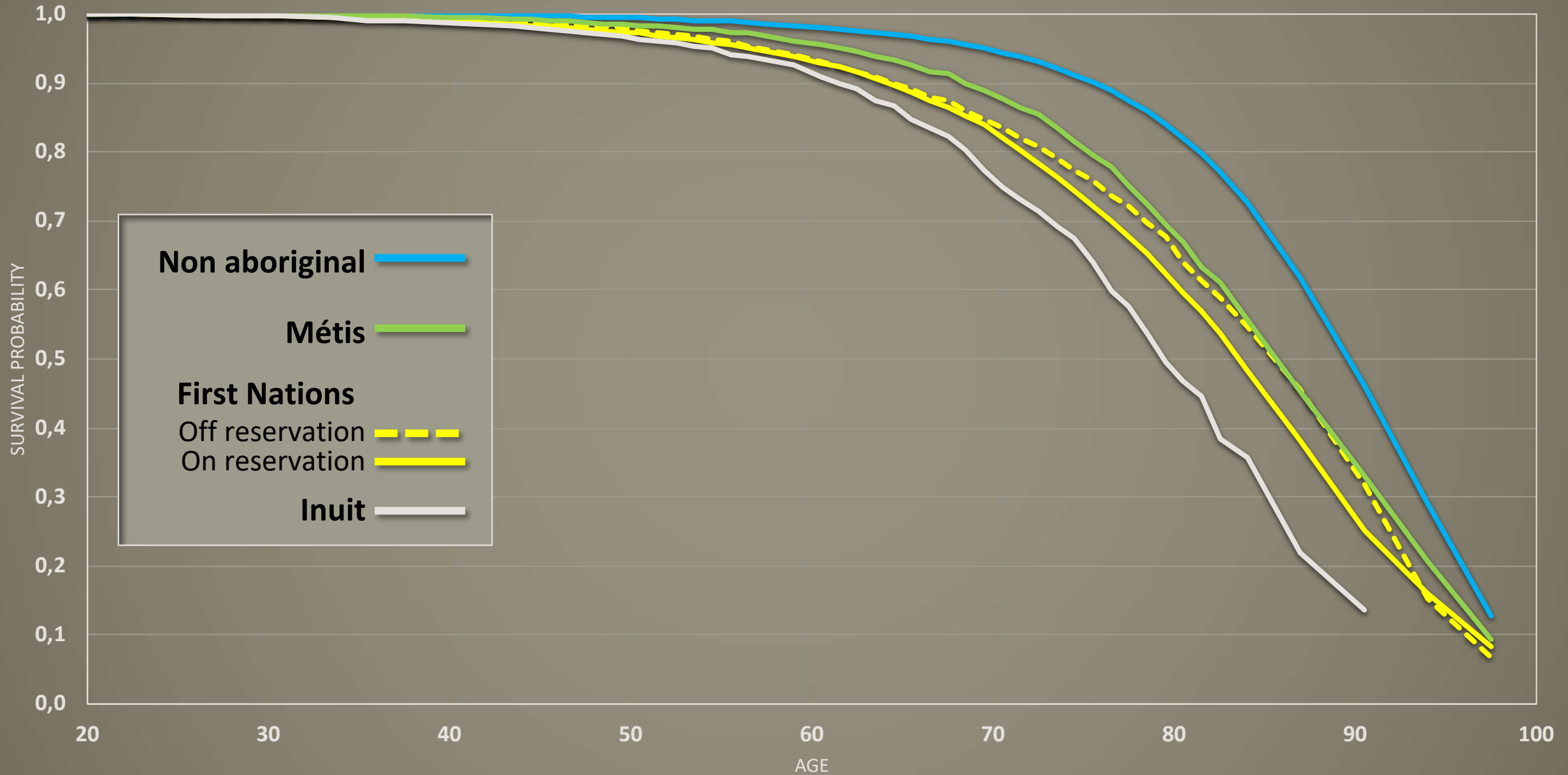


# 1<sup>st</sup> STEP

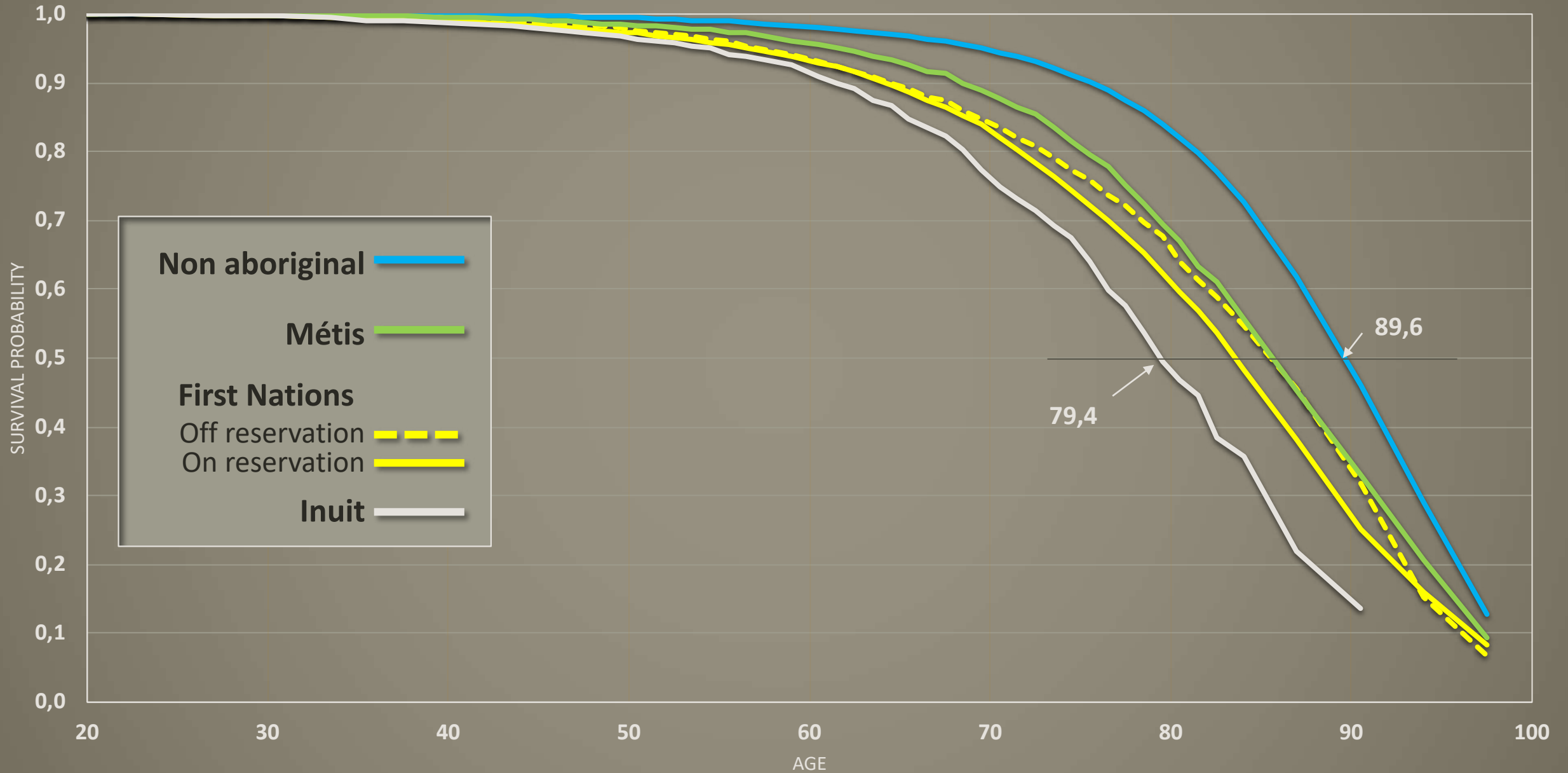
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SURVIVAL CURVES :: KAPLAN-MEIER ESTIMATORS

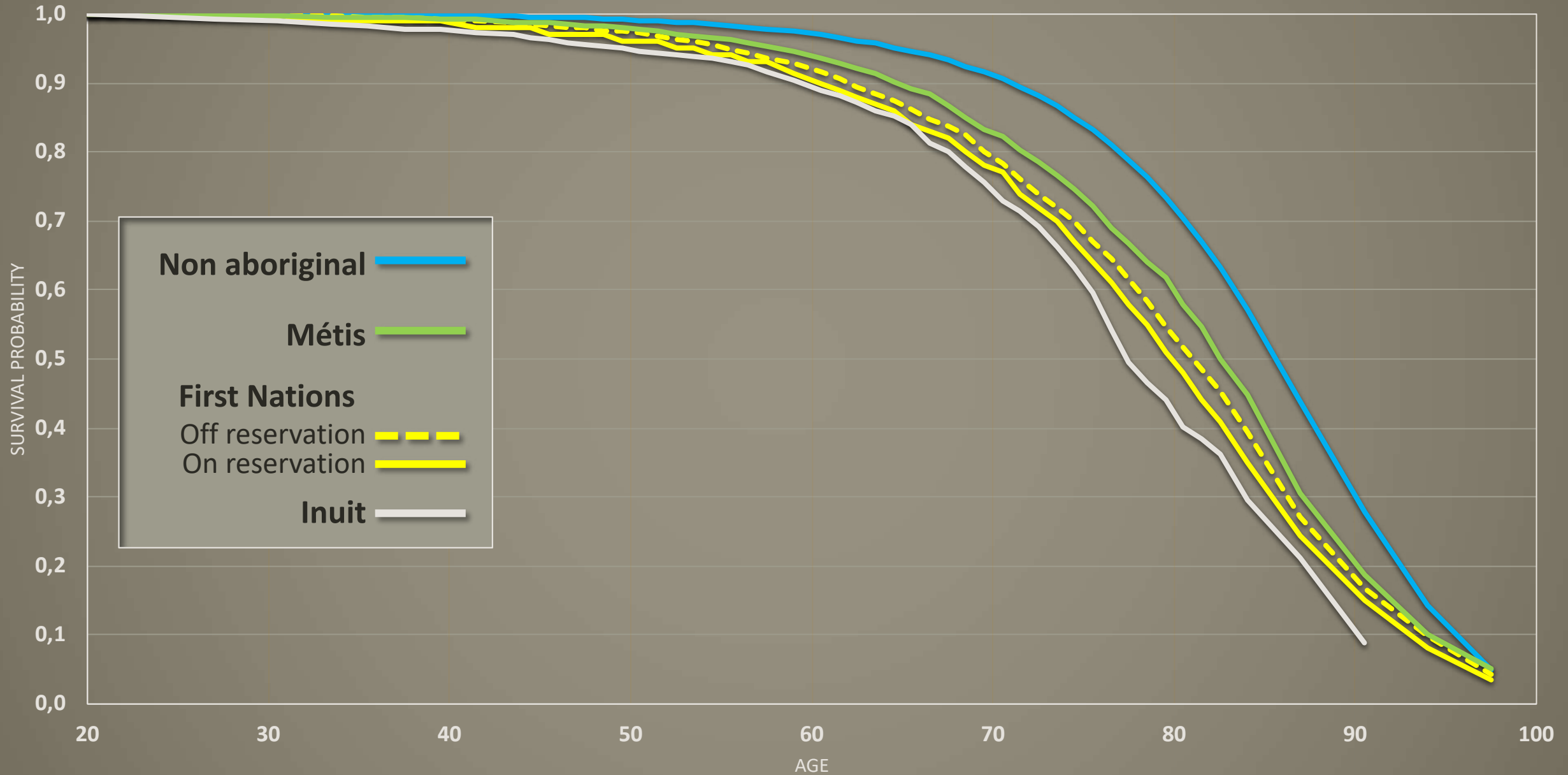
# Survival probabilities of **WOMEN** are associated to aboriginal identity



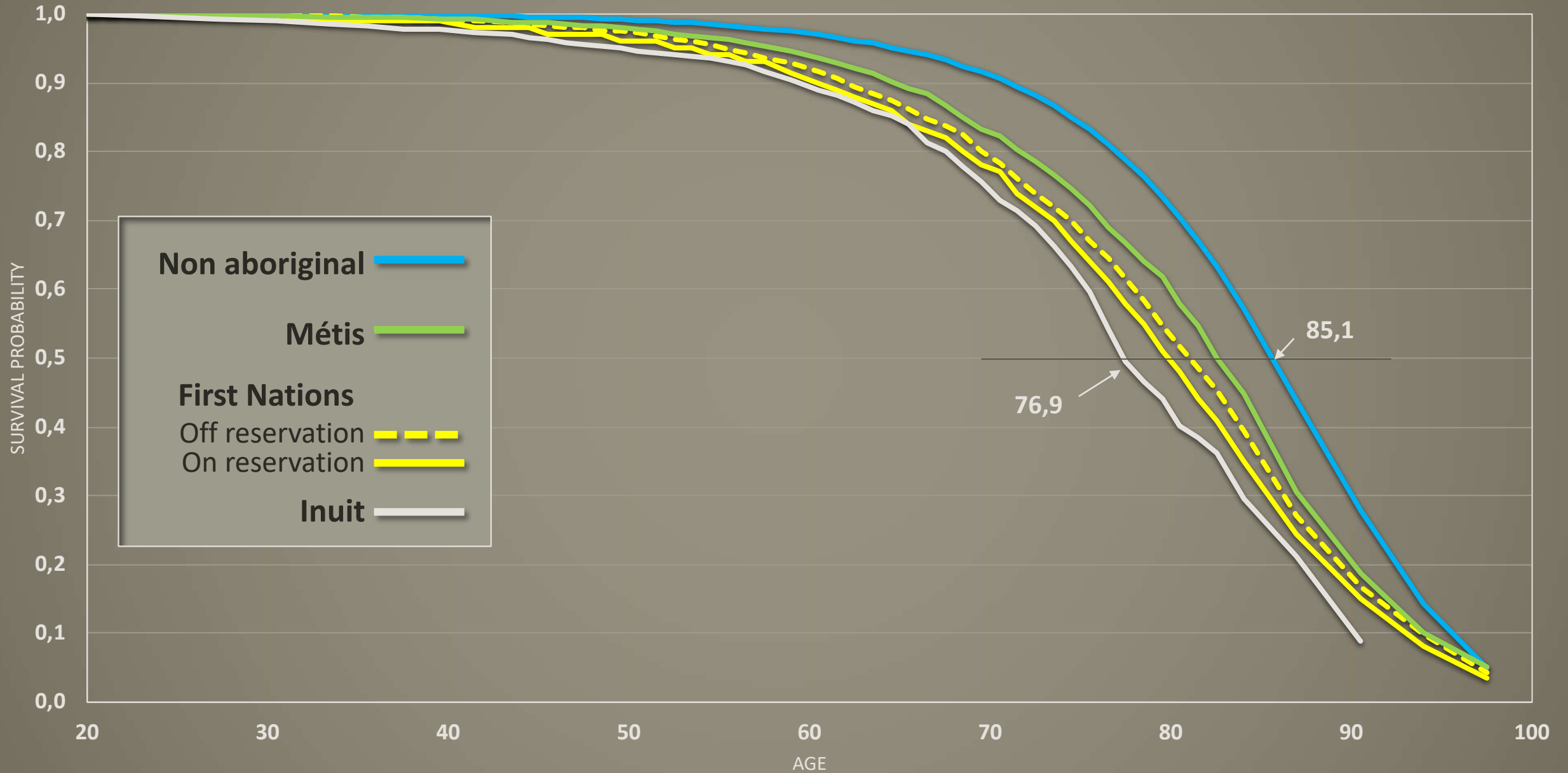
# Half the inuit women cohort is dead 10 years sooner



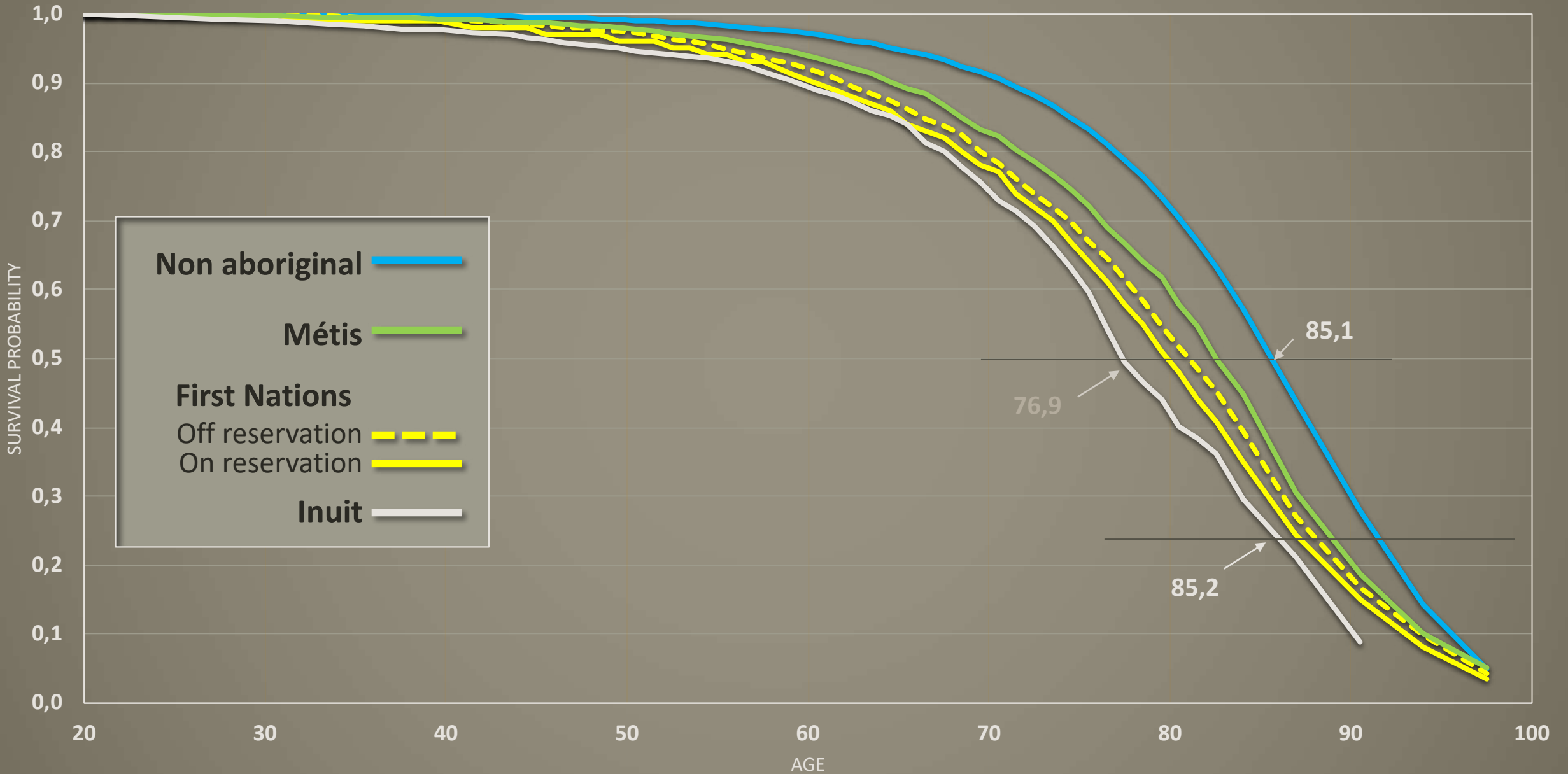
# Survival probabilities of MEN are associated to aboriginal identity



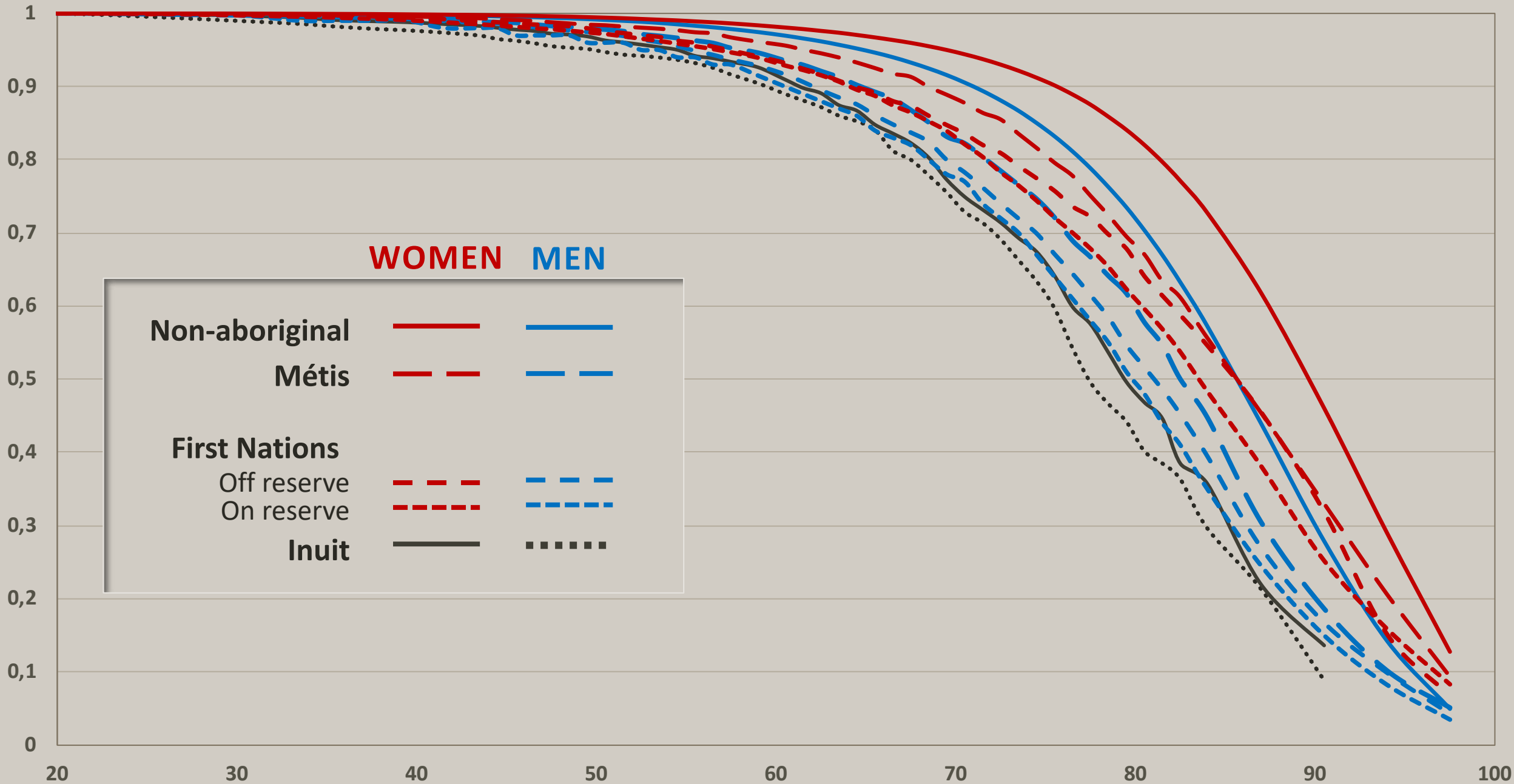
# Half the inuit men cohort is dead 8 years sooner



# At 85, half the non aboriginal men are dead but 75% of inuits are...



# Inuits apart, sex is also strongly associated to early death in aboriginal populations



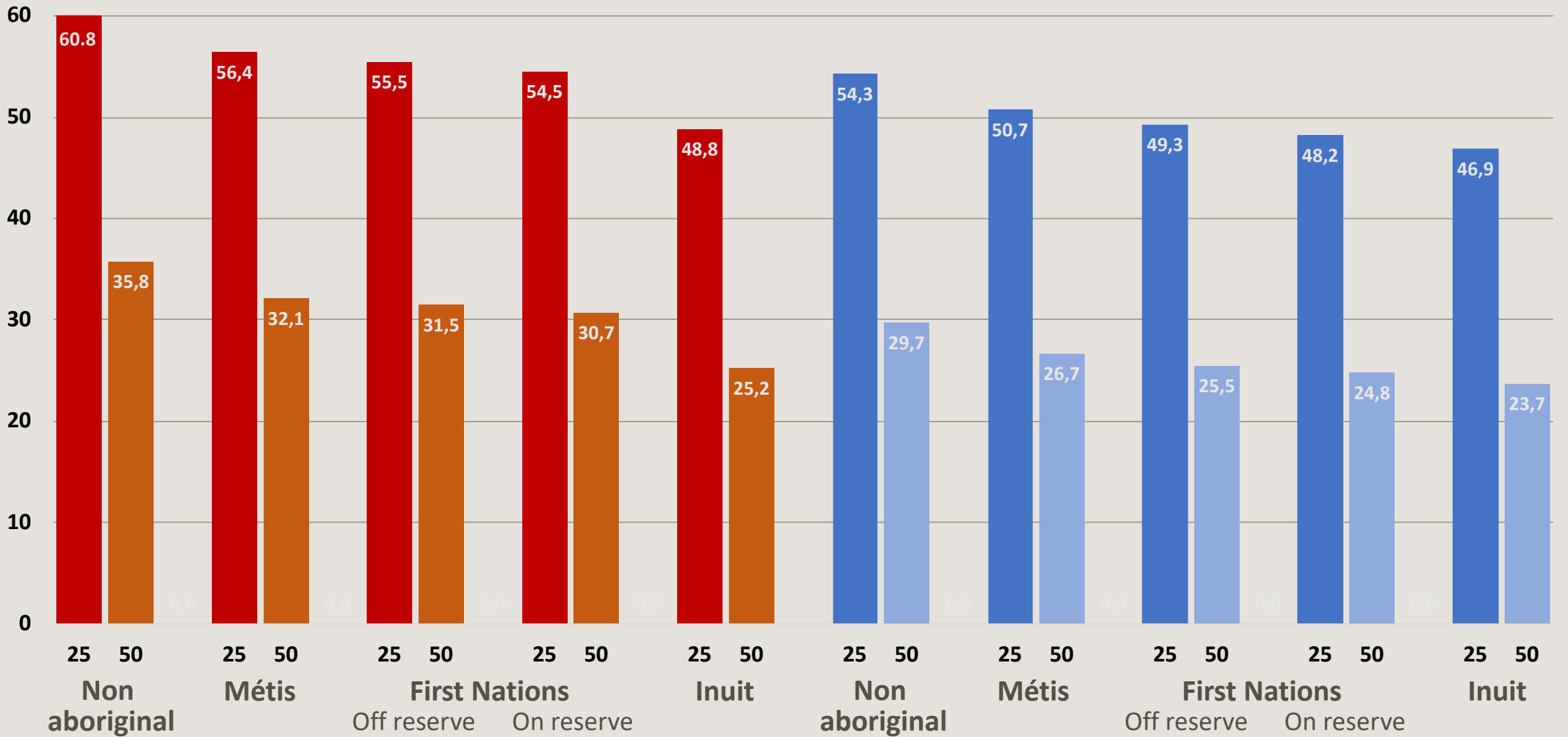
# 2<sup>nd</sup> STEP

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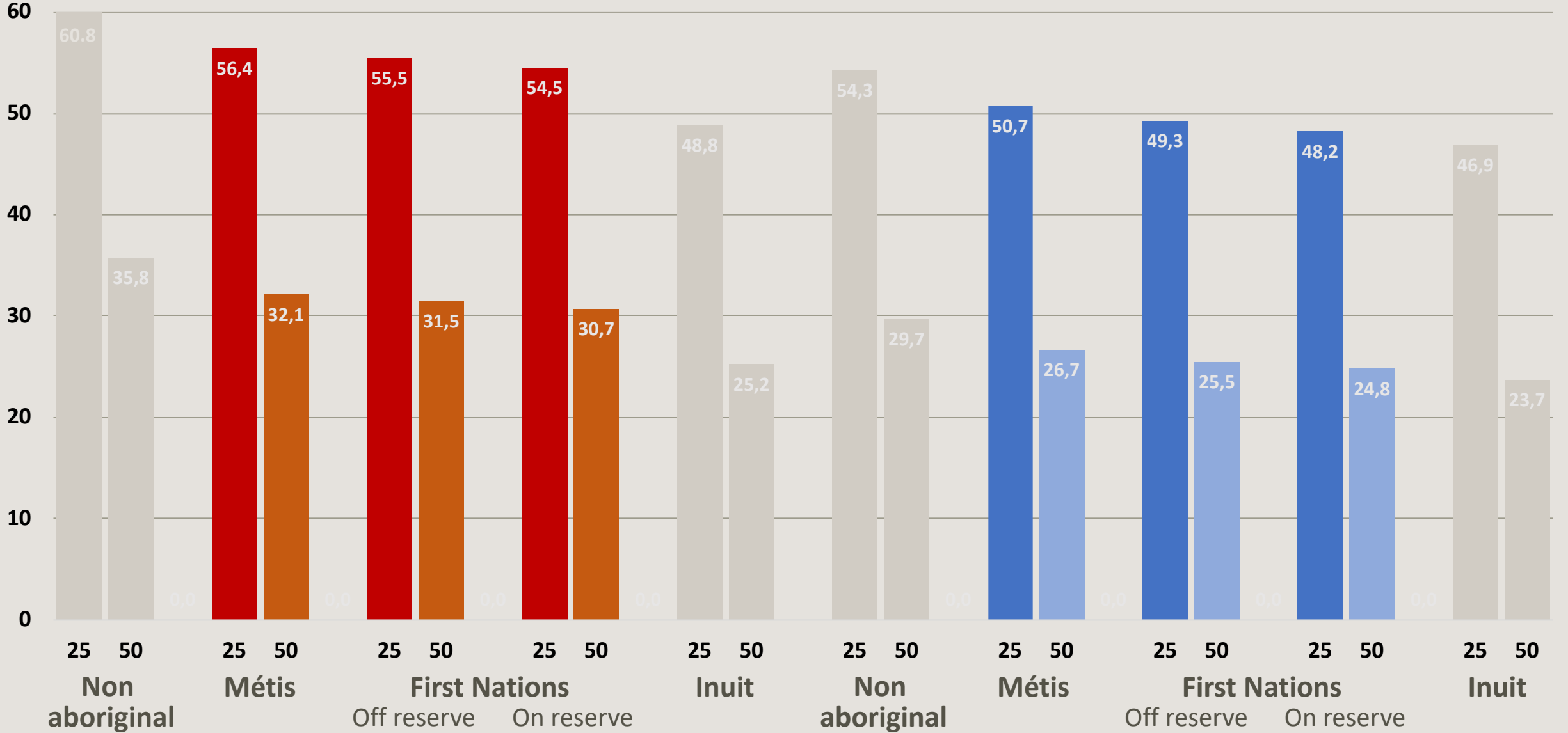
LIFE EXPECTANCIES



# Life expectancy at age 25 and 50

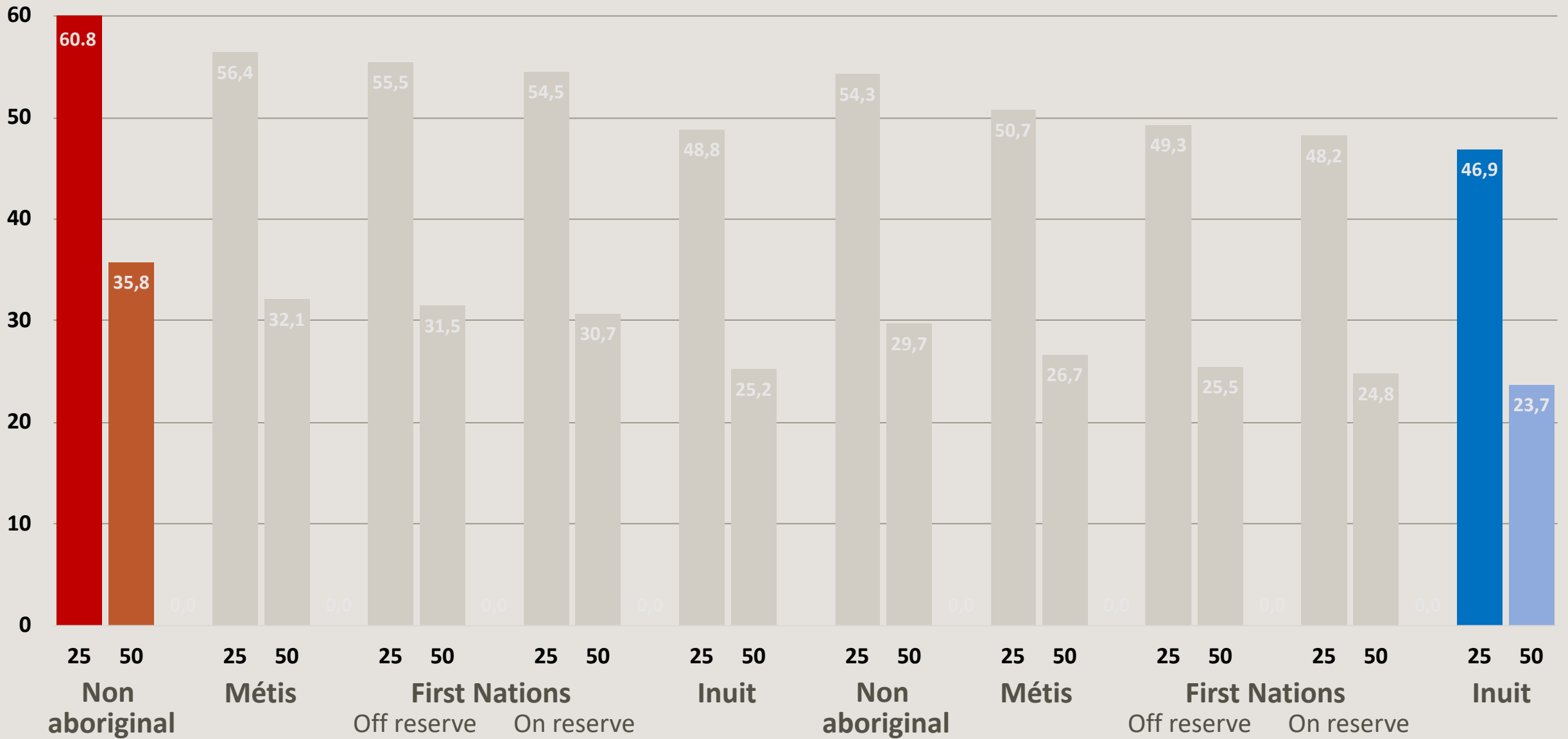


## Two years variation for Métis and First Nations

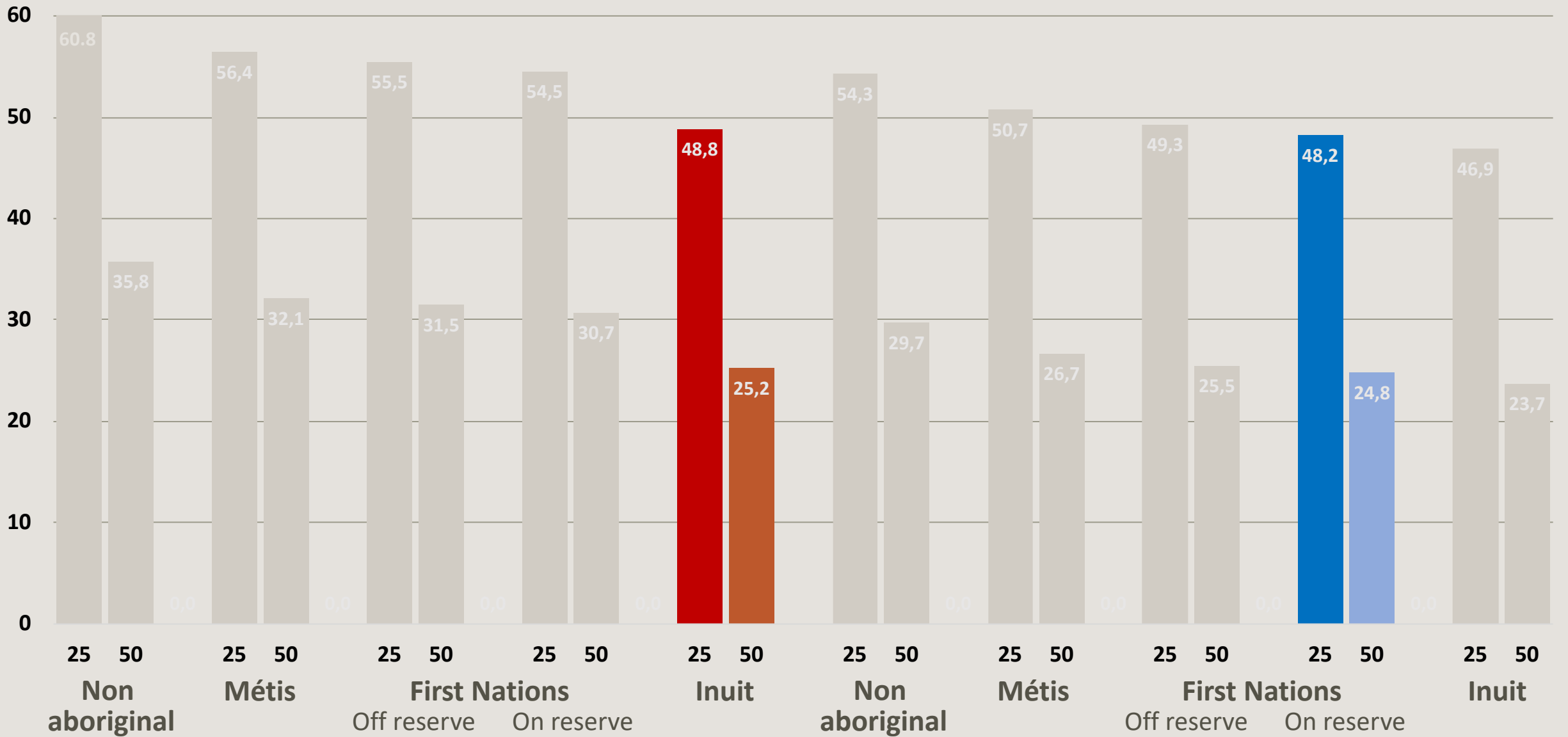


Non-aboriginal women at 25 can expect to live almost 15 years more than inuit men

Non aboriginal women at 50 can expect to live 12 years more than inuit men



# Inuit women life expectancy is greater than First Nations men living on reserve

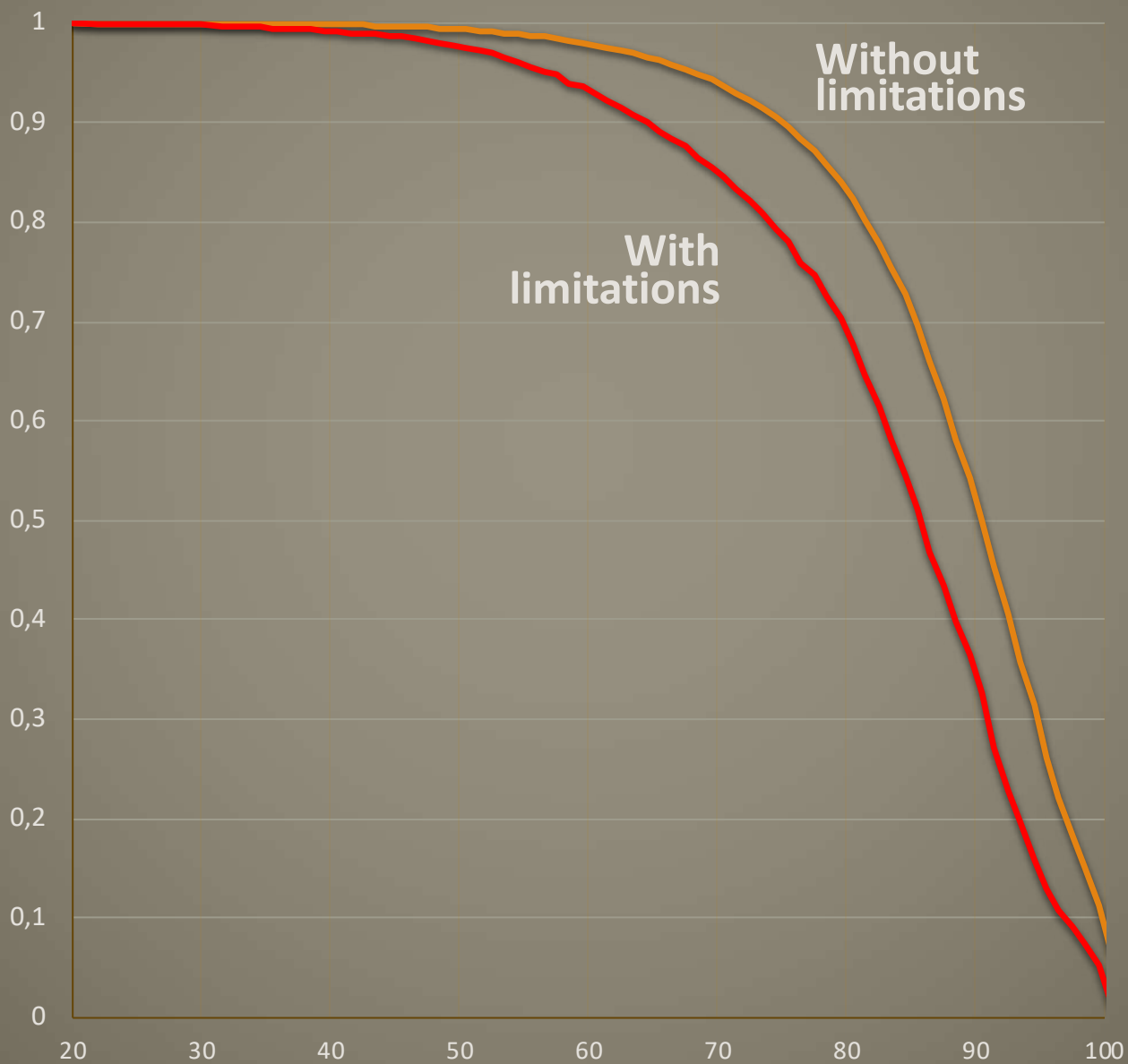


# 3<sup>rd</sup> STEP

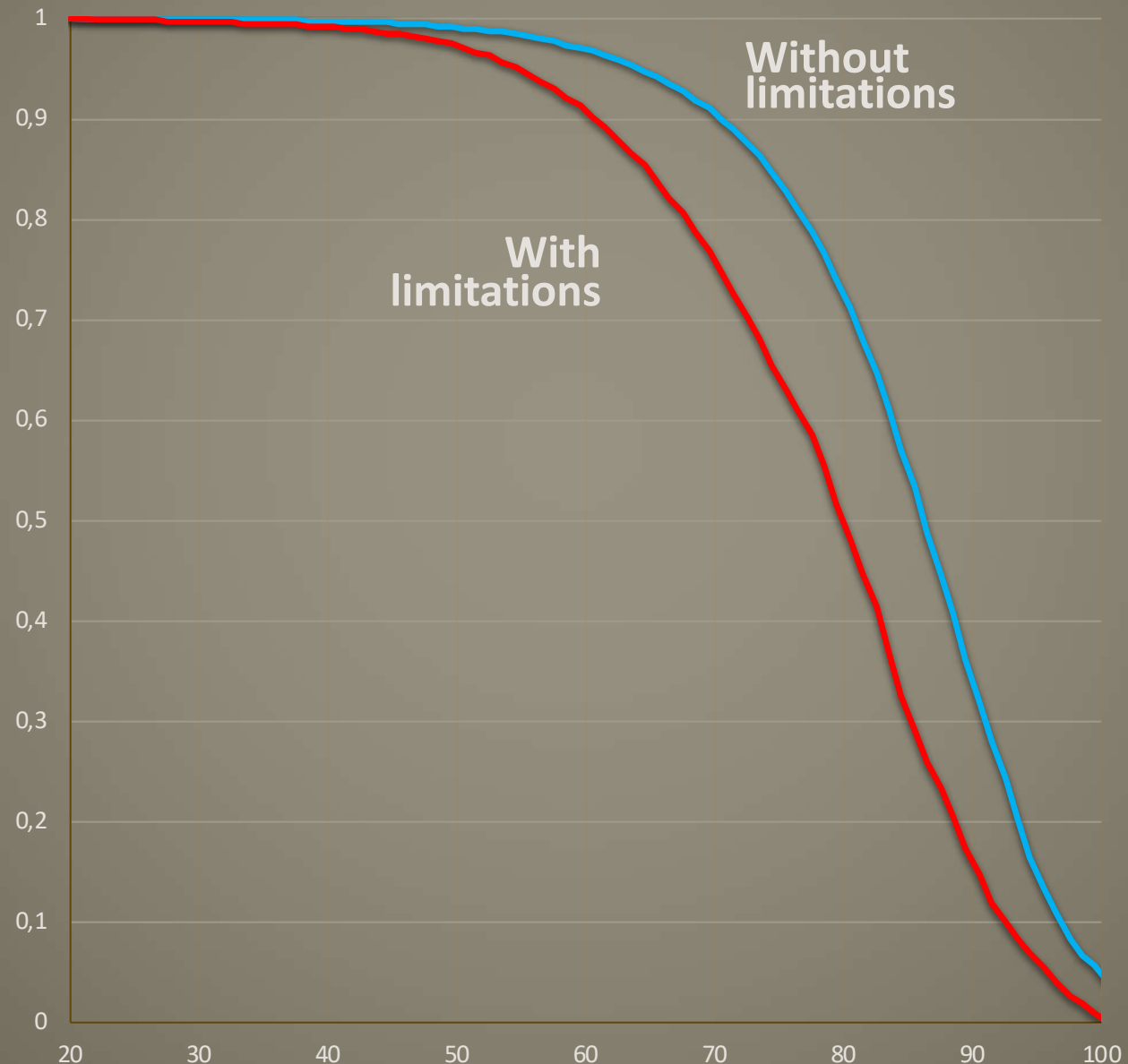
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APPLY WEIGHTS TO COMPUTE DALES<sub>s</sub> :: SULLIVAN METHOD

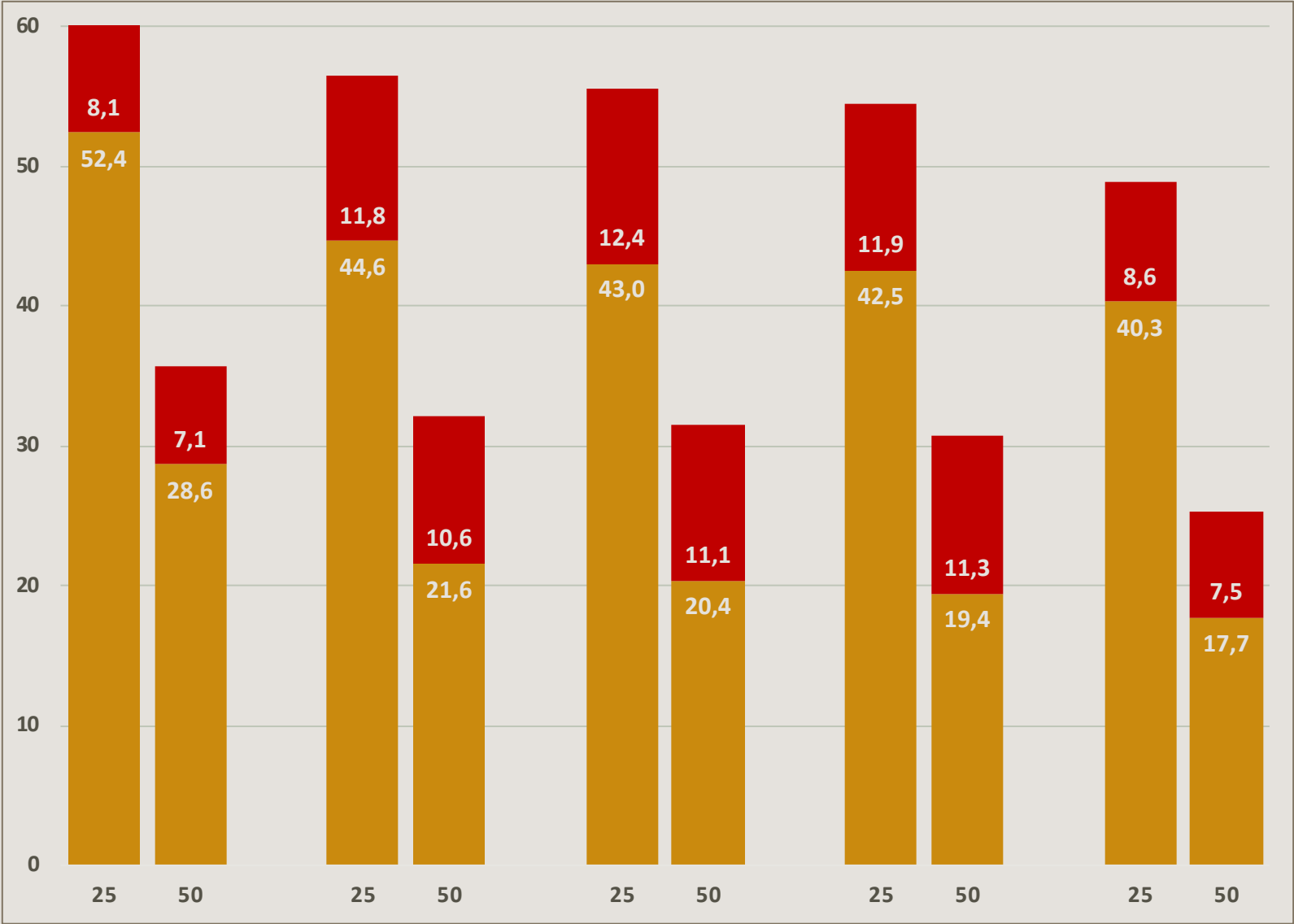
**Women** which stated having often the 4 types of limitations in 2001 died faster in the following 10 years.



**Same thing for men**



# DALE of WOMEN



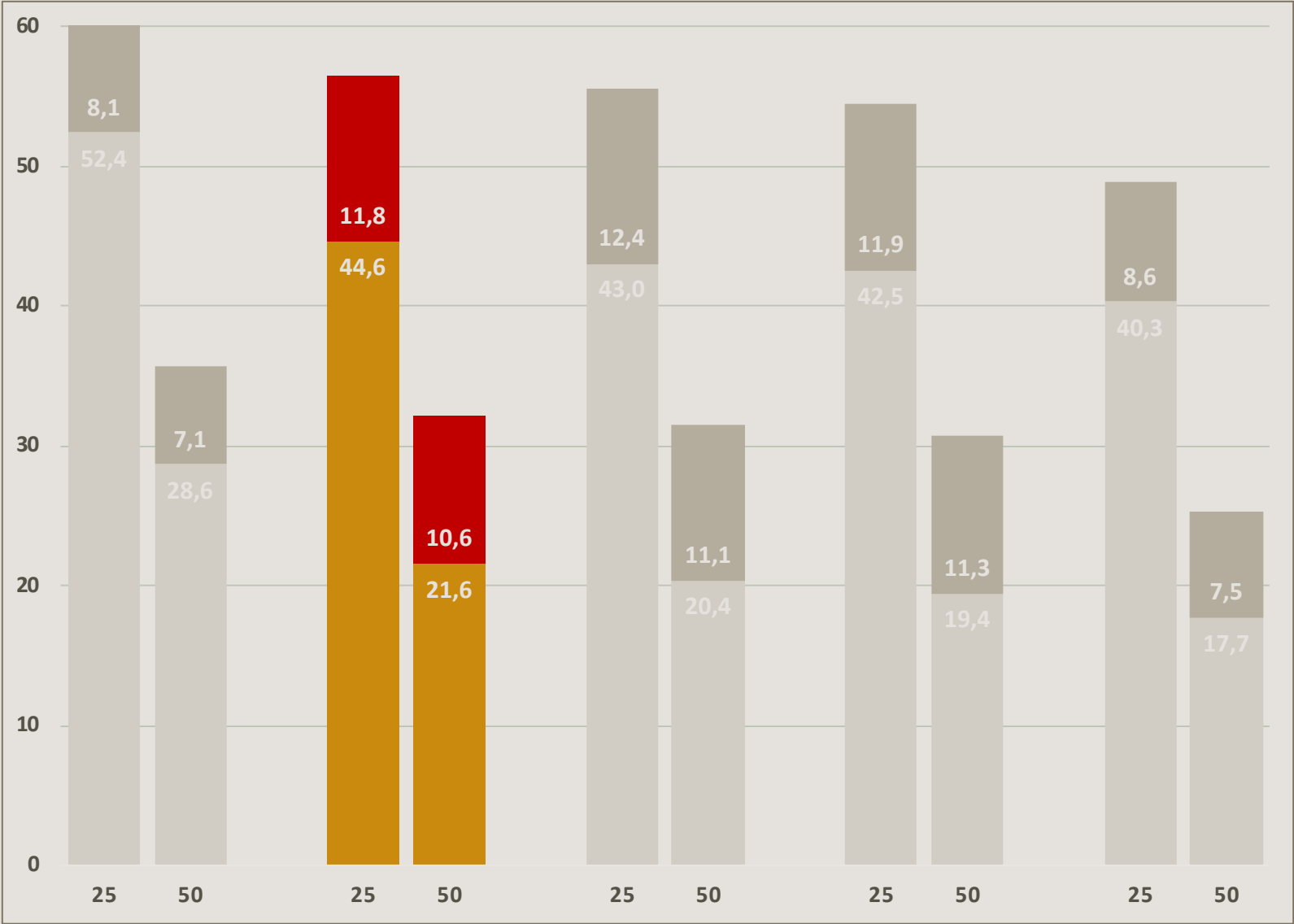
Non aboriginal

Métis

First Nations  
Off reserve      On reserve

Inuit

# DALE of WOMEN



Non aboriginal

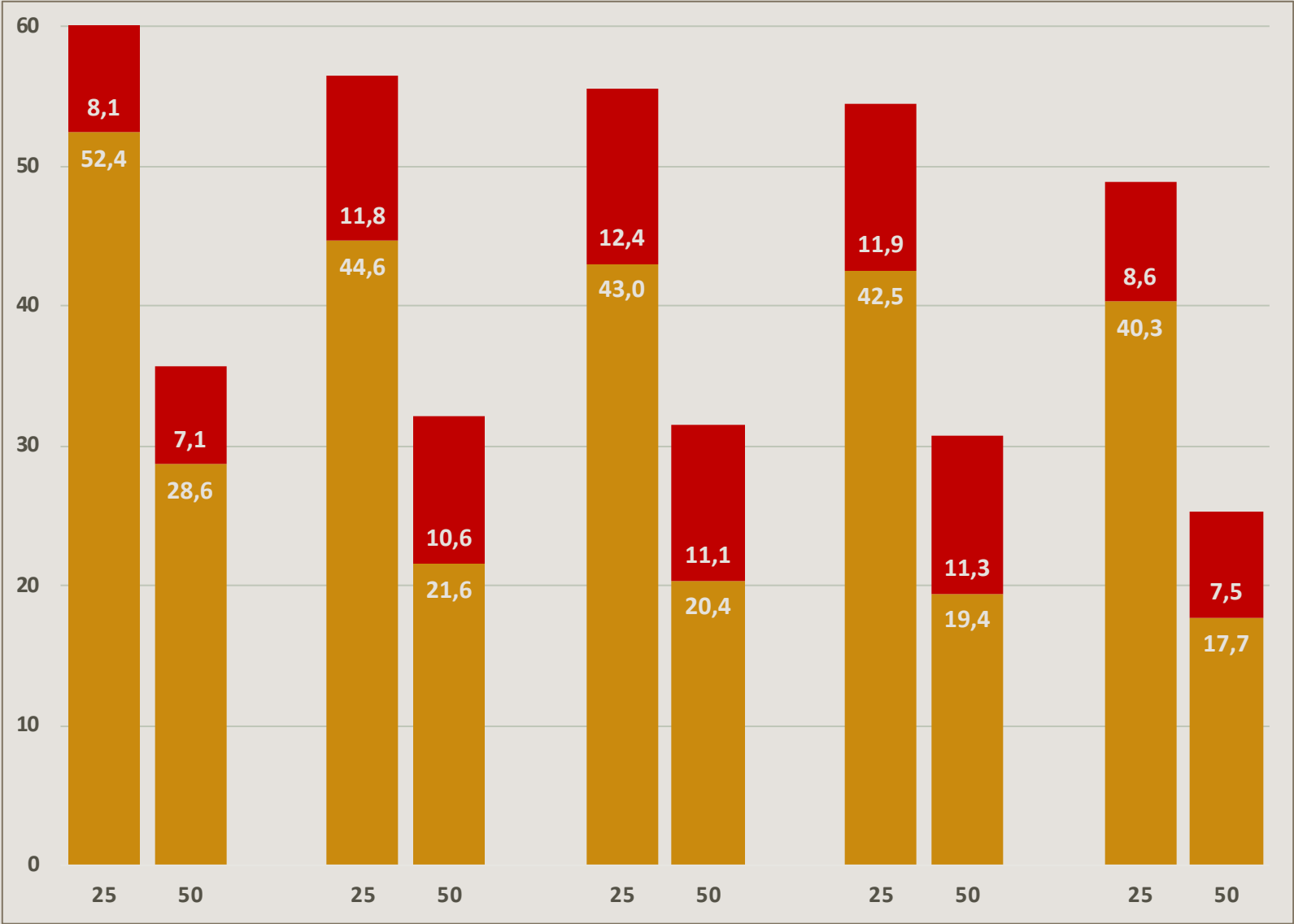
Métis

First Nations  
Off reserve      On reserve

Inuit



# DALE of WOMEN



Non-aboriginal

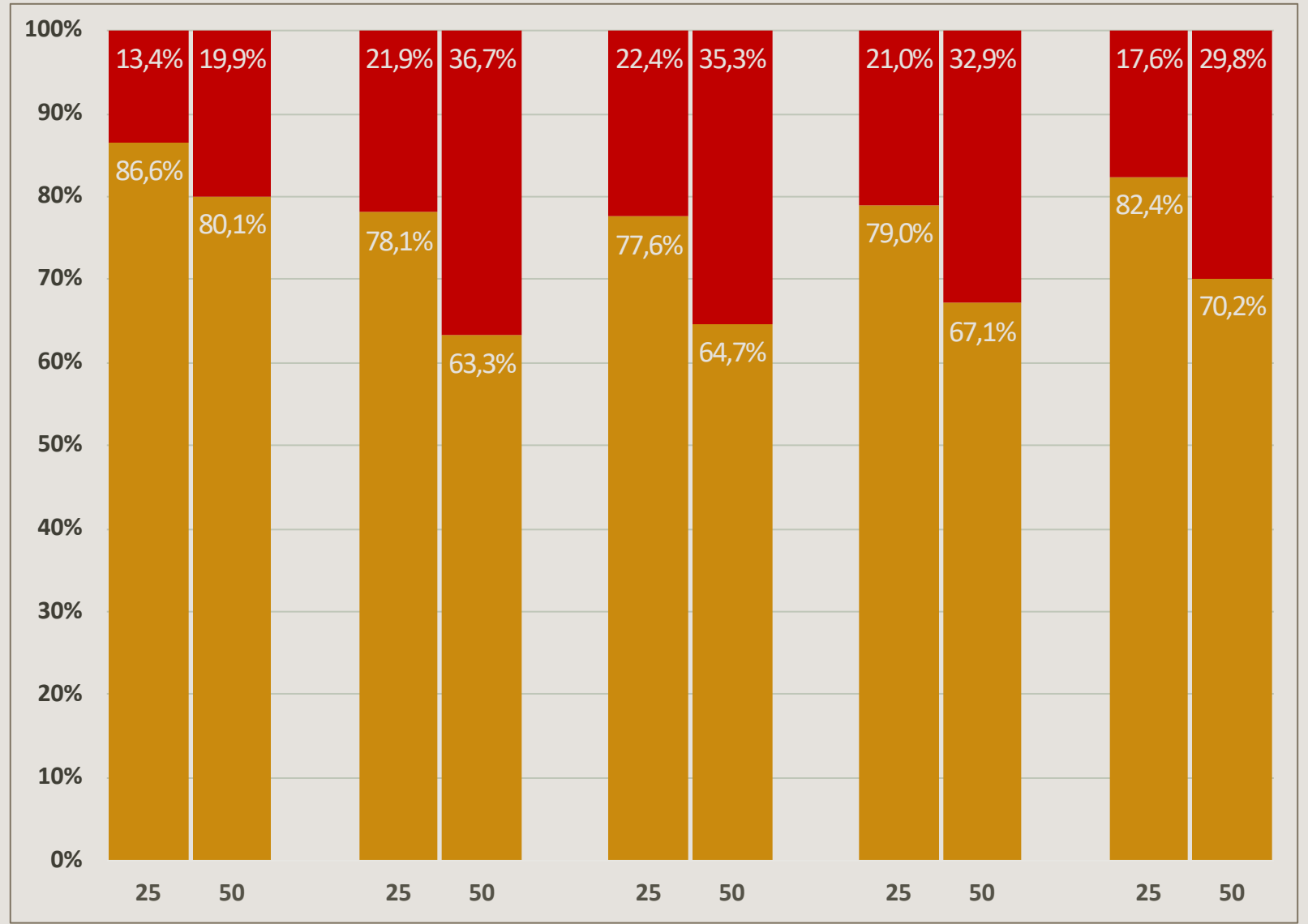
Métis

First Nations  
Off reserve      On reserve

Inuit

# DALE of WOMEN

Proportion of life expectancy with or without limitations.



Non aboriginal

Métis

First Nations

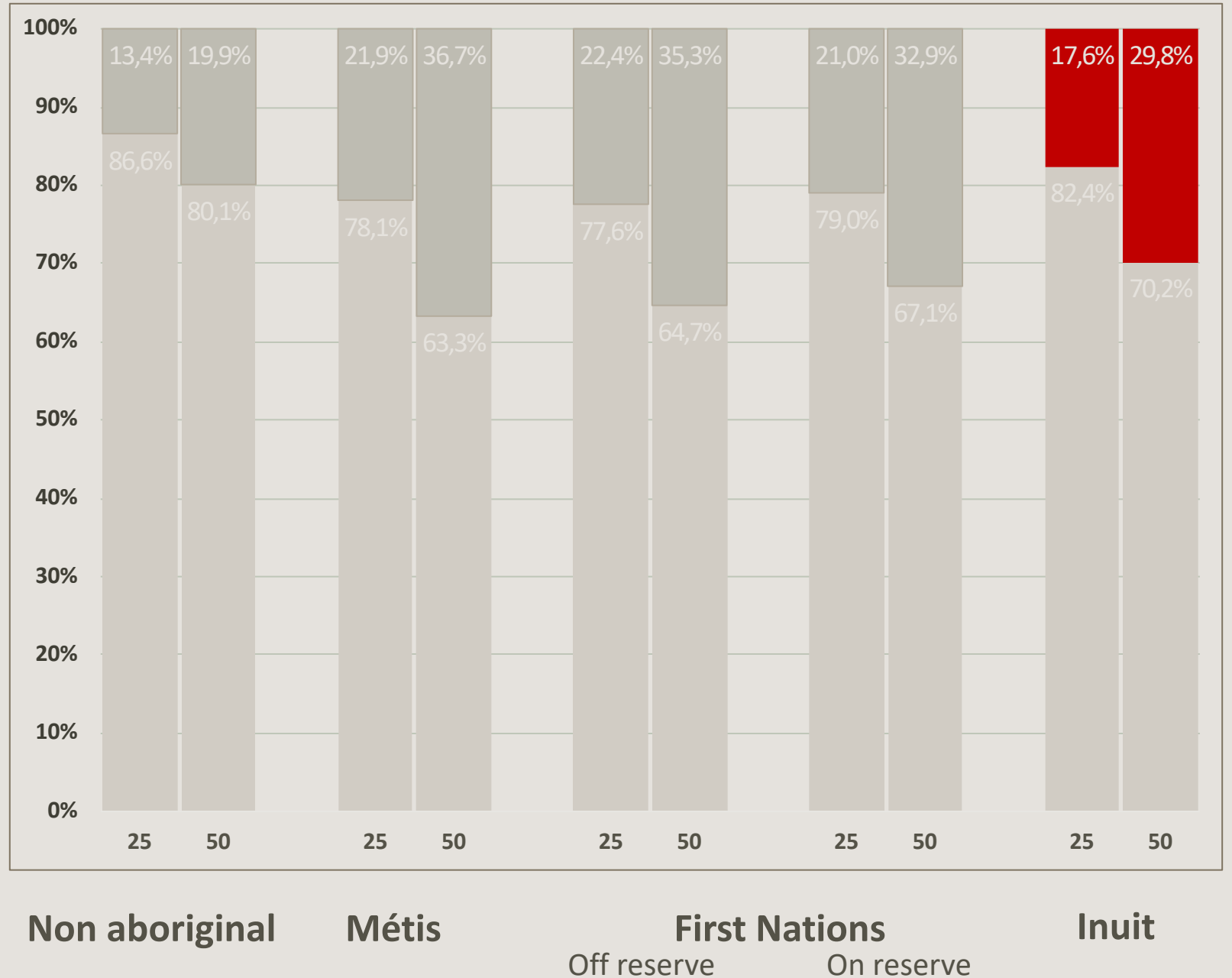
Off reserve

On reserve

Inuit

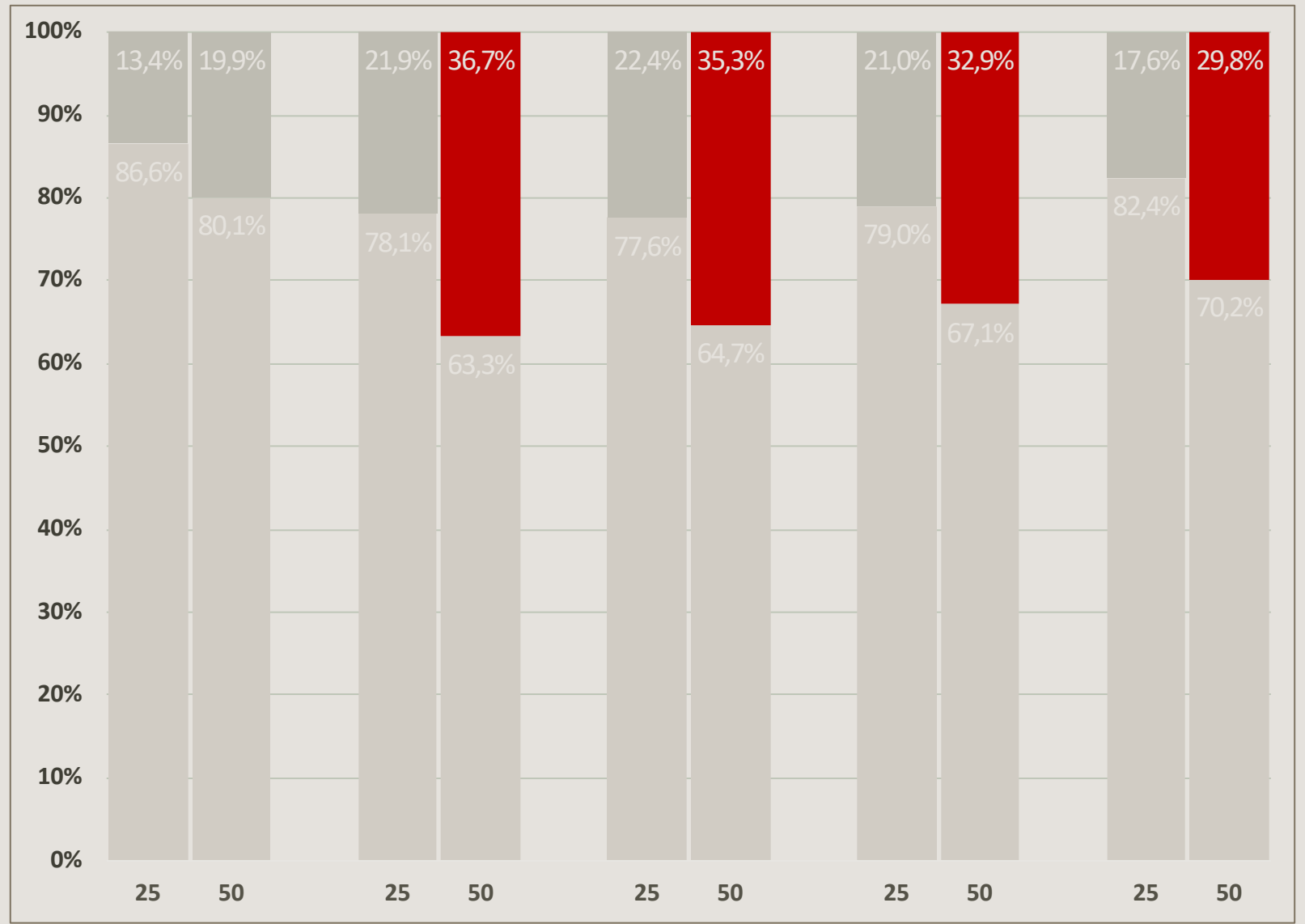
# DALE of WOMEN

Inuits are spending a smaller proportion of their remaining life with a disability.



# DALE of WOMEN

For aboriginal women who survive until 50, they can expect that a third of their remaining life will be spent with a disability.



Non aboriginal

Métis

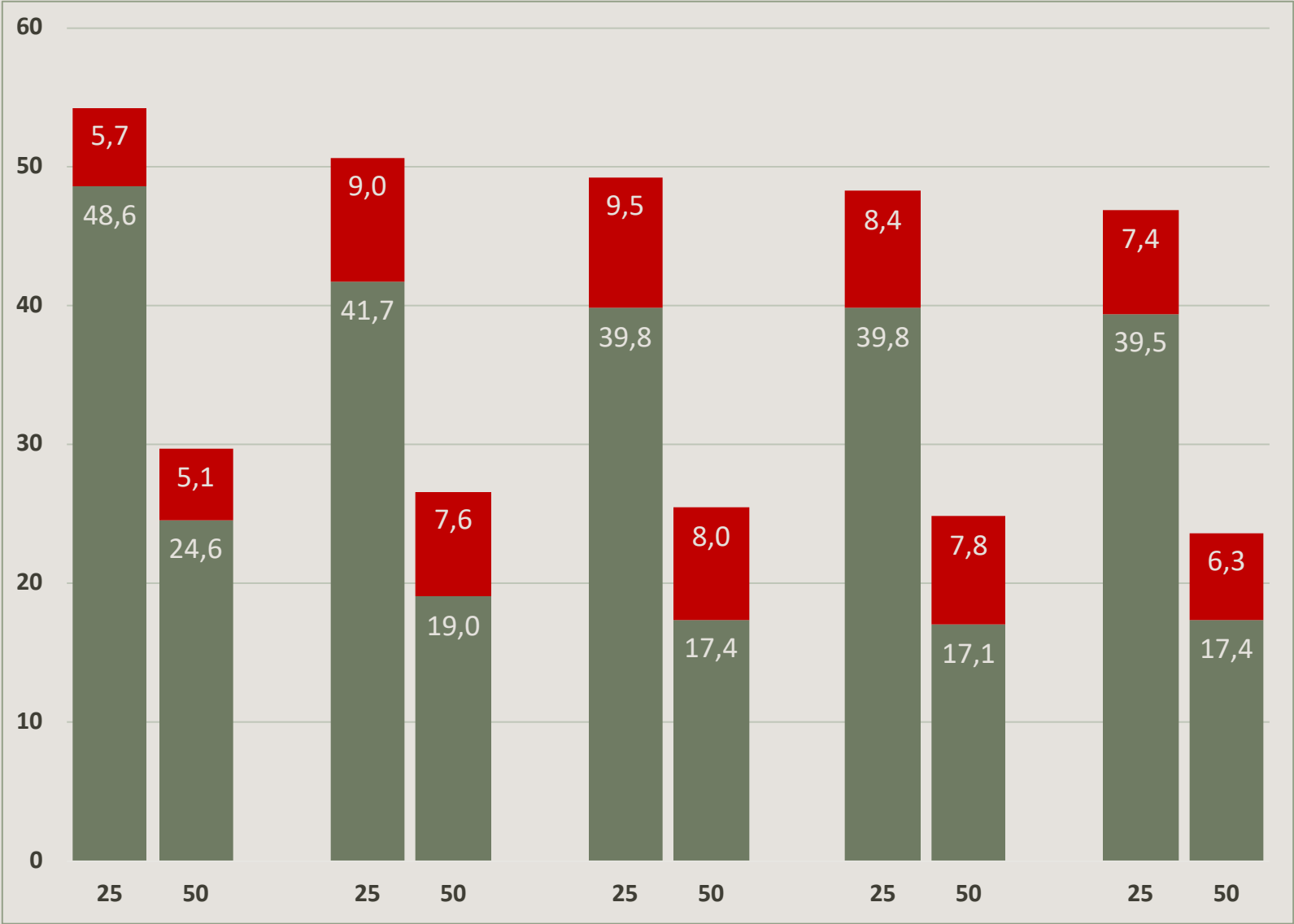
First Nations

Inuit

Off reserve

On reserve

# DALE of MEN



Non aboriginal

Métis

First Nations  
Off reserve      On reserve

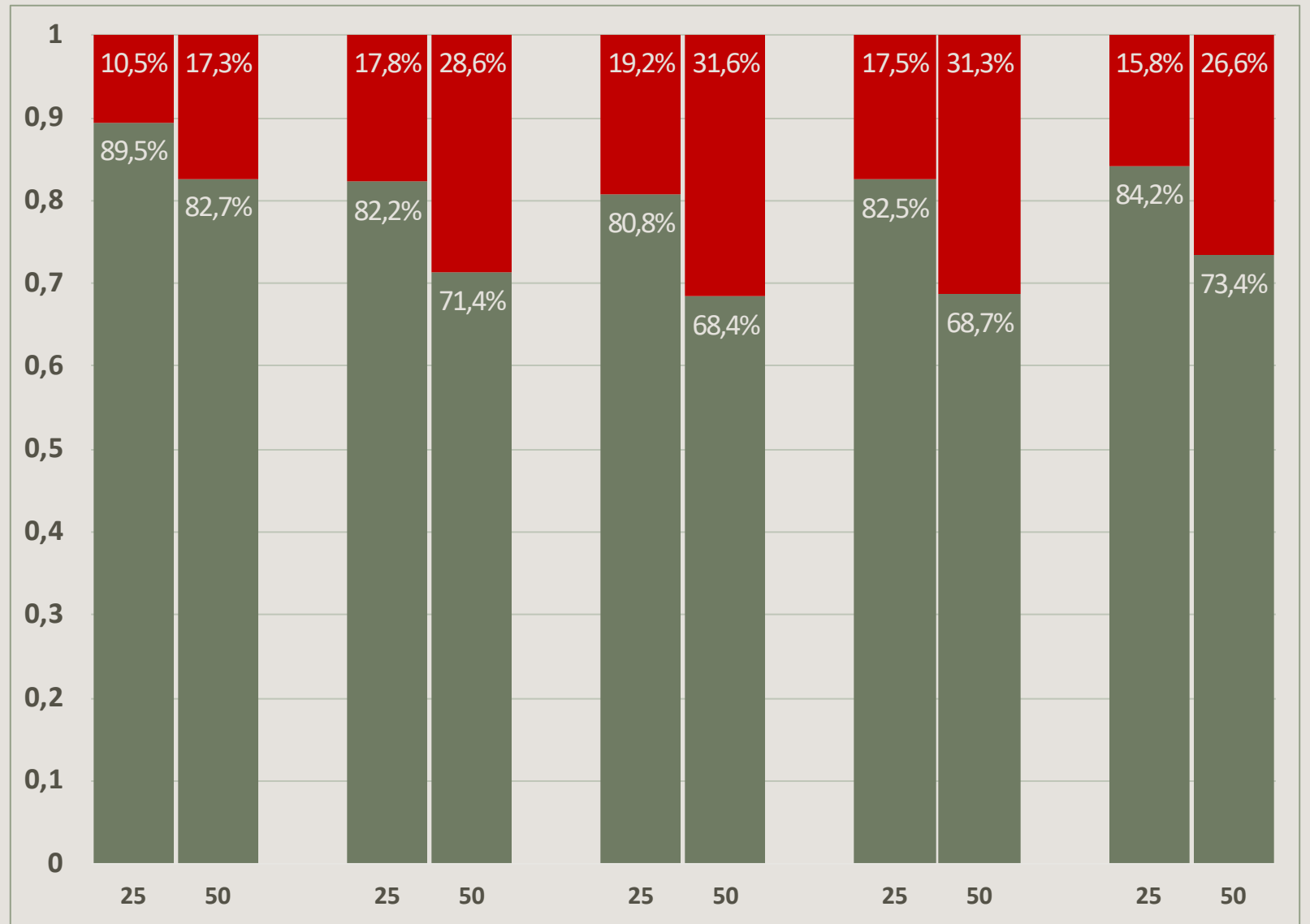
Inuit

# DALE of MEN

Inuit men fare almost as well as other aboriginal men in term of life expectancy without any disability.



# DALE of MEN



Non aboriginal

Métis

First Nations

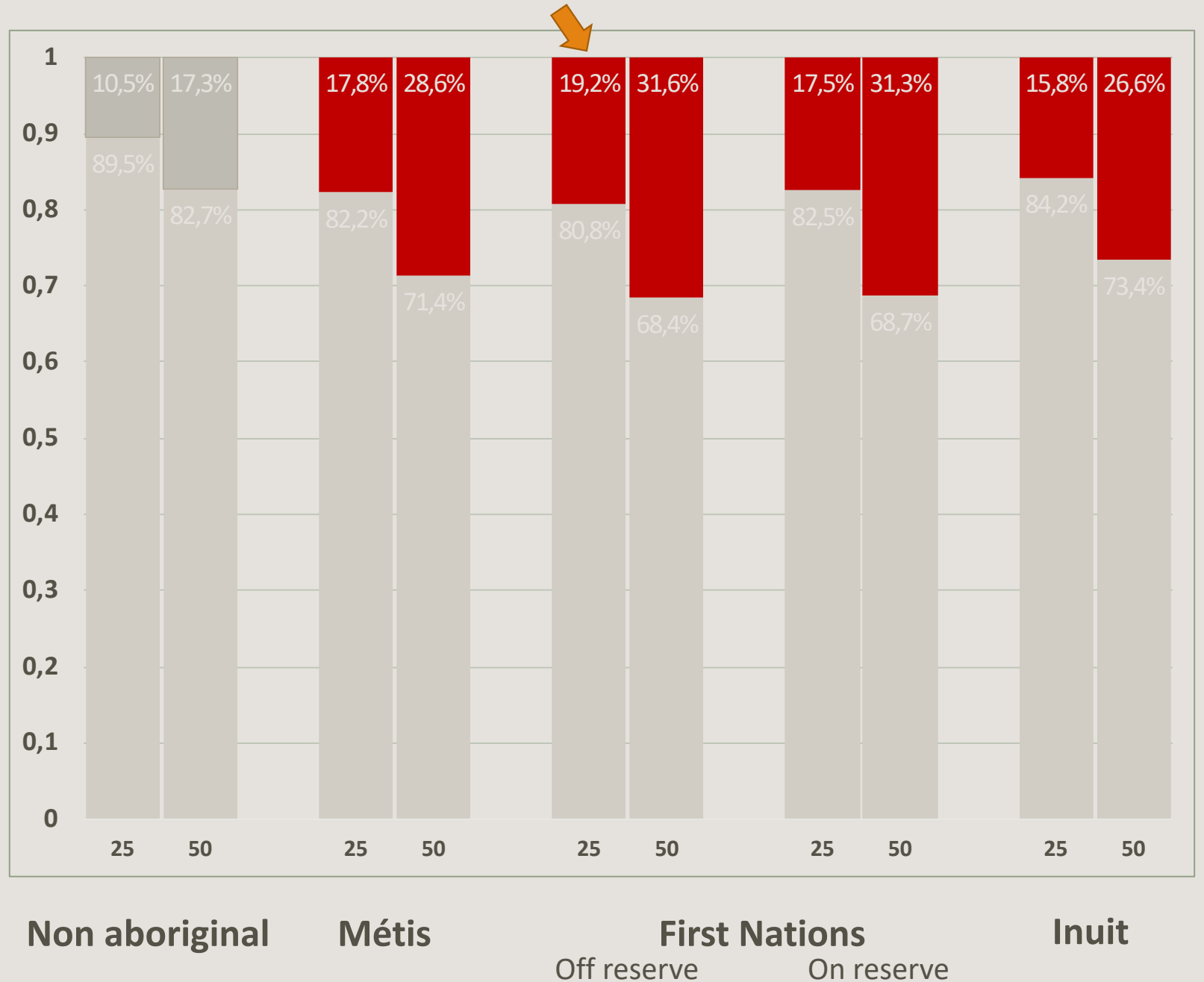
Inuit

Off reserve

On reserve

# DALE of MEN

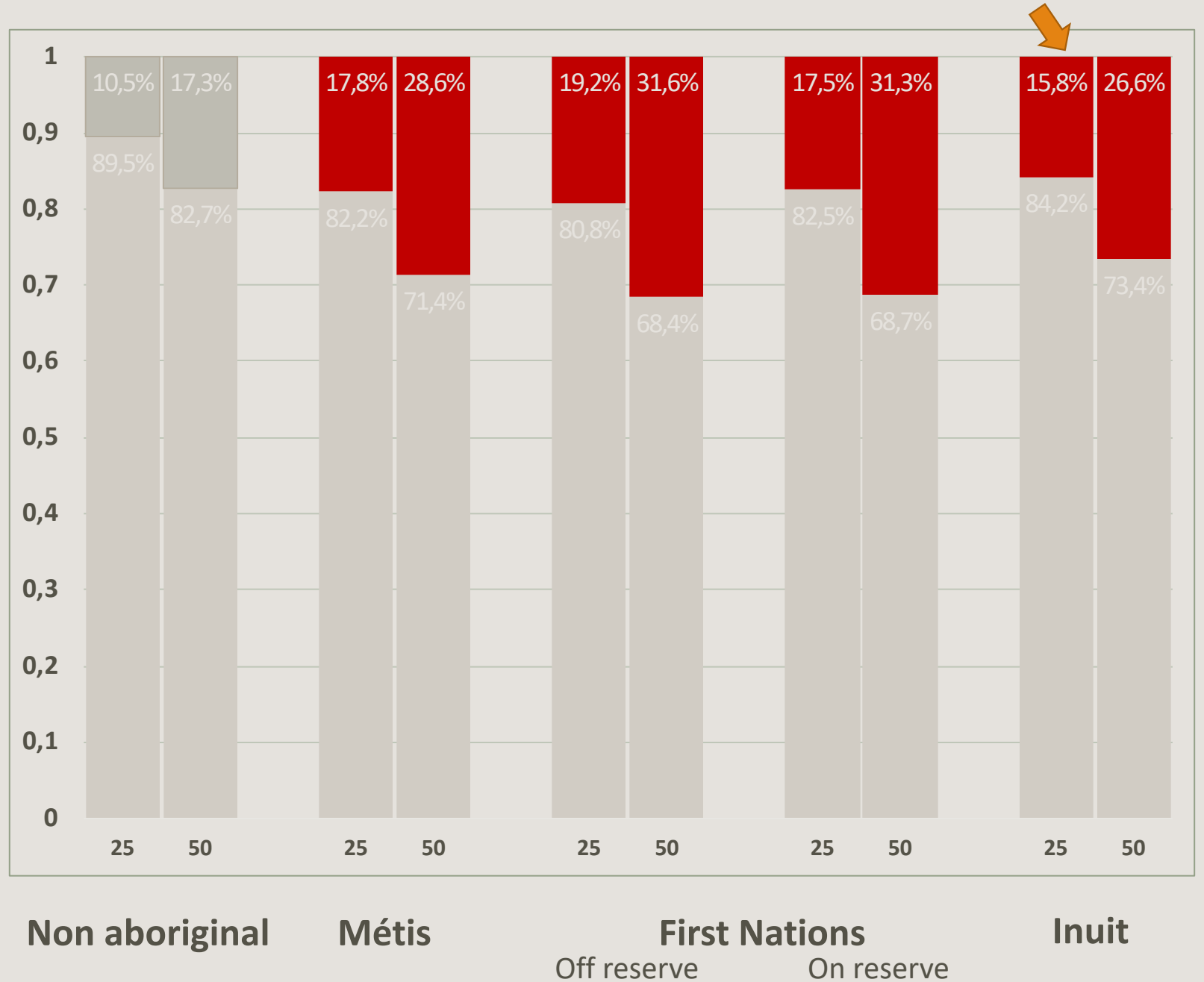
Off reserve First Nations men is the population who spend the largest proportion of their life with a disability.





# DALE of MEN

Inuit men die younger but spend a smaller part of their life with a disability.



## Key results

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- **Life expectancy of aboriginal men and women is notably shorter than non-aboriginals' one.**
- **Aboriginal Canadians spend a greater proportion of their life with a disability.**
- **In term of disabilities, Inuits seem to fare better than other aboriginals.**
- **While aboriginal identity is detrimental to life expectancy as well as life expectancy without disabilities, it is imperative to take gender into account.**

# Limitations

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- **The 2001 Census and missing aboriginal people (Iroquois, Crees and Obidjwe)**
- **Self-reported limitations and culture**
- **Based on 4 generic questions about limitations, no severity assessment**
- **Comparability**
- **Sample size at old ages**

What do we suggest policymakers should do about this?

North

## Food insecurity rising in Nunavut since launch of Nutrition North: study



Food Insecurity affected 46 per cent of Nunavut households by 2016, study says



[Nick Murray](#) - CBC News - Posted: May 21, 2019 4:00 AM CT | Last Updated: May 21

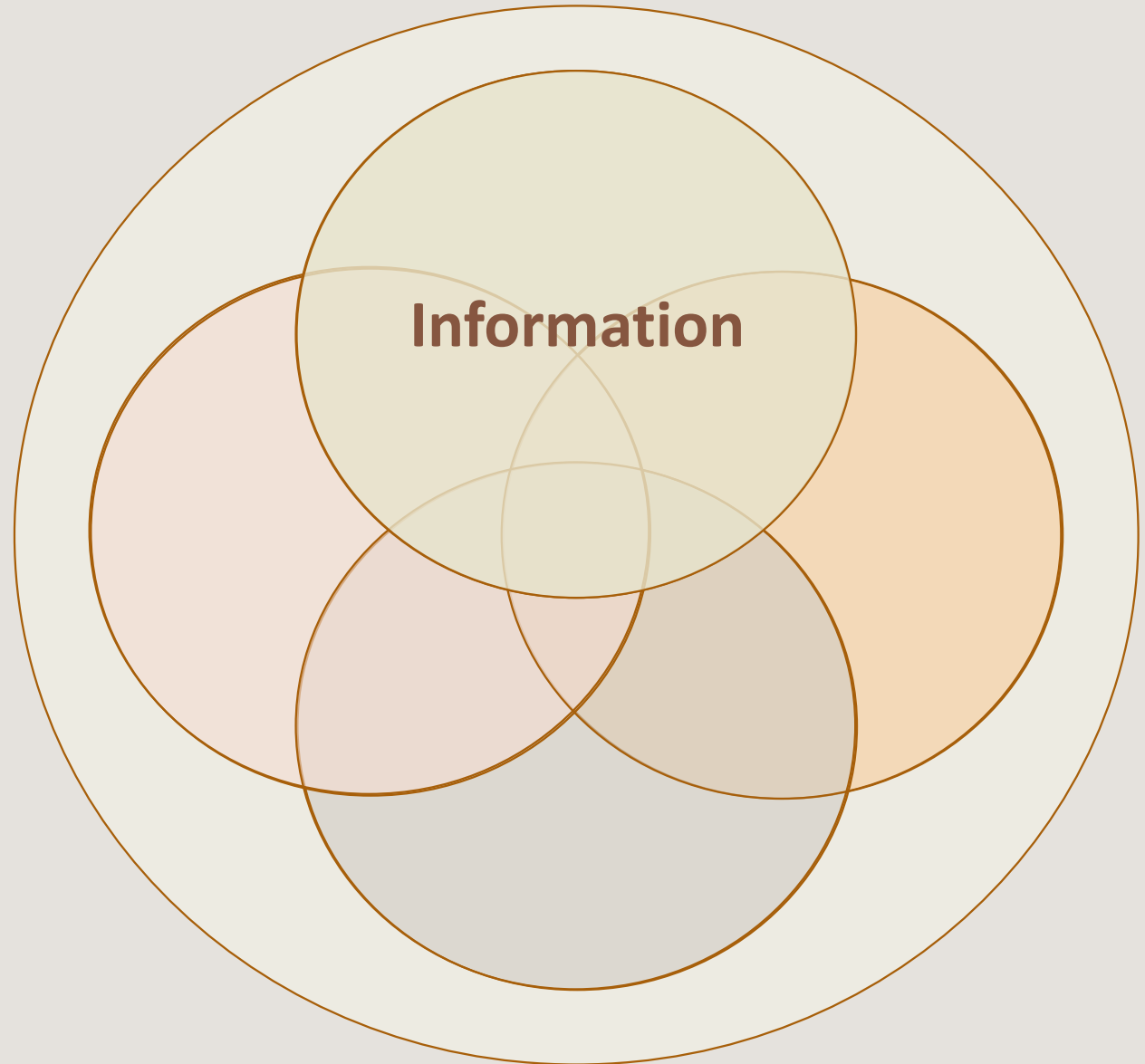


On Sept. 27, 2016, a two-litre carton of orange juice was priced at \$12.99. That doesn't count the \$1 federal subsidy provided through the Nutrition North program. (Elyse Skura/CBC)

So... What can be done?

## 1. Holistic approach

(Share results with aboriginal people)



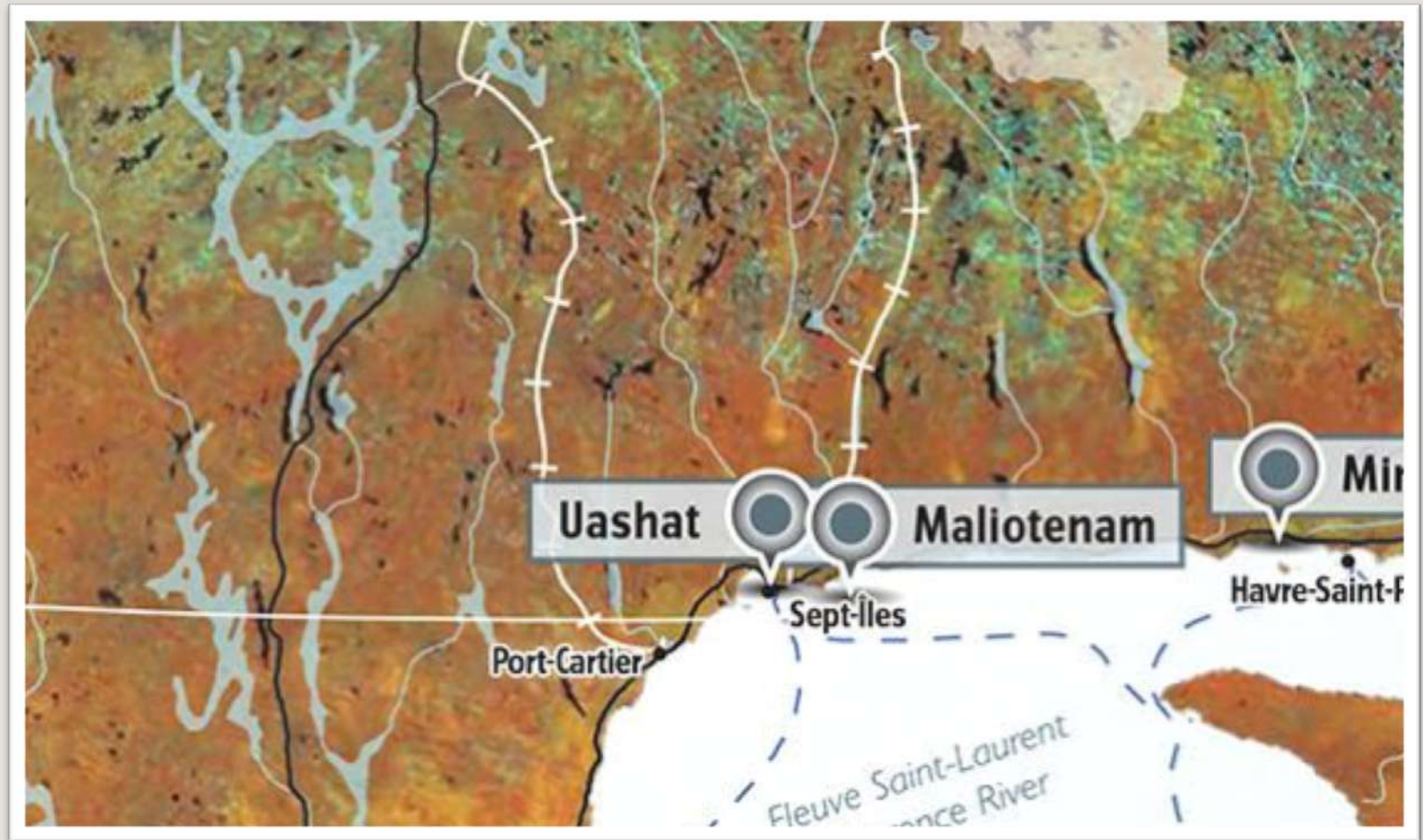
**Maximise current data usage and be more proactive in building bridges with academics.**

So... What can be done?

## **2. Data and research**

So... What can be done?

### 3. Education...



# Education of non-aboriginal young Canadians

Knowledge of aboriginal recent history + Intercultural activities



THANKS

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ResearchGate