

Evolution of social inequalities in mammographic coverage after the introduction of a breast cancer screening program

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Overview



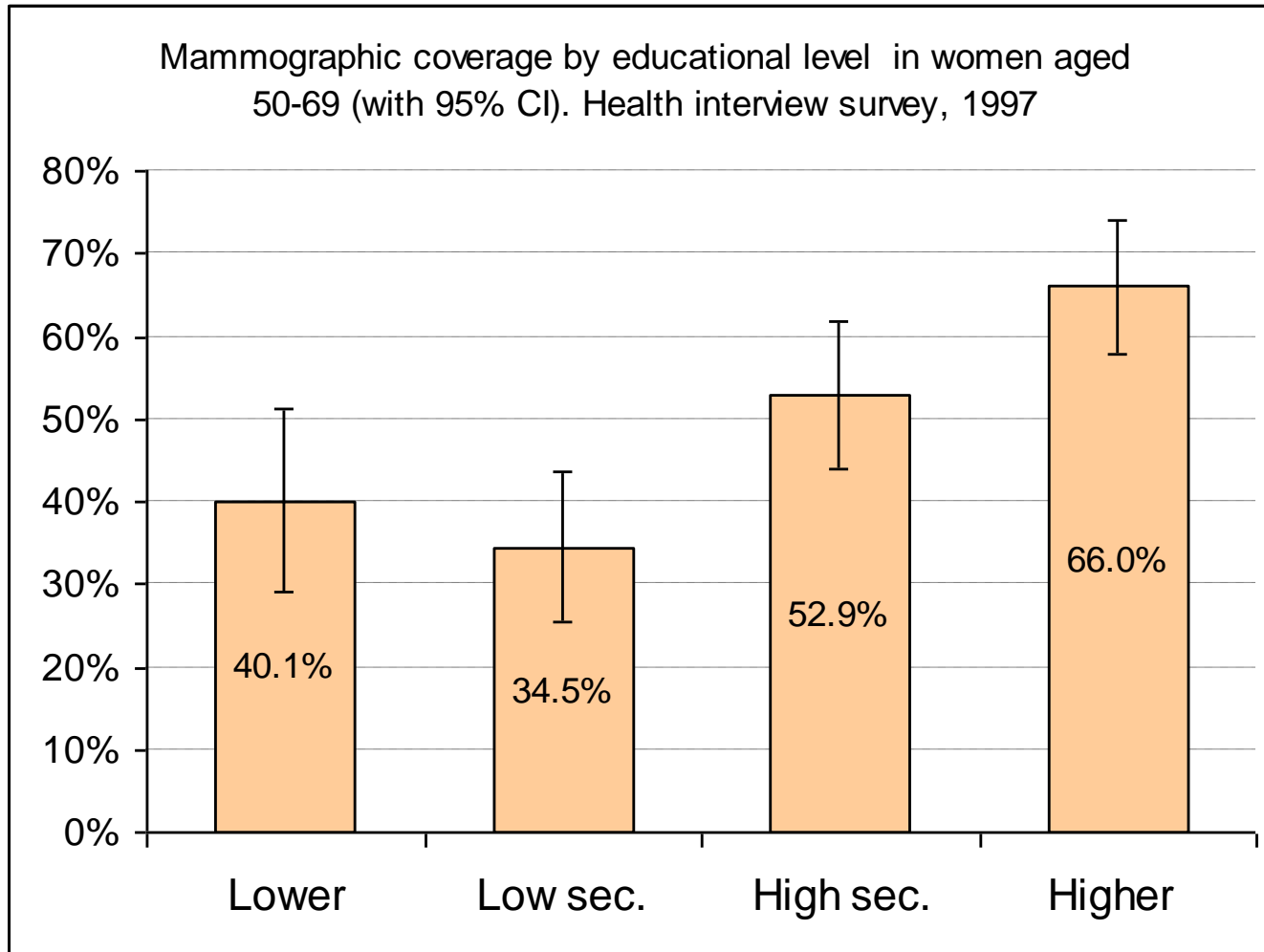
- **Background:**
 - **Breast cancer screening in Belgium**
 - **Socio-economic inequalities in mammographic coverage before the programme**
 - **Research question**
- **Methods:**
 - Data source
 - Indicator for socio-economic status (SES)
 - Socio-economic inequalities measurement
- **Results:**
 - Evolution of mammographic coverage by SES level
 - Inequality indices
 - Evolution of inequality indices
- **Conclusions**

Background:

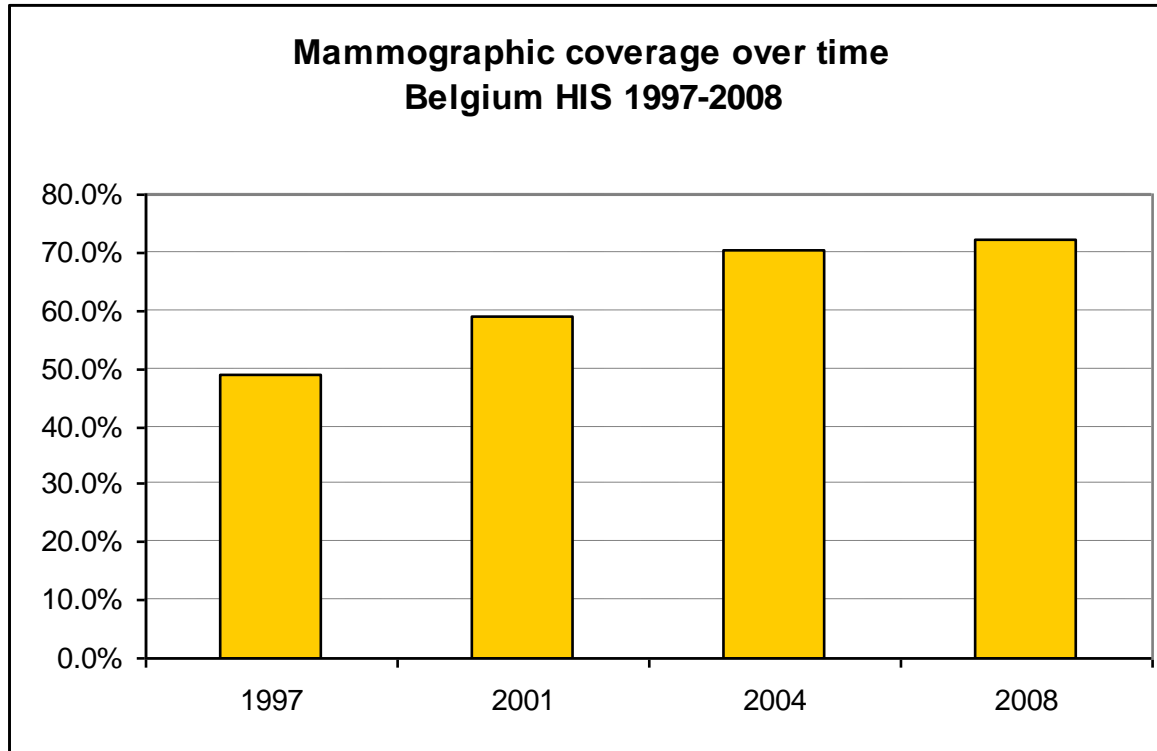
Breast cancer screening in Belgium

- Until 2000: pre-existing opportunistic screening with up to 40% coverage
- 2001-2002: start of a national screening programme
- Coverage increased by 56% (2008)

Background: socio-economic inequalities in mammographic coverage before the screening programme



Research question



Was the increase in mammographic coverage over time accompanied by a change in social inequalities in the coverage?

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Methods: data source



Data from the Health Interview Surveys (HIS):
1997, 2001, 2004, 2008

- Representative random samples of 10.000 inhabitants
- Response rate 60%
- Info on health AND on determinants (no need to match databases)
- Detailed information on socio-economic status
- Self-reported information (reported mammographic rates 10% higher than in administrative data)

Methods: measurements



Indicator of socio-economic status (SES): educational level (4)

Socio-economic inequalities measurements

1. Prevalence of the mammographic coverage by SES
2. Calculation of inequality indices:
 - Absolute difference in prevalence between extreme groups
 - Relative risk (extreme groups)
 - Population attributable fraction
 - Slope Index of Inequality (SII)
 - Relative index of inequality (RII)

Measurement of change:

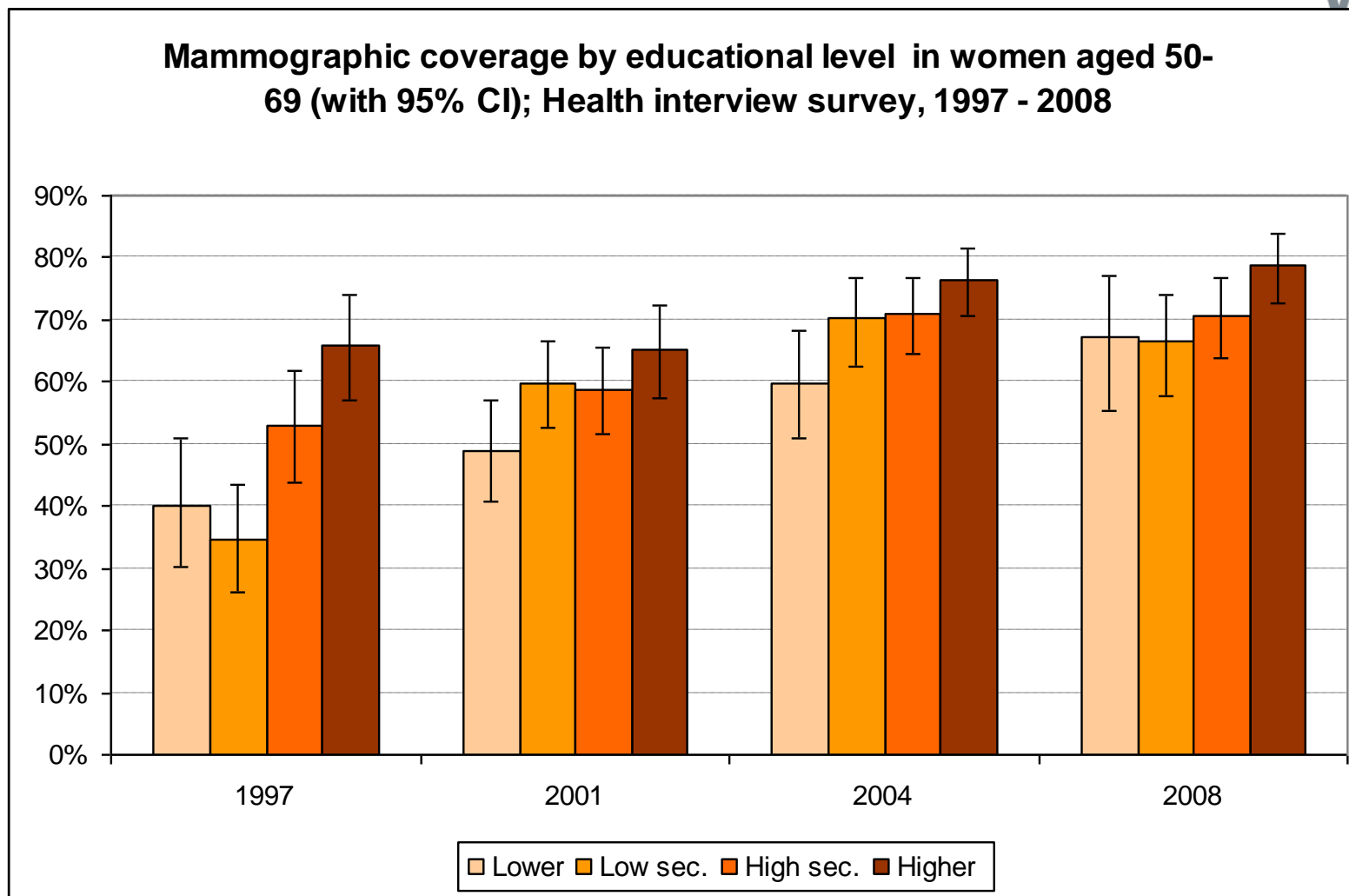
1. Changes between first and last year
2. Calculation of a linear time trend

Overview

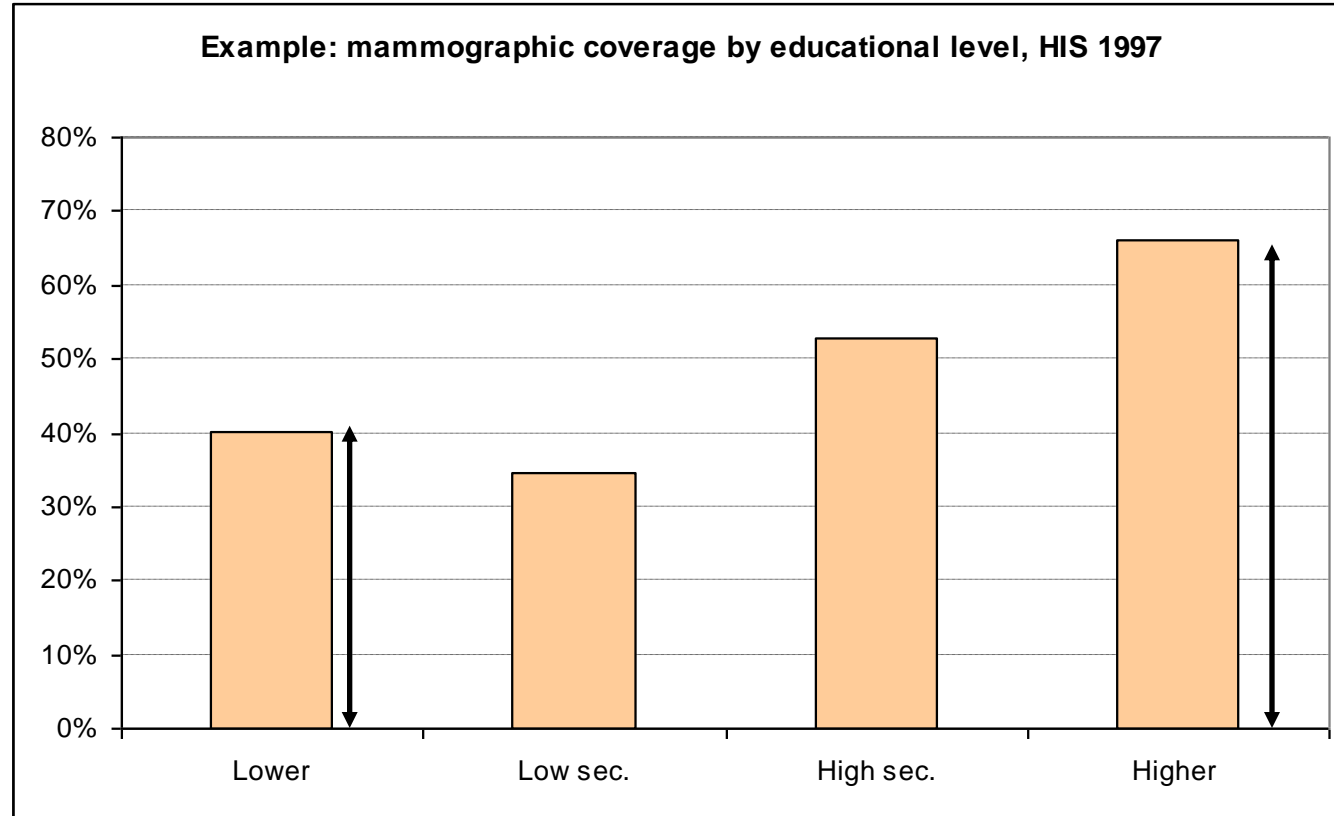


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Evolution of the mammographic coverage by socio economic status

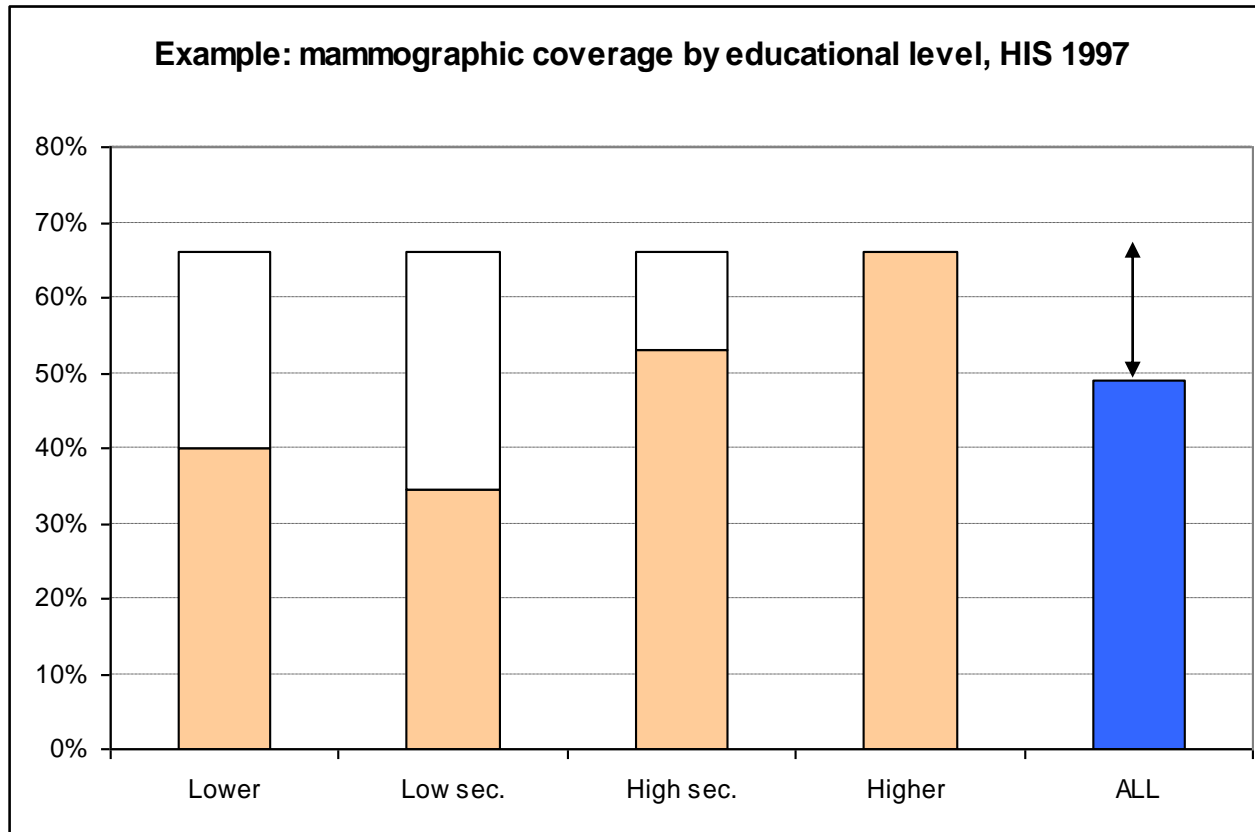


Inequality Indices (1&2): Absolute difference and Relative risk



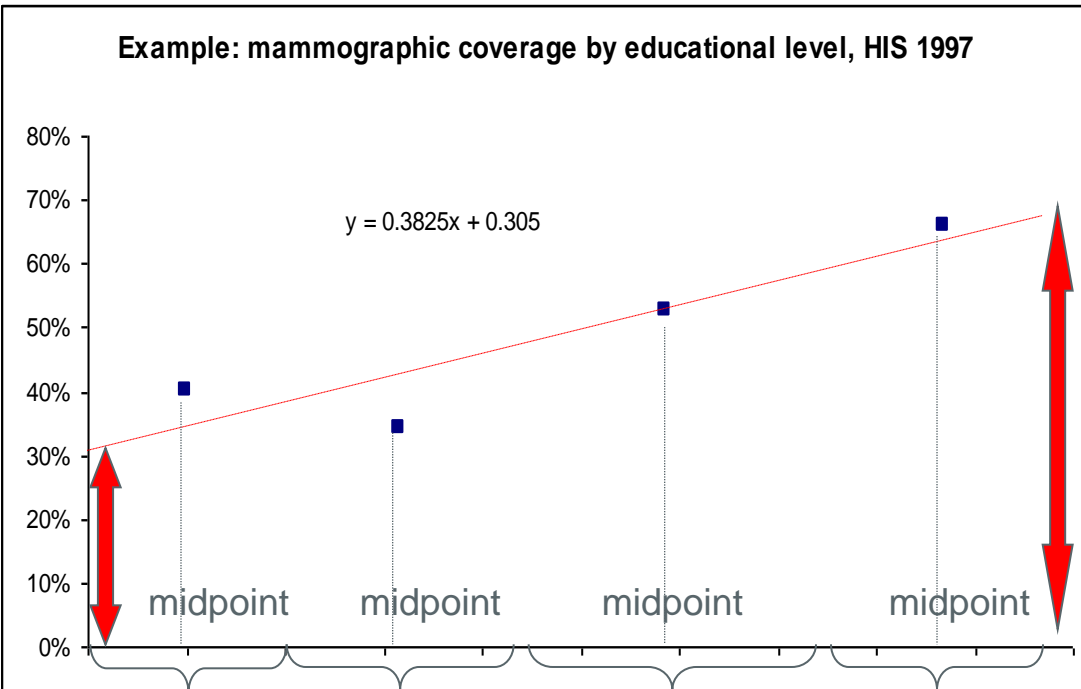
Lowest vs Highest		<i>CI</i>
Absolute Difference	25.9%	[12.4%-39.4%]
Relative risk	0.61	[0.5-0.73]

Inequality index (3): Population Attributable Fraction



PAF	33.0%	<i>CI</i> [32%-34%]
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Inequality indices 4 & 5: Slope & relative indices of inequality



SII	0.38
RII	44%

Low 20%	Sec. low 24%	Sec high 30%	High 26%
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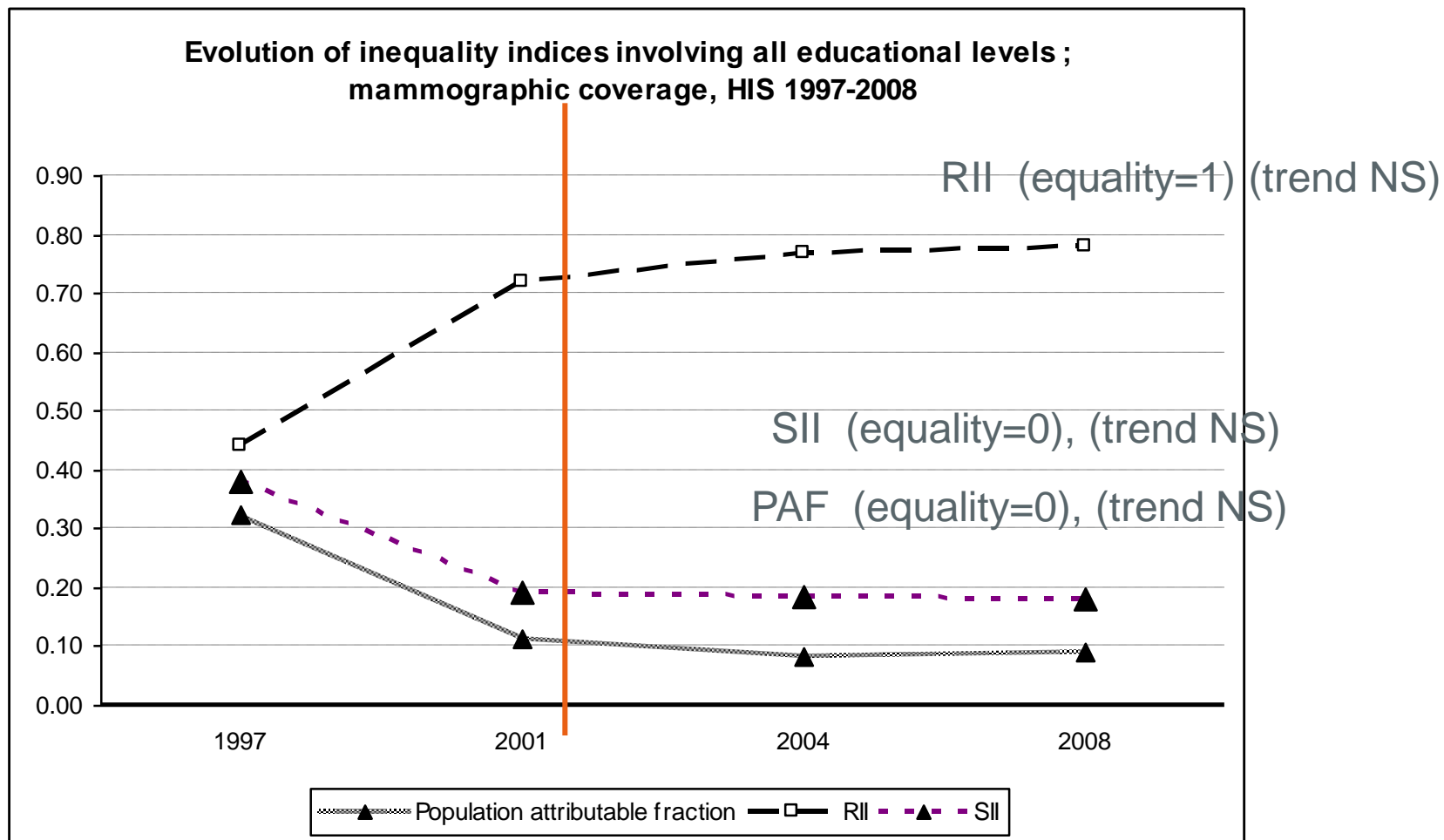
Share of the educational level

Evolution of inequality indices: comparison 1997 versus 2008



	1997	2001	2004	2008	Relative Change (2008-1997)/1997	P value
Absolute Prevalence Difference	25.9%	16.5%	16.6%	11.6%	55.21%	0.13
Relative risk	0.61	0.75	0.78	0.85	40.39%	0.07
Population attributable fraction	-0.33	-0.11	-0.08	-0.09	72.11%	<0.001
Slope index of inequality	0.38	0.19	0.18	0.18	52.87%	0.14
Relative Index of inequality	0.44	0.72	0.77	0.78	76.41%	0.08

Evolution of inequality indices: Trend over time



Conclusions



From 1997 to 2008 :

- Increase of mammographic coverage in all SE levels
- Larger increase in the lower educational levels
-> the SE inequalities have been reduced
BUT.....
- The reduction of the inequalities was mainly observed BEFORE the start of the programme.
- The inequalities remain stable after 2001