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Sciences Economiques & Sociales de la Santé
& Traitement de l'Information Médicale

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Le retour et le maintien en emploi après un diagnostic de cancer

avril 2017



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Gender inequality on employment in France : when cancer interferes.

First results from the French VICAN Surveys

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Impact of cancer on gender inequalities at work

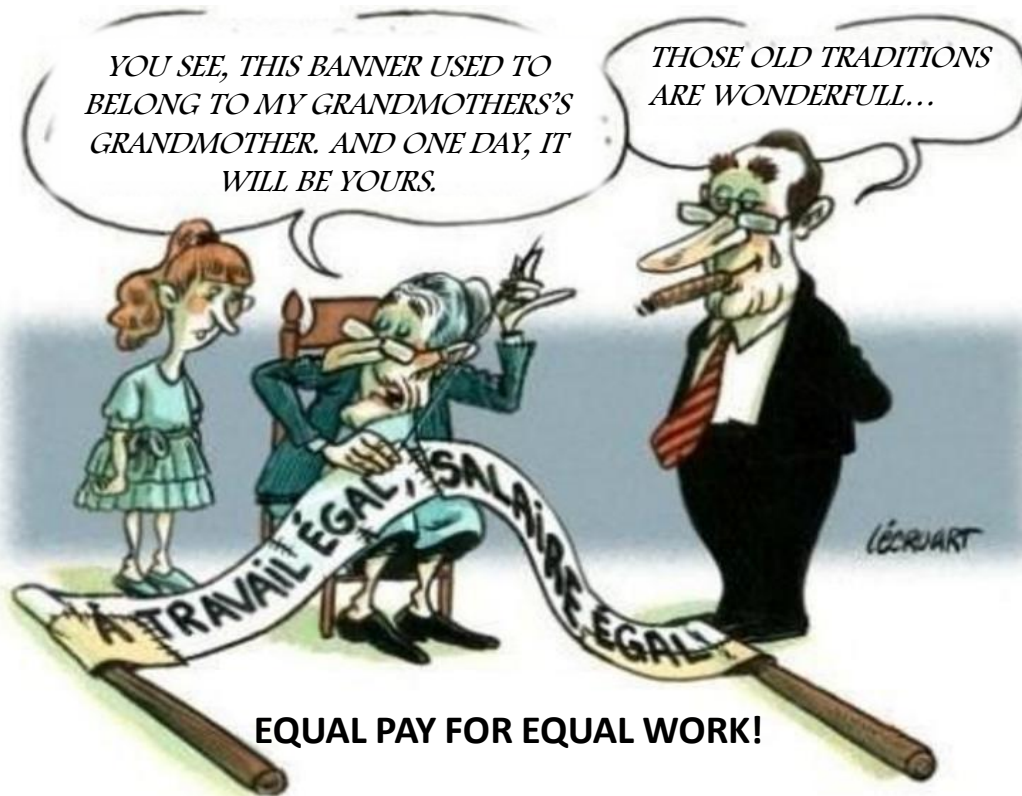
INTRODUCTION

- I. RESEARCH QUESTION
- II. MATERIAL AND METHODS
- III. RESULTS

CONCLUSION



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INTRODUCTION

Gender inequality at work



Gender inequality at work

European indicators of gender inequalities at work *(proposal)*:

- Gap between **average wages** among women and men (INSEE).

« To pay the same wage for the same work whatever the sex, had not always been the legal standard » (Meurs, 2014).

- In average, French women earn between **16 and 28% less than men** *(DADS survey INSEE 2010 and 2012).*
- **Sticky floor** and **Glass ceiling** *(Guionnet & Neveu, 2005 ; Marry, 2008).*
- 34% of manager workers are women, 11% hold *top level* position *(DADS survey INSEE 2010)*
- Reduced job VS **Part-time job** *(Maruani, 2011 ; Moulin, 2016).*
 - 30% of women VS 5% of men.

What happens when cancer interferes?



RESEARCH QUESTION | **Intersectionality** (K. Crenshaw, 2005)



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Cancer in France

- Each year, **355 000** new individuals are diagnosed with cancer,
 - For more than half, the **survival rate is > 50%** (INCa, 2010).
 - Nearly half of incident case are in the **working age**.
- As Long Duration Disease, **all cancer-related costs are covered** by the French national health insurance fund *(from screening to end of treatments)*.
- « 2 years after diagnosis, employment rate is 10% lower among cancer survivors » (INCa, 2012).
 - **Is the negative impact of cancer on employment the same for men and women ?**
- Women remained at work longer than men before retiring *(INCa, 2012)*.

BMJ Open The labour market, psychosocial outcomes and health conditions in cancer survivors: protocol for a nationwide longitudinal survey 2 and 5 years after cancer diagnosis (the VICAN survey)

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To cite: Bouhnik A-D, Costantini S, et al. The labour market, psychosocial outcomes and health conditions in cancer survivors: protocol for a nationwide longitudinal survey 2 and 5 years after cancer diagnosis (the VICAN survey). *BMJ Open* 2015; e009871. doi:10.1136/bmjopen-2014-009871

► Publication history for this paper is available online. To view these files please visit the journal online (http://dx.doi.org/10.1136/bmjopen-2014-009871).

Received 27 June 2014
Revised 17 November 2014
Accepted 23 December 2014



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BMJ Bouhnik et al.



MATERIAL AND METHODS | VICAN Surveys



French VICAN surveys (French Cancer Plan Obj.)

- The first VICAN survey interviewed in 2012 cancer survivors, two years after a diagnosis.
- Among those of this first sample who were still alive in 2015, **1,886 cancer survivors** were interviewed a second time, five years after the diagnosis.
- The survey was restricted to **12 tumour sites** that accounted for 88% of global cancer incidence in France in 2012 (*INCa, 2013*);

Breast,

Lung,

Colorectal,

Upper aerodigestive Tracts,

Kidney,

Cervix,

Endometrial cancer,

Non-Hodgkin

lymphoma,

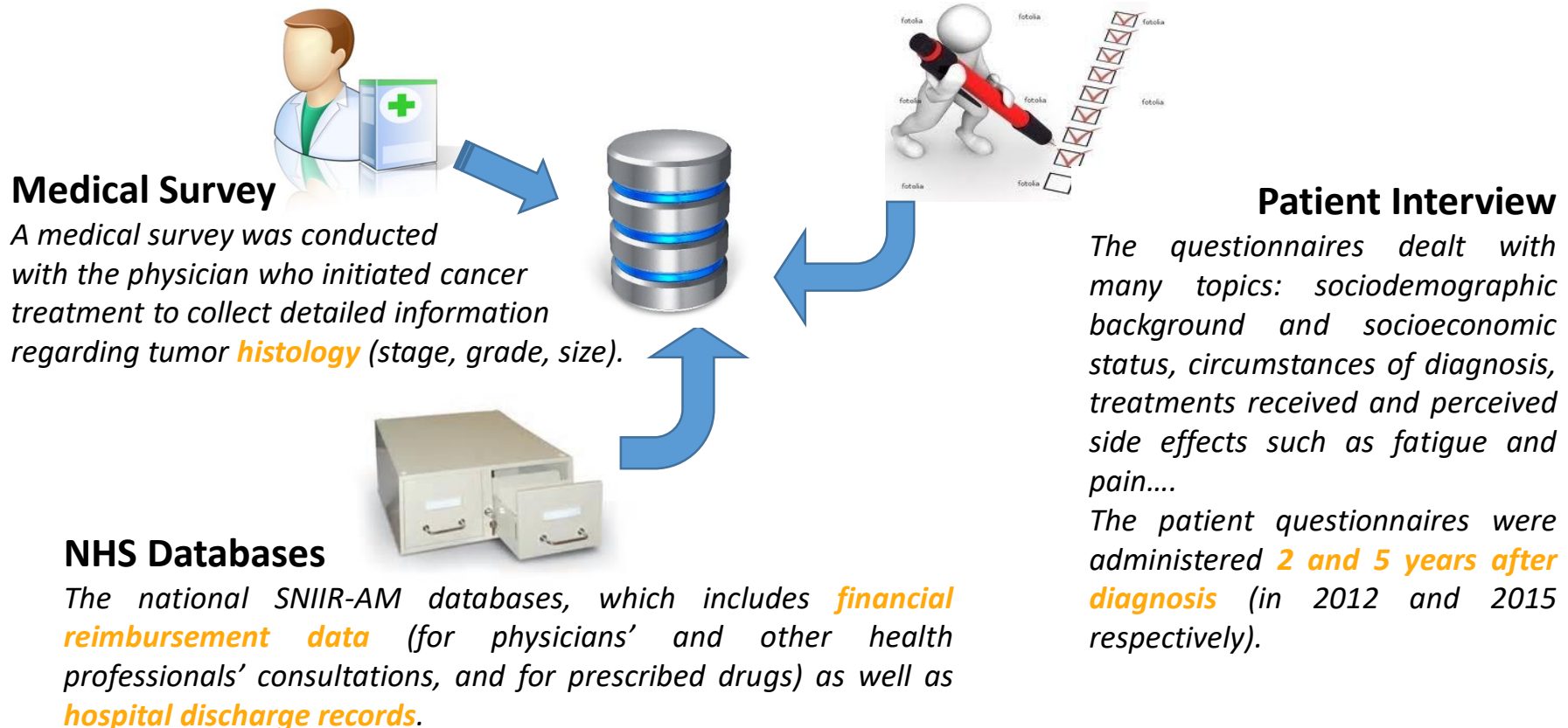
Melanoma,

Thyroid,

Bladder,

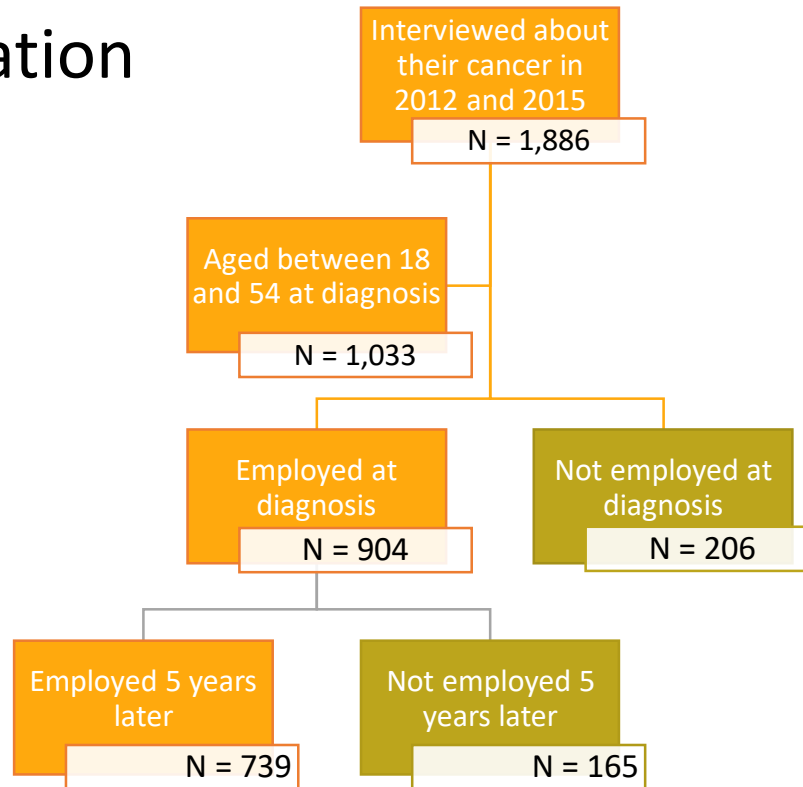
Prostate.

Data collection



French VICAN surveys

- Study population

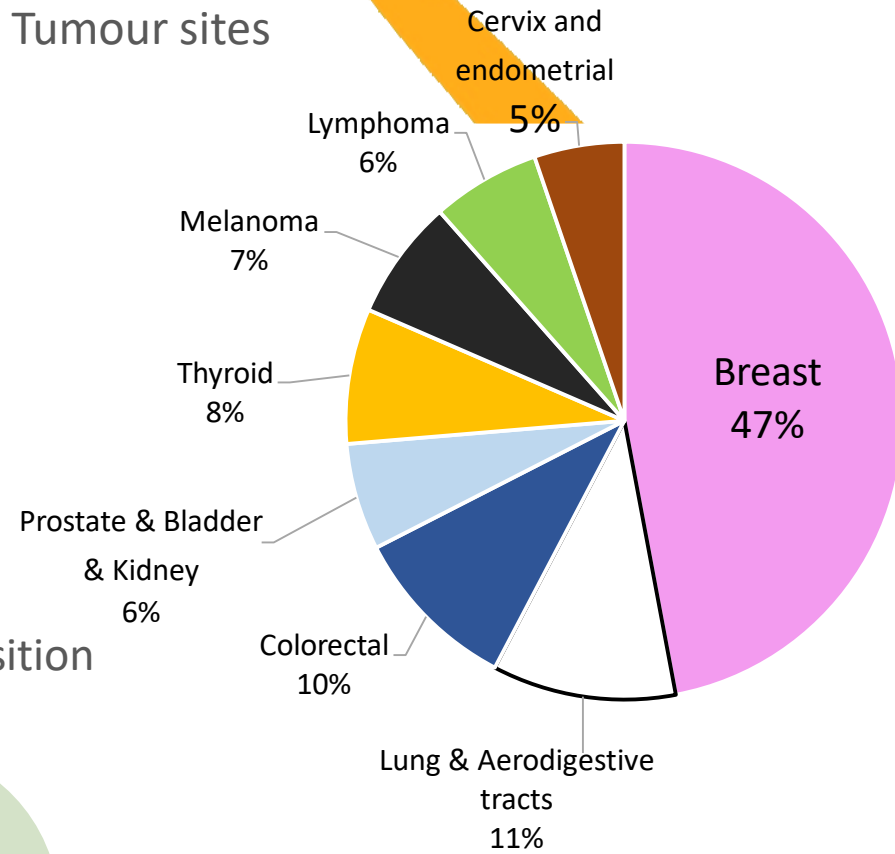




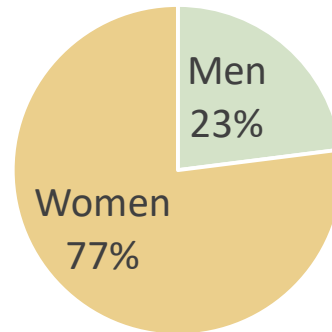
Methods

- Indicators measured
 - **Job retention after cancer**
 - To be employed five years after diagnosis (in the same job or not than before).
 - **Gap between monthly wages among women and men**
 - Wages declared (only 12 missing : < 1%)
 - **Sticky floor**
 - Evolution of occupation classification between diagnosis and five years later.
 - **Part-time job**
 - Transition to part time job in 2015 among individuals in full-time job at diagnosis (2010).
- Analysis conducted
 - Description of professional situation at diagnosis, 2 and 5 years later.
 - To analyze independent factors associated with job retention, **logistic regressions** were used.
 - For individuals who remained employed five years after diagnosis, we used **linear regression** (with Heckman selection) on **wages to analyze the effect of gender** in addition of socioeconomic and medical variables.
 - Sensitivity analysis : **analysis on unisex tumor sites** (n2).

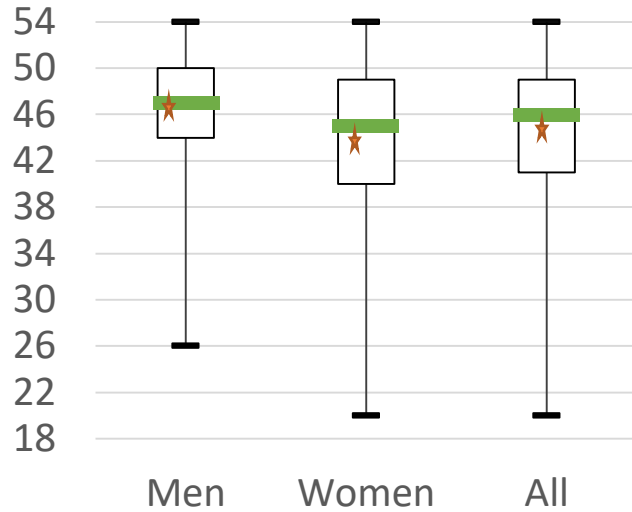
Tumour sites



Gender composition



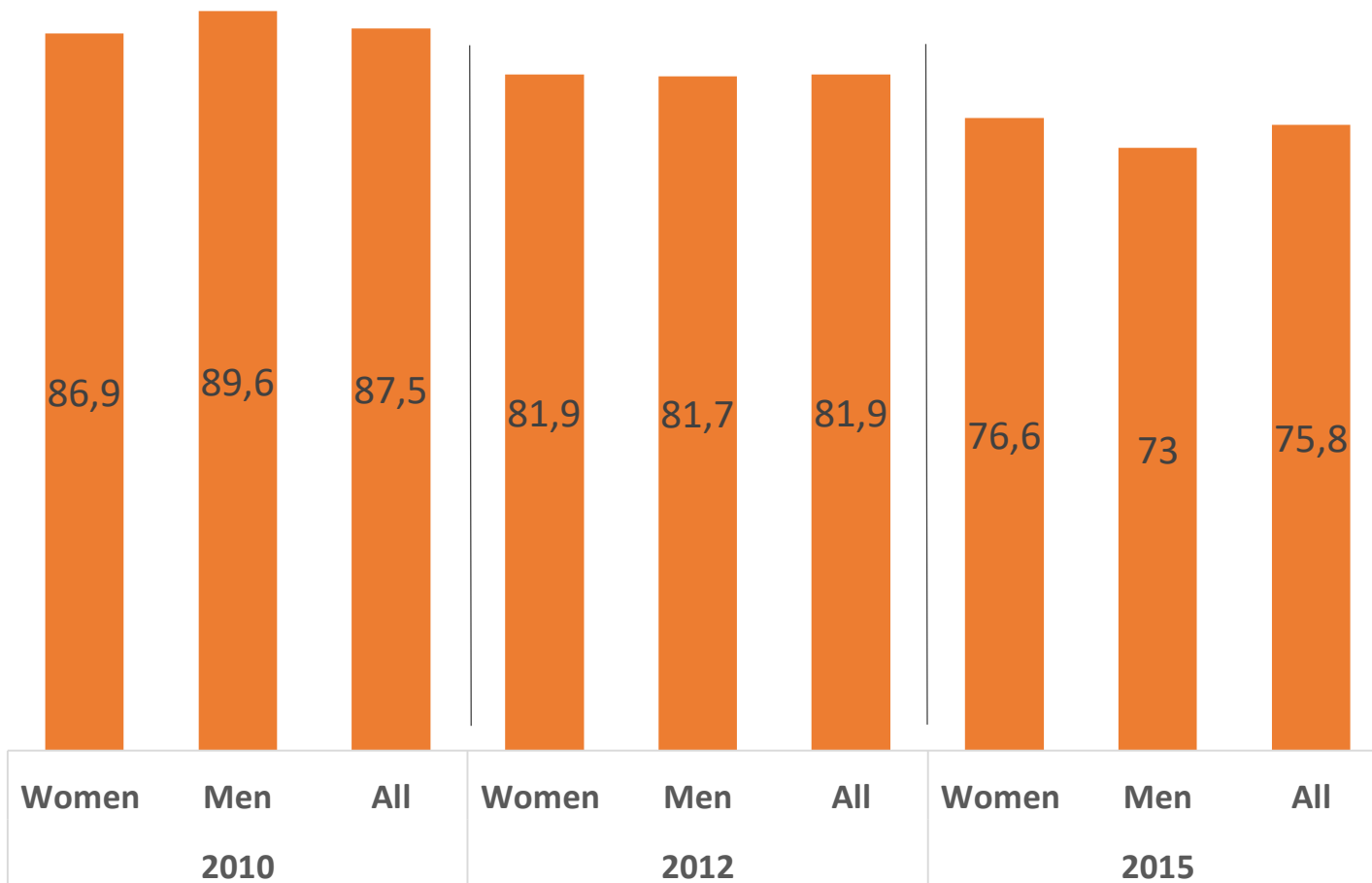
Age dispersion



RESULTS | Impact of cancer on gender inequalities at work

Professional situation 2 and 5 years after cancer diagnosis

■ Employment



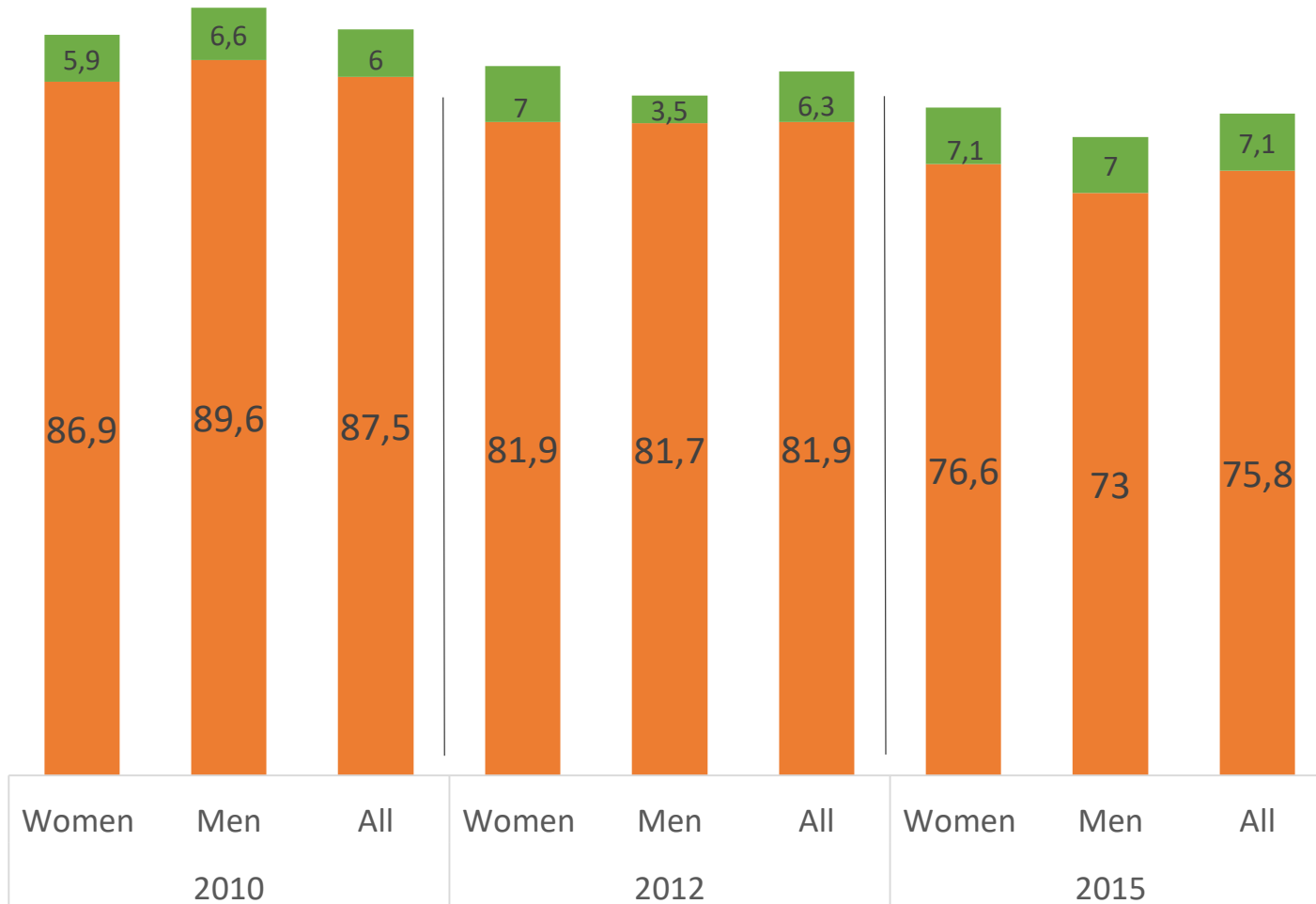
Employment rate gap between diagnosis and 5 years later :

- Women : -10,3 Pts
- Men: -16,6 Pts
- All: -11,7 Pts

N=1 033

Professional situation 2 and 5 years after cancer diagnosis

■ Employment ■ Unemployment



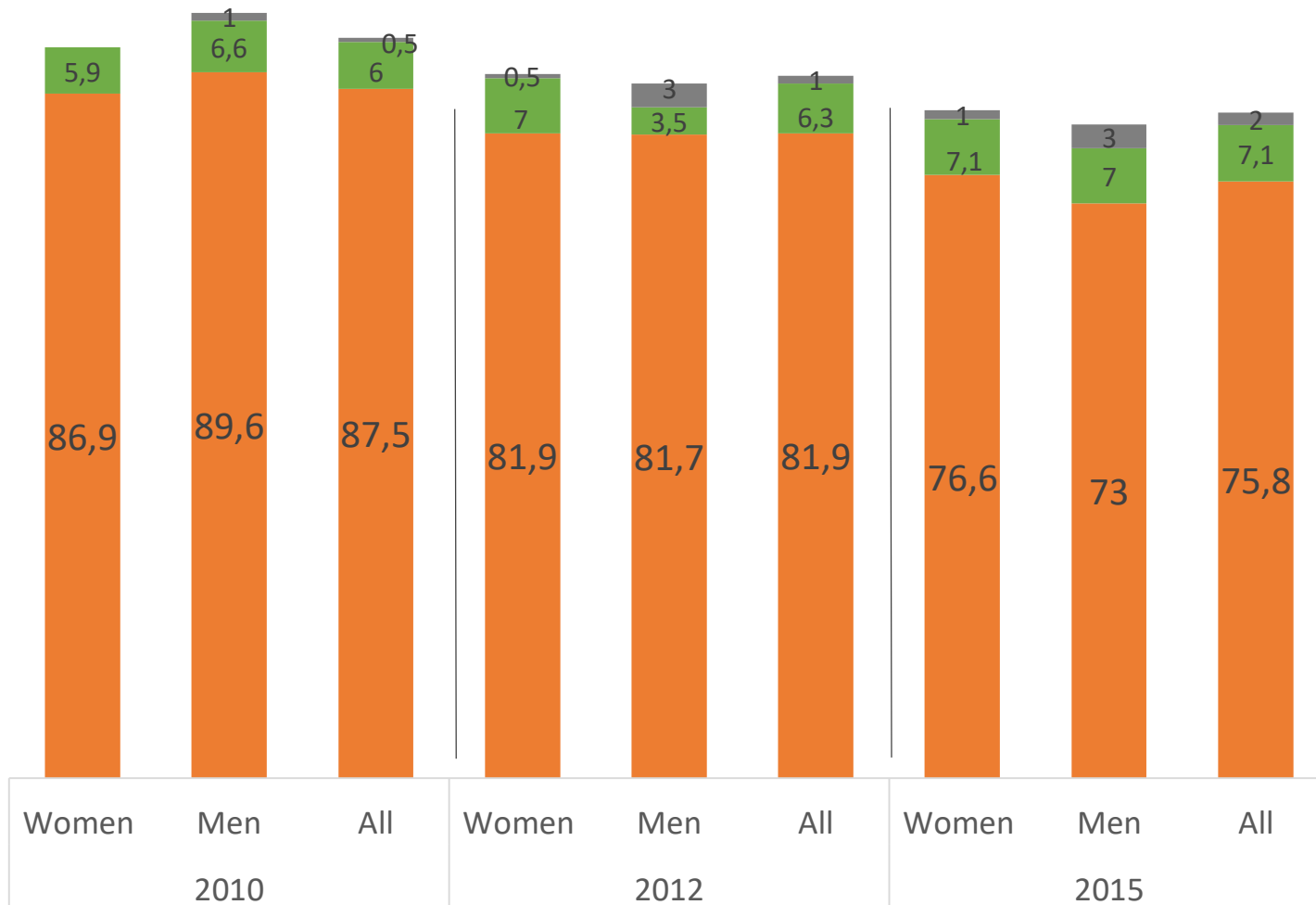
Unemployment rate gap between diagnosis and 5 years later :

- Women : +1,2 Pts
- Men: +0,4 Pts
- All: +1,1 Pts

N=1 033

Professional situation 2 and 5 years after cancer diagnosis

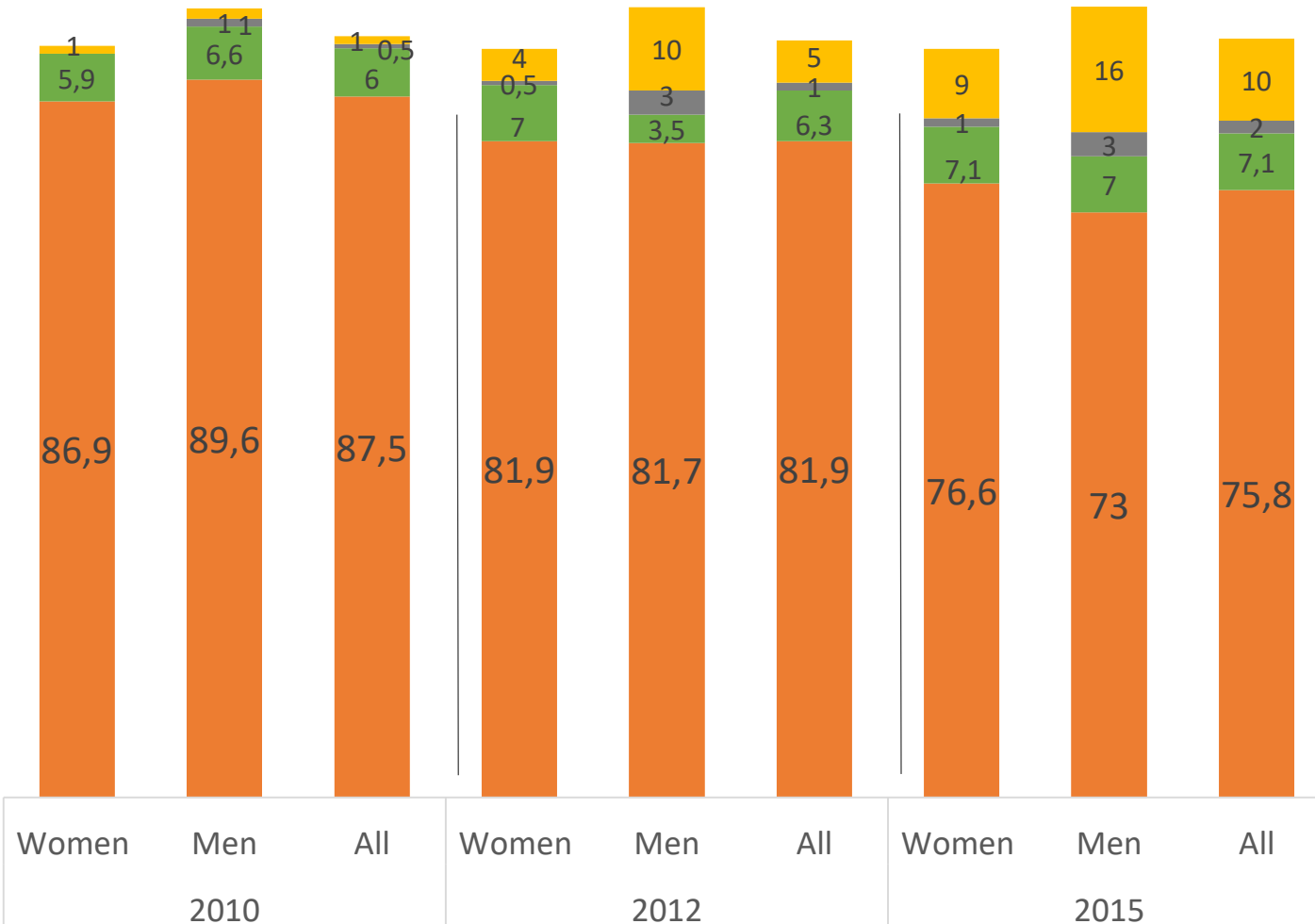
■ Employment
 ■ Unemployment
 ■ Retirement



N=1 033

Professional situation 2 and 5 years after cancer diagnosis

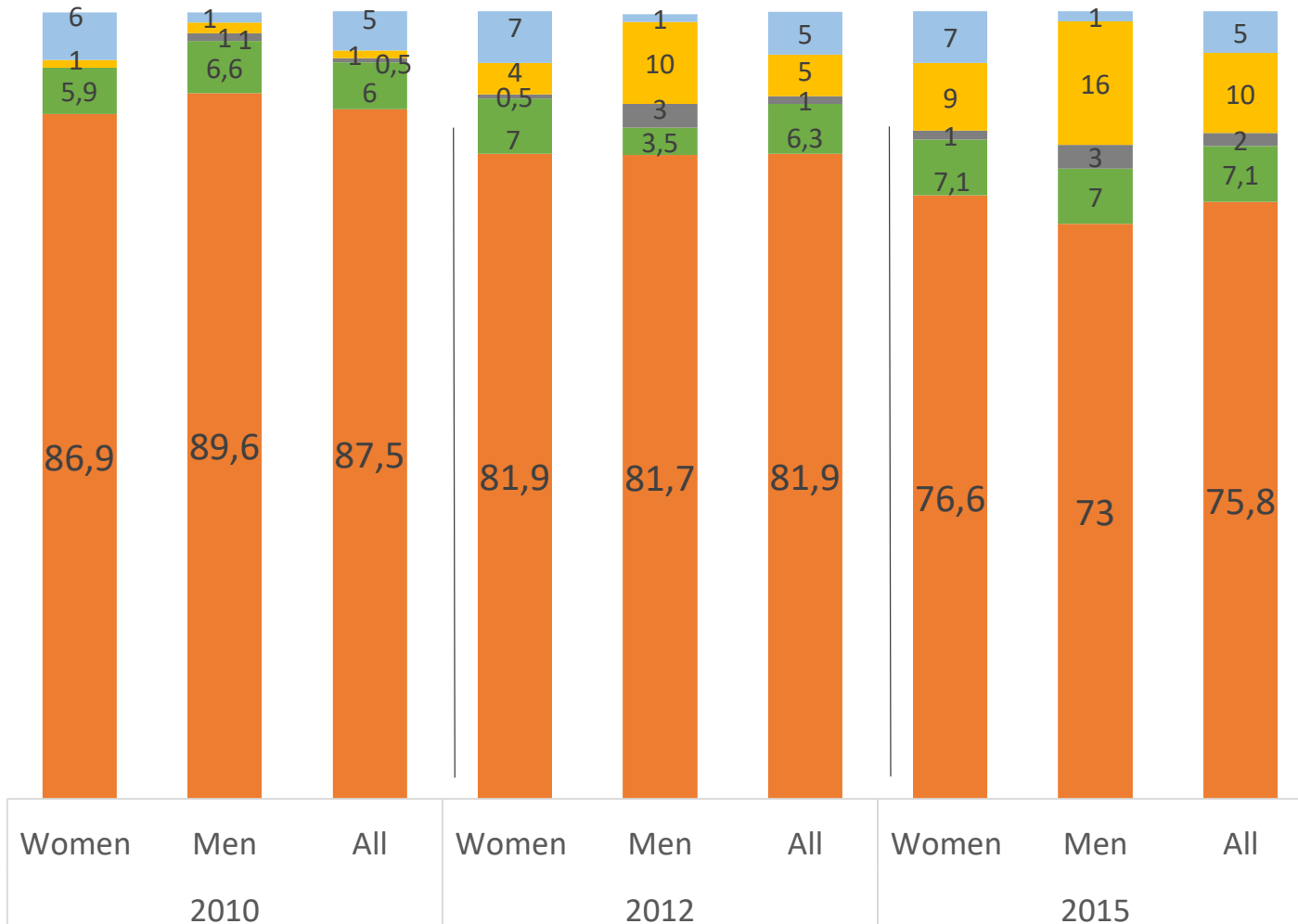
■ Employment
 ■ Unemployment
 ■ Retirement
 ■ Disability



N=1 033

Professional situation 2 and 5 years after cancer diagnosis

■ Employment
 ■ Unemployment
 ■ Retirement
 ■ Disability
 ■ Inactivity



N=1 033

Factors associated with job retention in 2015

- Logistic regression stratified on gender,



N=698 (n2=209)



N=206 (n2=199)

- Being under 50

- Having important sequels from disease or treatments.

- Being not graduated from high school,
- Working in the public sector at diagnosis,
- Working time arrangement in the two years following diagnosis.
- Felt rejected or discriminated at work,
- High mental health.

- Having dependent children five years after diagnosis.

N=904



Synthesis of first results

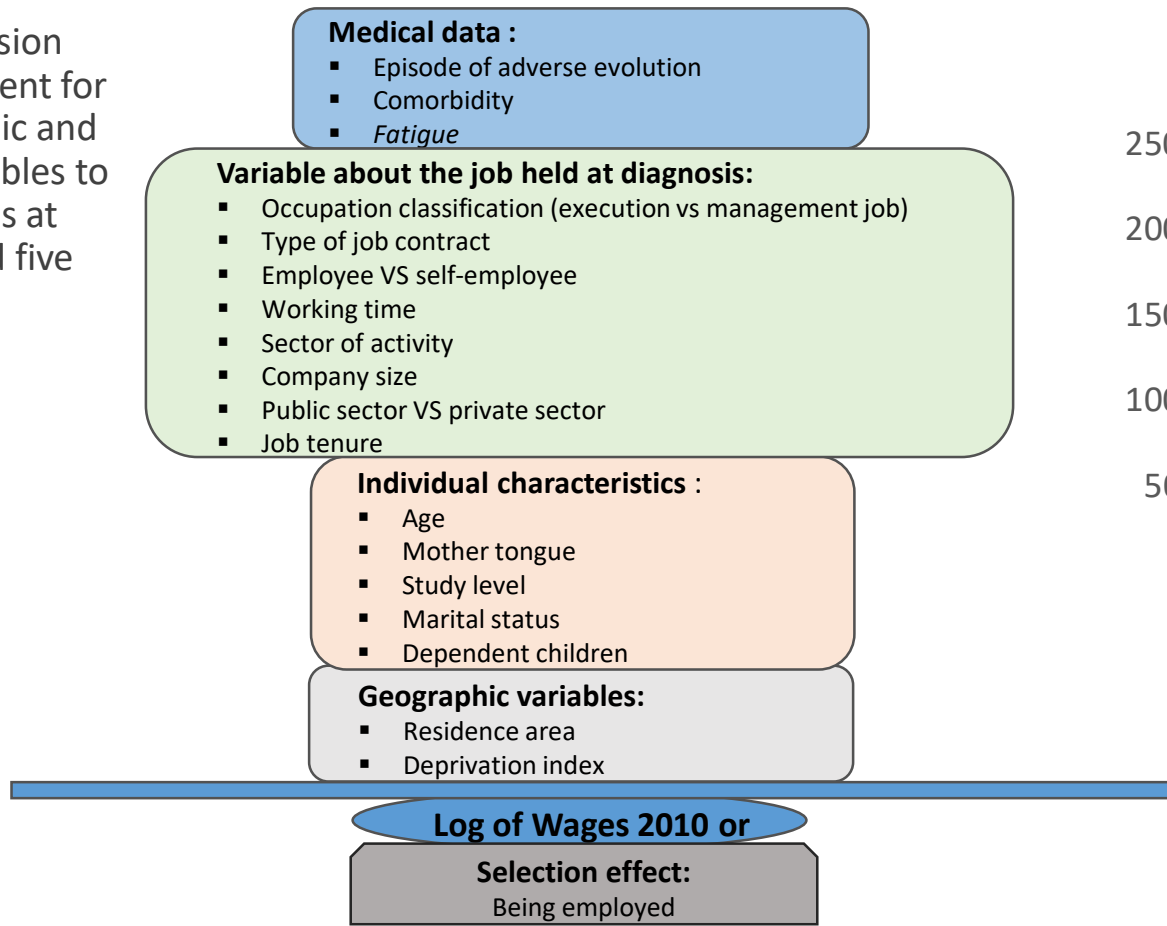
- **Men** more often quit *or lose* their job for **retirement or disability** status than women;
- **Women** more often *quit or lose* their job for **unemployment** situation.
- Factors associated with **job retention are different between men and women.**

→ Cancer does not have the same impact on professional status for men and women.

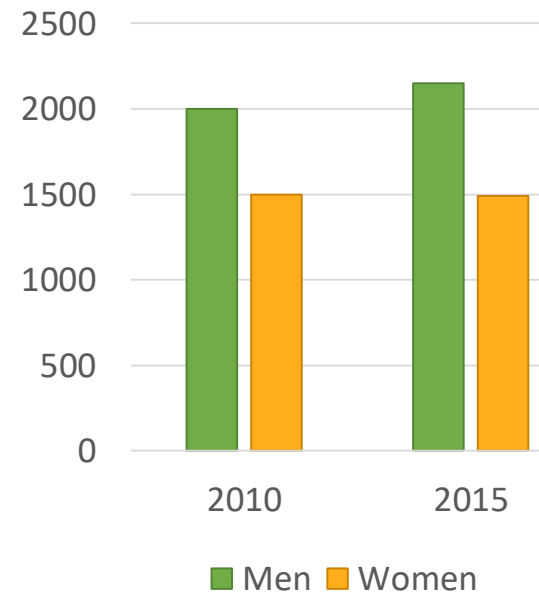
- From now: Focus on individuals who remained in employment five years after diagnosis (N=739).

Evolution of wages disparities

Linear regression with adjustment for socioeconomic and medical variables to analyse wages at diagnosis and five years later,



Median monthly wages at diagnosis and five years later for men and women



Evolution of wages disparities

Linear regression with adjustment for socioeconomic and medical variables to analyse wages at diagnosis,

- 440 €



Variable about the job held at diagnosis:

- Occupation classification (execution job ↘)
- Type of job contract (permanent ↗)
- Employee VS self-employee (↗)
- Working time (part-time job ↗)
- Sector of activity
- Company size (< 500 employees ↘)
- Public sector VS private sector (↗)
- Job tenure (↗)

Individual characteristics :

- Age
- Mother tongue
- Study level (undergraduate ↘)
- Marital status
- Dependent children

Geographic variables:

- Residence area (rural ↘)
- Deprivation index (Low ↘)

Log of Wages 2010

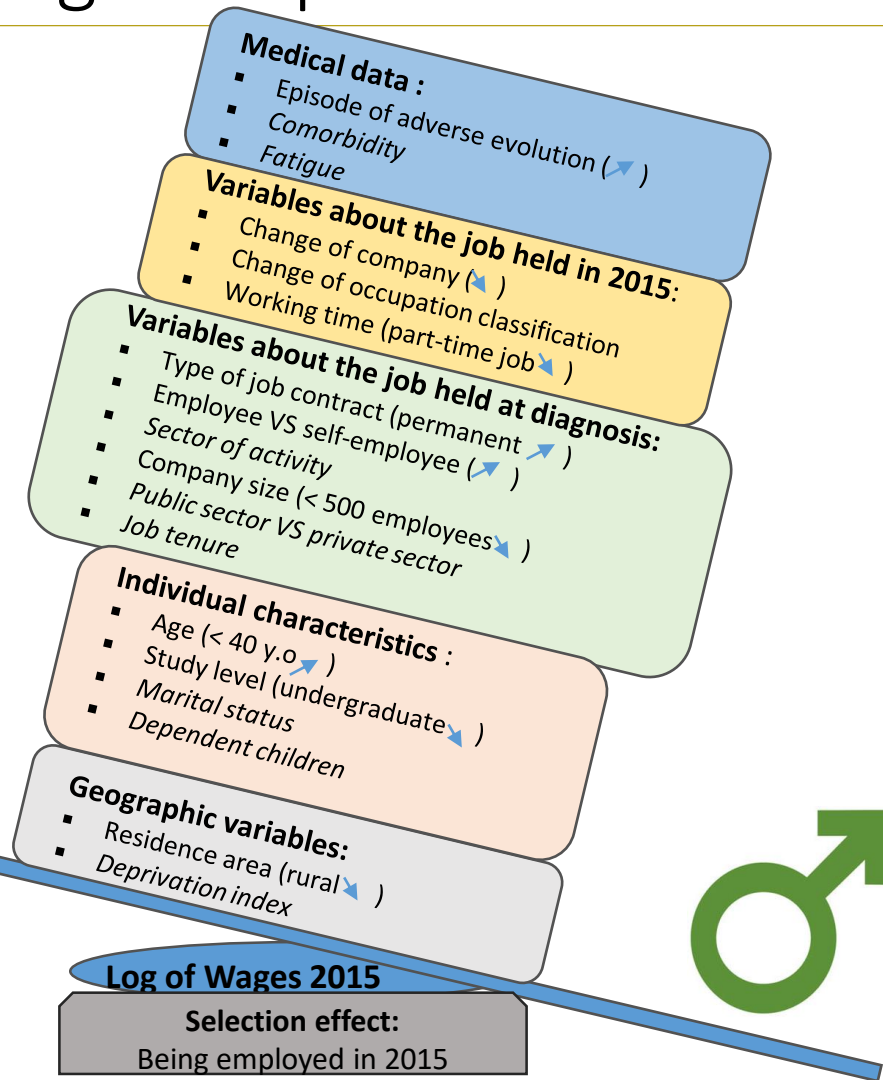
Selection effect:
Being employed in 2010



Evolution of wages disparities

Linear regression with adjustment for socioeconomic and medical variables to analyse wages 5 years after diagnosis,

- 670 € 

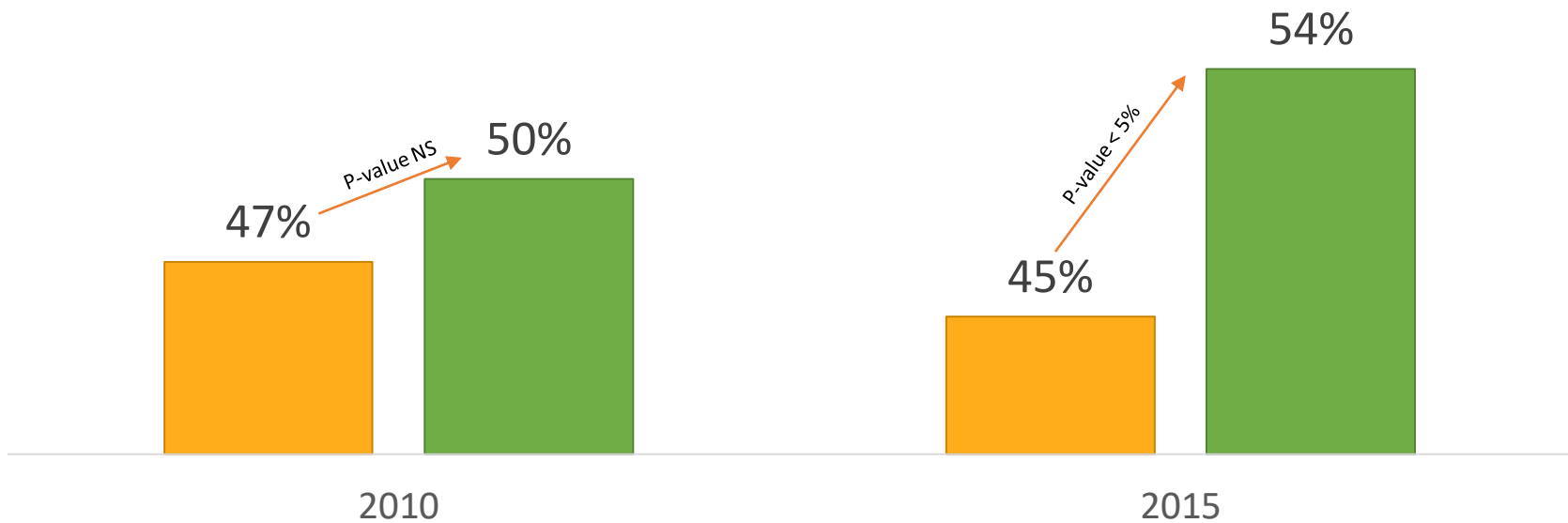


N=739

Evolution of occupation classification

Evolution of the proportion of management posts between diagnostic and five years later

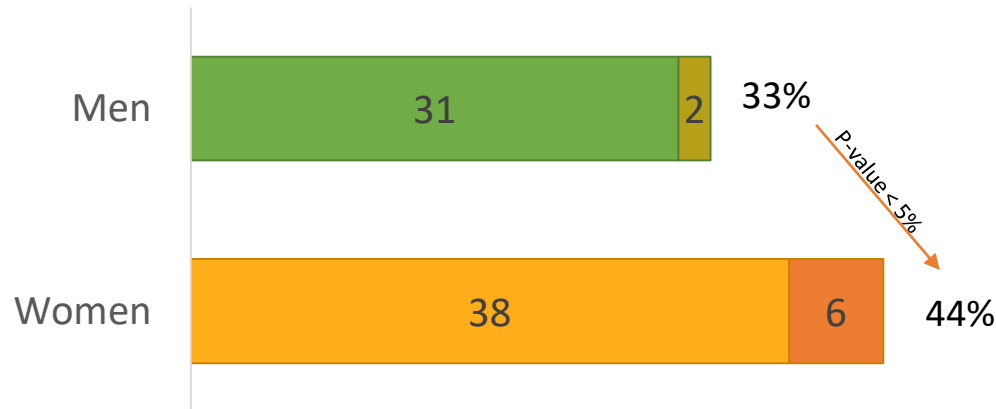
■ Women ■ Men



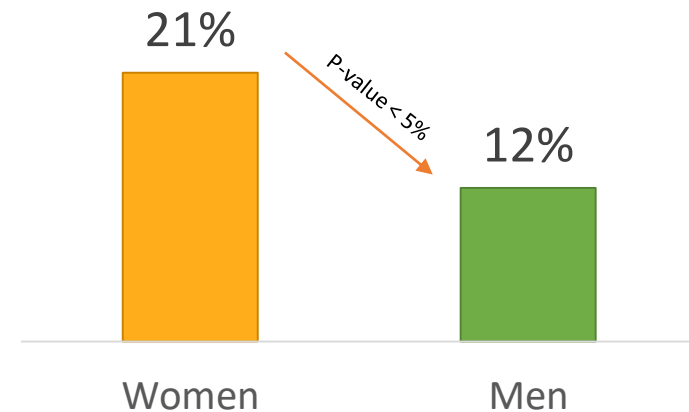
Evolution of working time

- Women were more likely to switch to part-time status than men.
- No gender difference on decrease of working hours

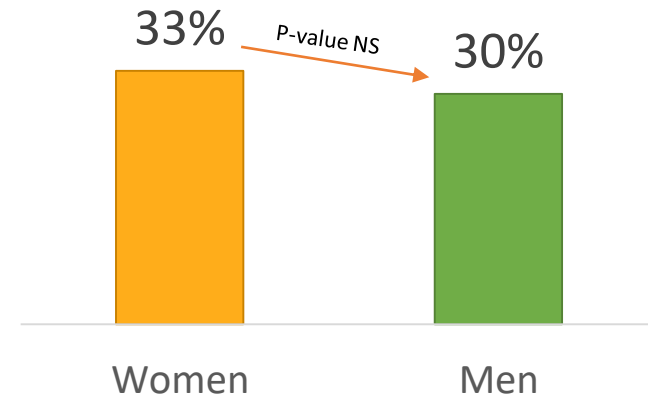
Have had a working time arrangement in the two years following diagnosis



Transition to Part time job between 2010 and 2015



Working hours change between 2010 and 2015

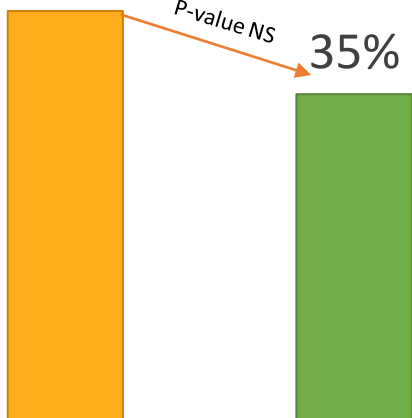


Perceived impact

- Women seems more frequently report a negative impact of cancer on their work than men : wages decrease, discrimination and penalization.

Declared in 2015 that cancer has led to wages depletion

44%
P-value NS
35%

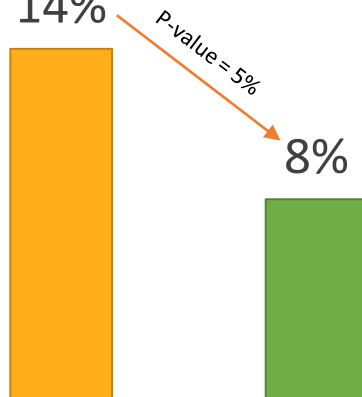


Women

Men

Felt rejected or discriminated at work because of cancer

14%
P-value = 5%
8%

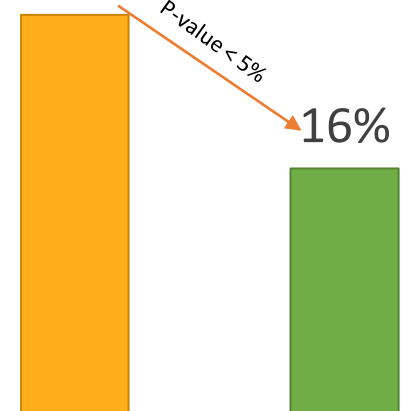


Women

Men

Felt penalized at work because of cancer

26%
P-value < 5%
16%



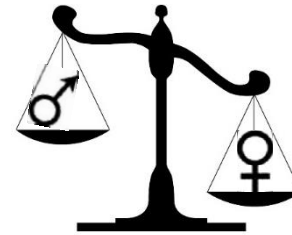
Women

Men

- Those differences were no longer significant when breast cancers were removed.

N=739 (n2=367)

What happens when cancer interferes?



CONCLUSION | Gender inequality on employment in France :
when cancer interferes



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CONCLUSION

Limits:

- Social desirability bias (declaration on wages) could not be assess here;
- More precise data are needed to assess the “sticky floor” and the “glass ceiling”.

Negative impact of cancer :

- Increasing gender gaps in employment and wages,
- Perception of negative impact of cancer higher for women.



Double penalty ?

→ Not true for women without breast cancer : Women are different depending on the tumour site !

More research needed :

- Why cancer survivors stopped working : choice or constraint ?
- For those who remained at work; to what extent do they choose to reduce their working time ?
- Intersectionality : inequality between women according to the tumour site, specificity of breast cancer?

Thank you for your attention
and Thank you to all the
participants !



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