



DEPRIVATION AND MASS SCREENING: SURVIVAL OF WOMEN WITH BREAST CANCER IN GIRONDE CANCER REGISTRY, IN FRANCE IN 2008-2010

Marie Poiseuil, Gaëlle Coureau, Catherine Payet, Marianne Savès, Marc Debled, Simone Mathoulin-Pelissier, Brice Amadeo

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General Cancer Registry of Gironde, Bordeaux

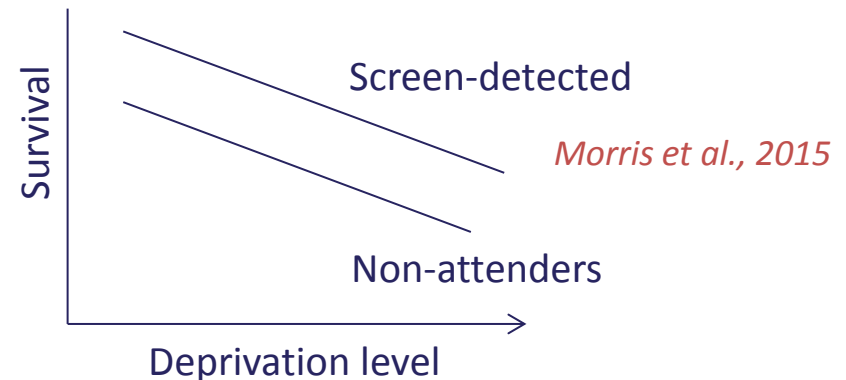
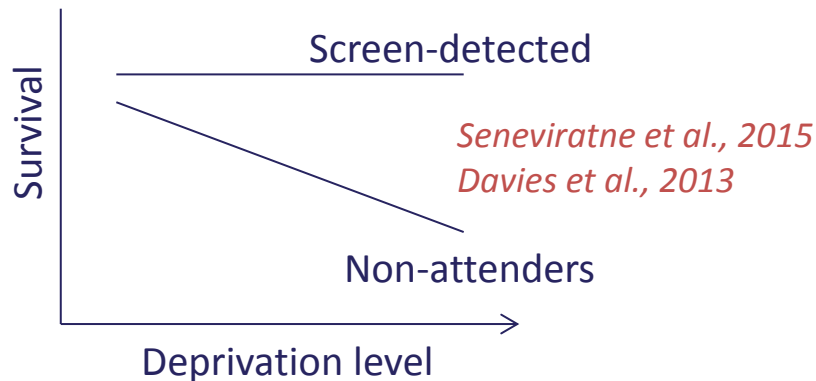


Background (1/2)

- **Breast cancer is the most common cancer in women in France**
(Santé Publique France, 2016)
 - In 2017, in France
 - Incidence estimated at over 59,000 new cases
 - 1st cause of mortality in women: around 12,000 deaths
 - Relative survival at 5 years: 87%
- **Mass screening programs (MSP)**
 - Women aged 50 to 74 years invited to perform mammography every 2 years
 - Reduce breast cancer mortality in the general population
 - In France, around 50% of participation << 70% European target
- **Low participation rate in MSP can be explained by**
 - Use of opportunistic screening (HAS, 2011)
 - Socio-demographic inequalities (INCa)

Background (2/2)

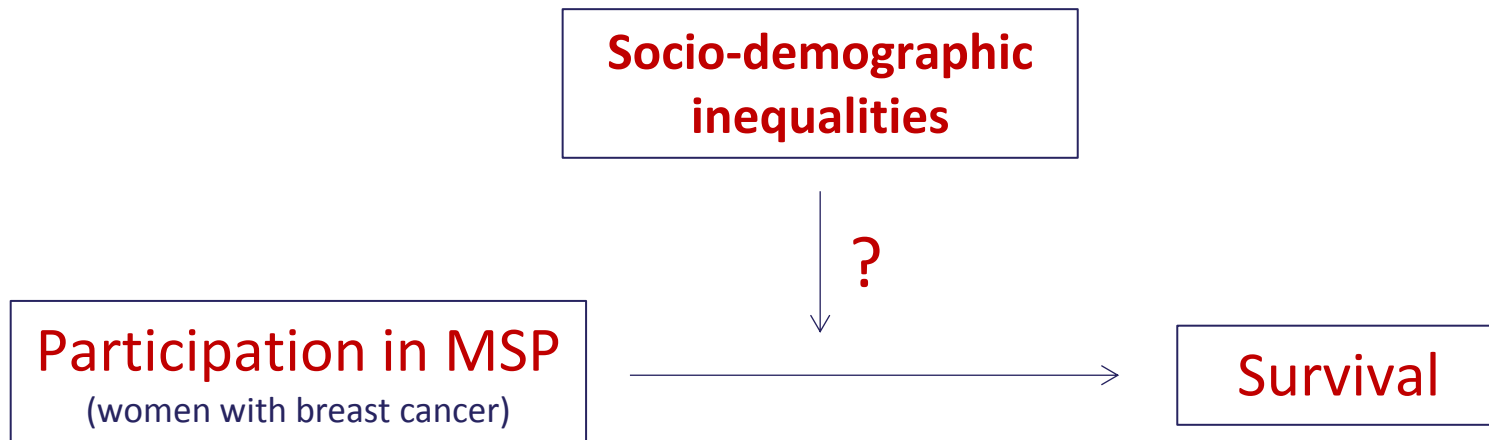
- In France, women living in the most deprived areas
 - **participated less in MSP** (Ouédraogo et al., 2015)
 - were diagnosed with a **more advanced stage** of cancer (Dialla et al., 2015)
- Role of socio-demographic inequalities **on the survival** according to participation in MSP



→ In France, no study has described the socio-demographic inequalities and survival of women with breast cancer based on their participation in a MSP

Objective

- Evaluate the role of **socio-demographic inequalities** on the association between **participation in MSP** and **survival** in women with breast cancer in Gironde and after correcting for lead time bias.



- **Population study**

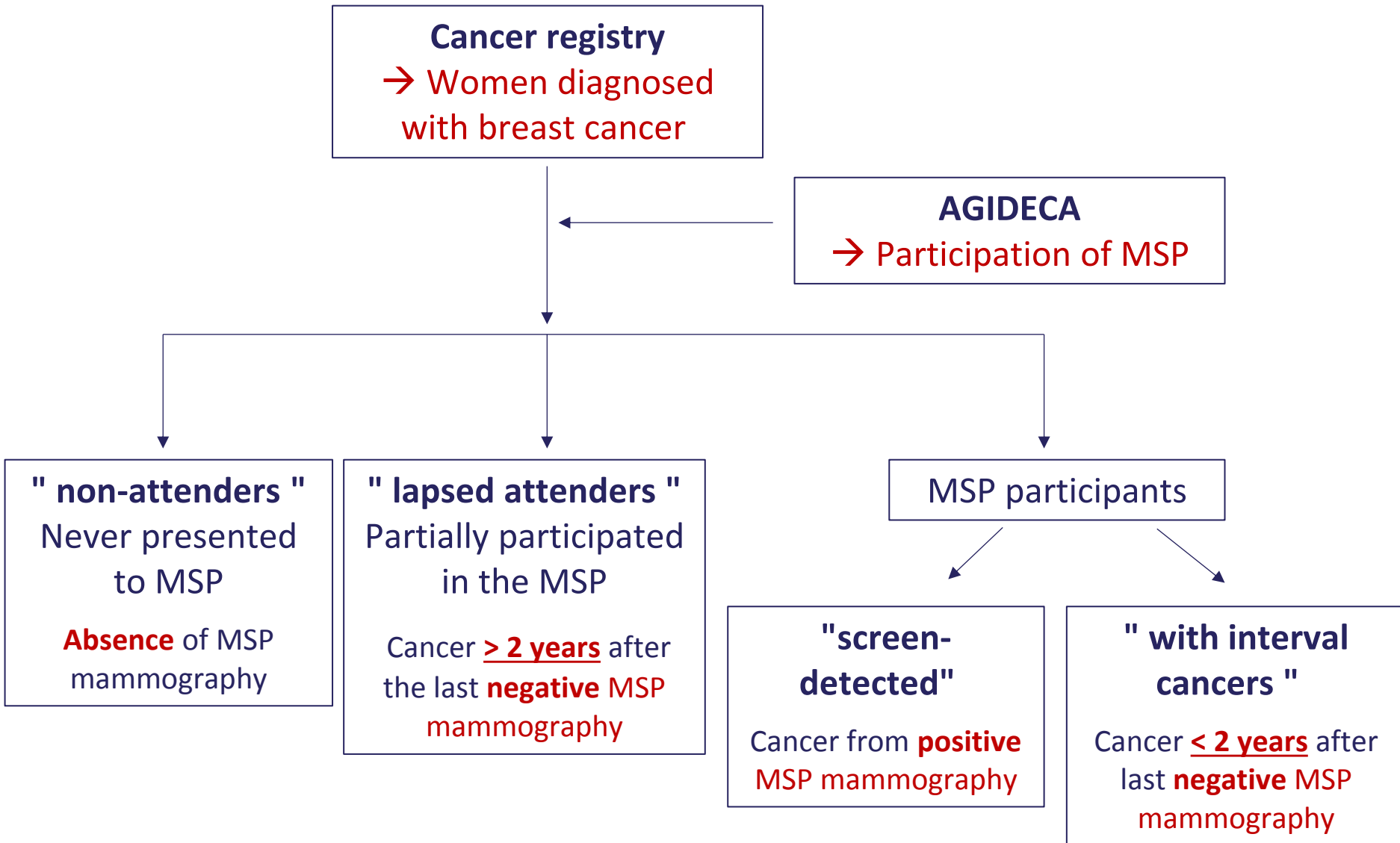
- Women with breast cancer diagnosed between 2008 and 2010
 - Selected in situ or malignant tumours
- Aged between 50 to 74 years
- Living in Gironde, French department

- **Data sources**

- General registry of cancer of Gironde
- Organization for cancer screening of Gironde : « Dépistage des cancers Centre de coordination Nouvelle-Aquitaine, Site territorial de Gironde » previously « AGIDECA »

→ Crossover between the 2 data sources

Methods (2/3)



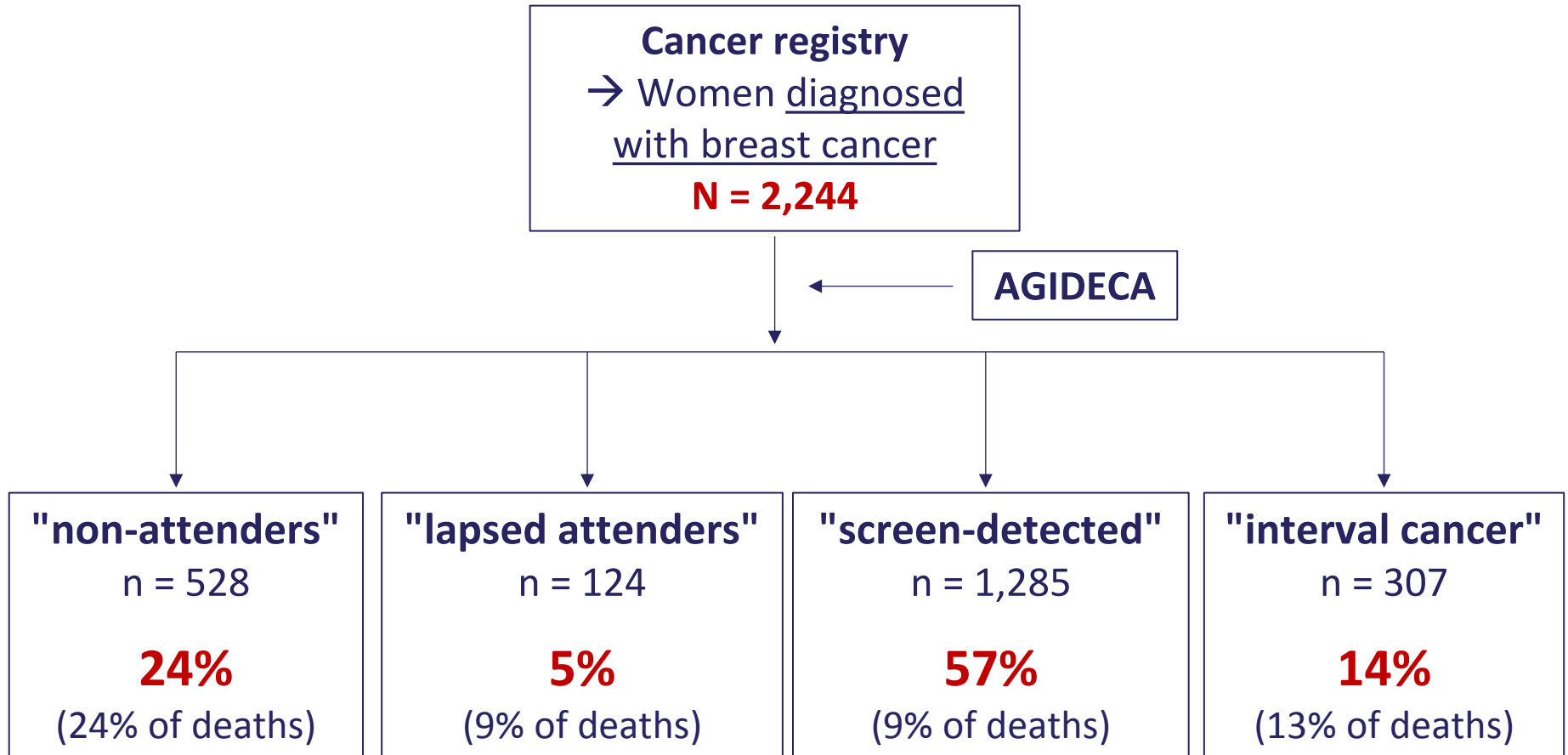
Methods (3/3)

- **Deprivation level:** French EDI (« European Deprivation Index »)
 - Aggregate score attributed to each woman according to their residence address
 - Use of the score in quintiles



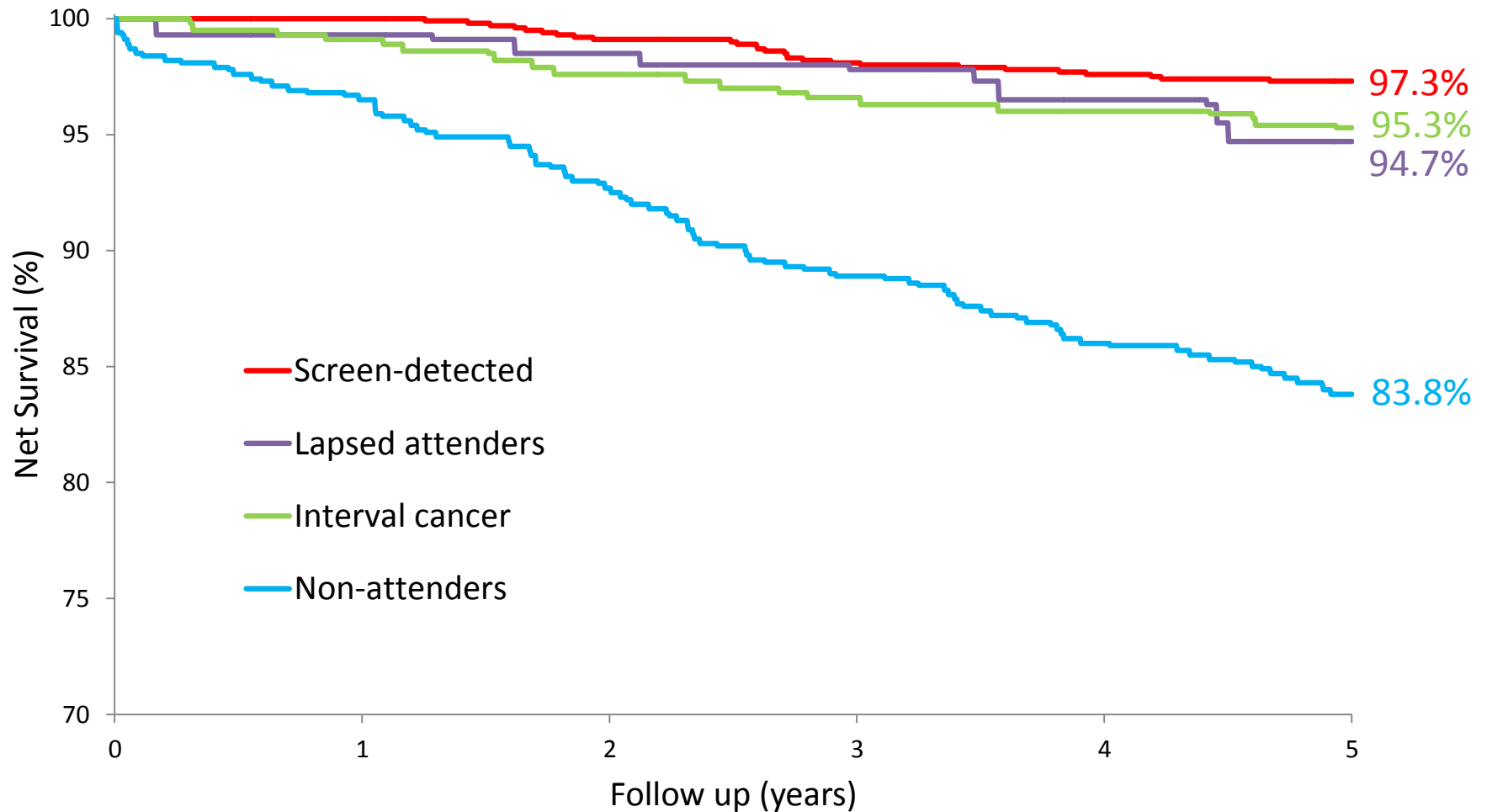
- **Statistical analysis**
 - Net survival
 - Net survival rates at 5 years (Pohar-Perme method)
 - Lead time bias
 - Estimation to the additional survival time due to screening (Duffy method)
 - Application of this correction on screen-detected group : "**screen-detected with correction**"

Results (1/3)



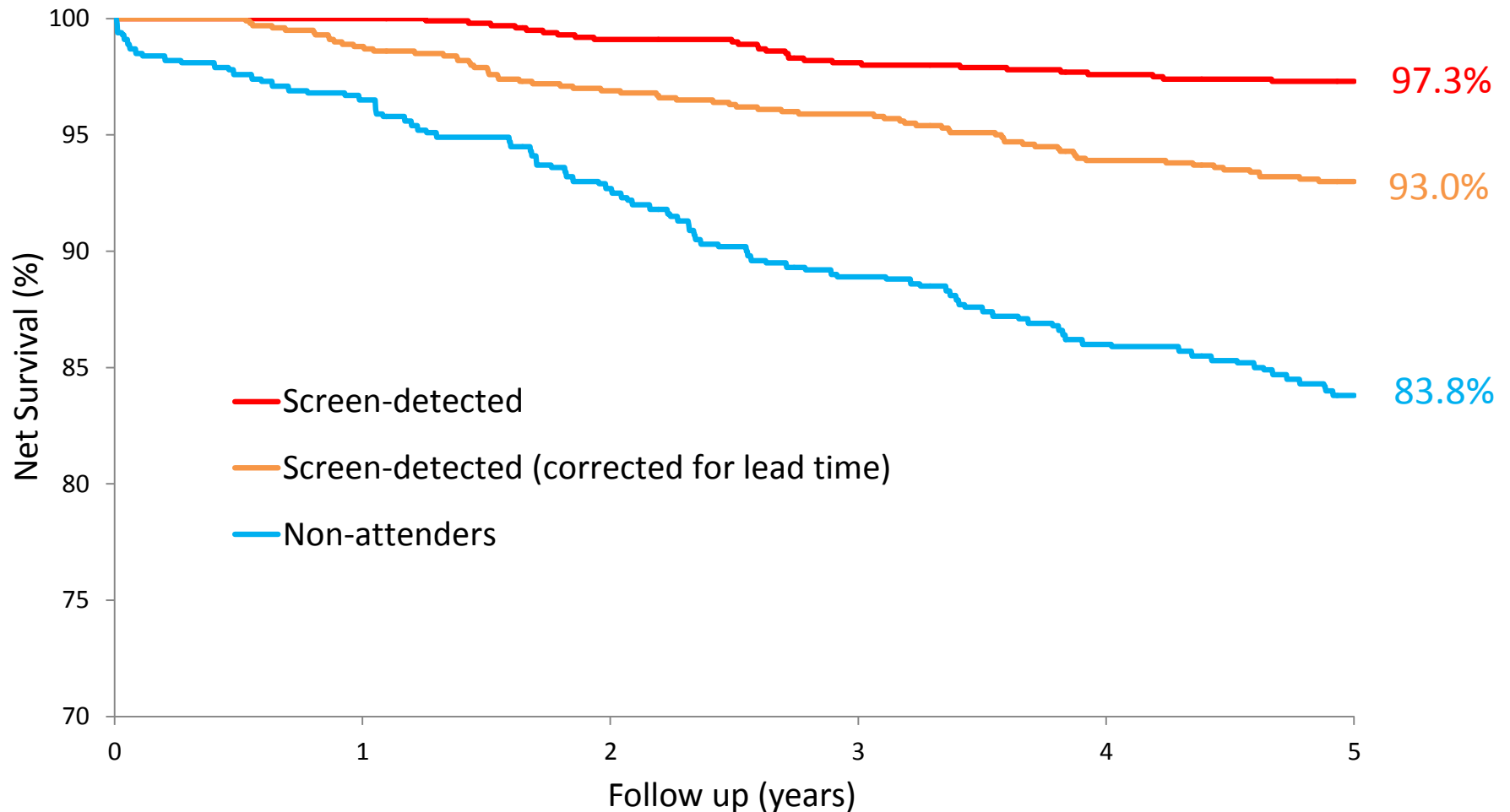
Results (2/3)

- Net survival at 5 years according to groups



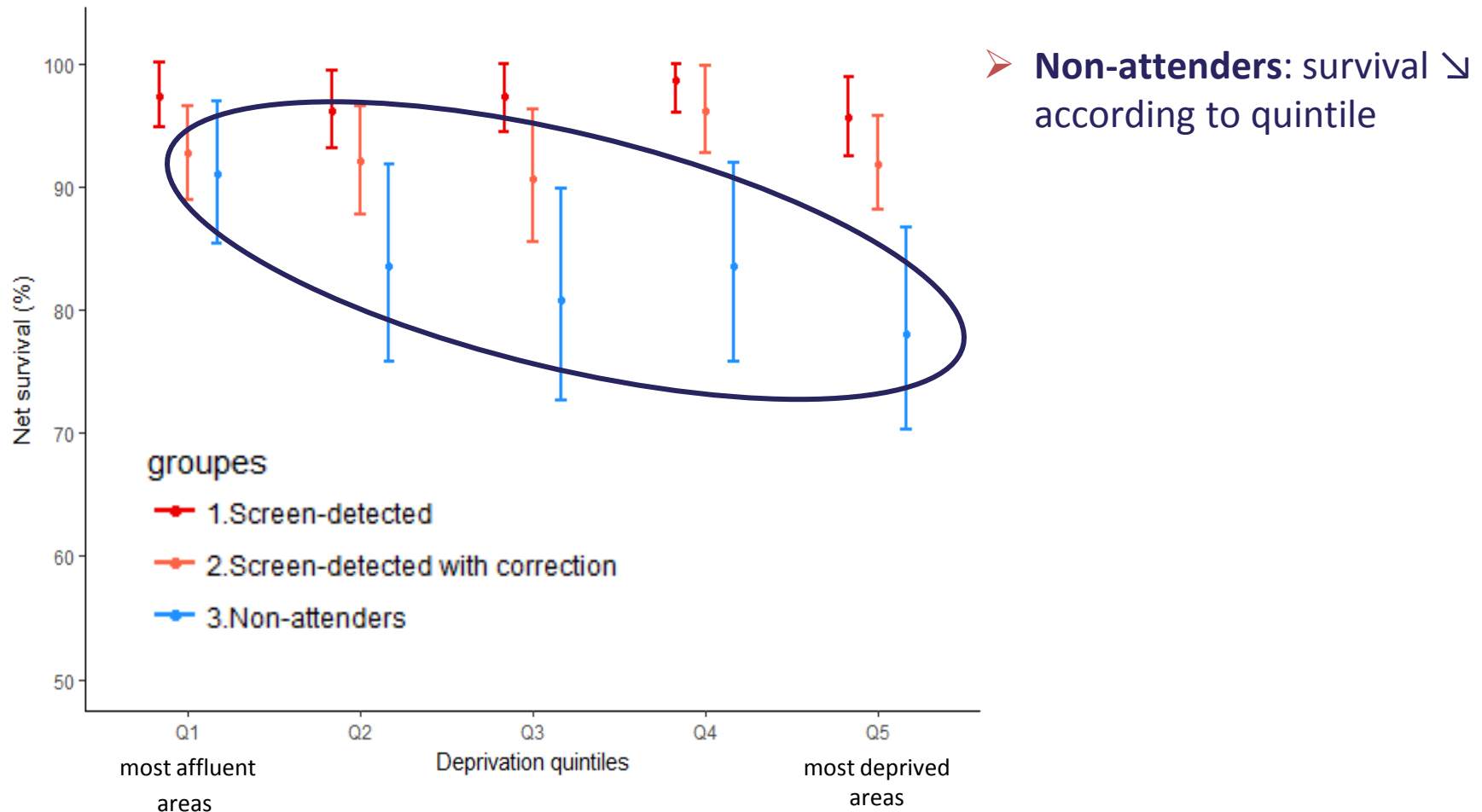
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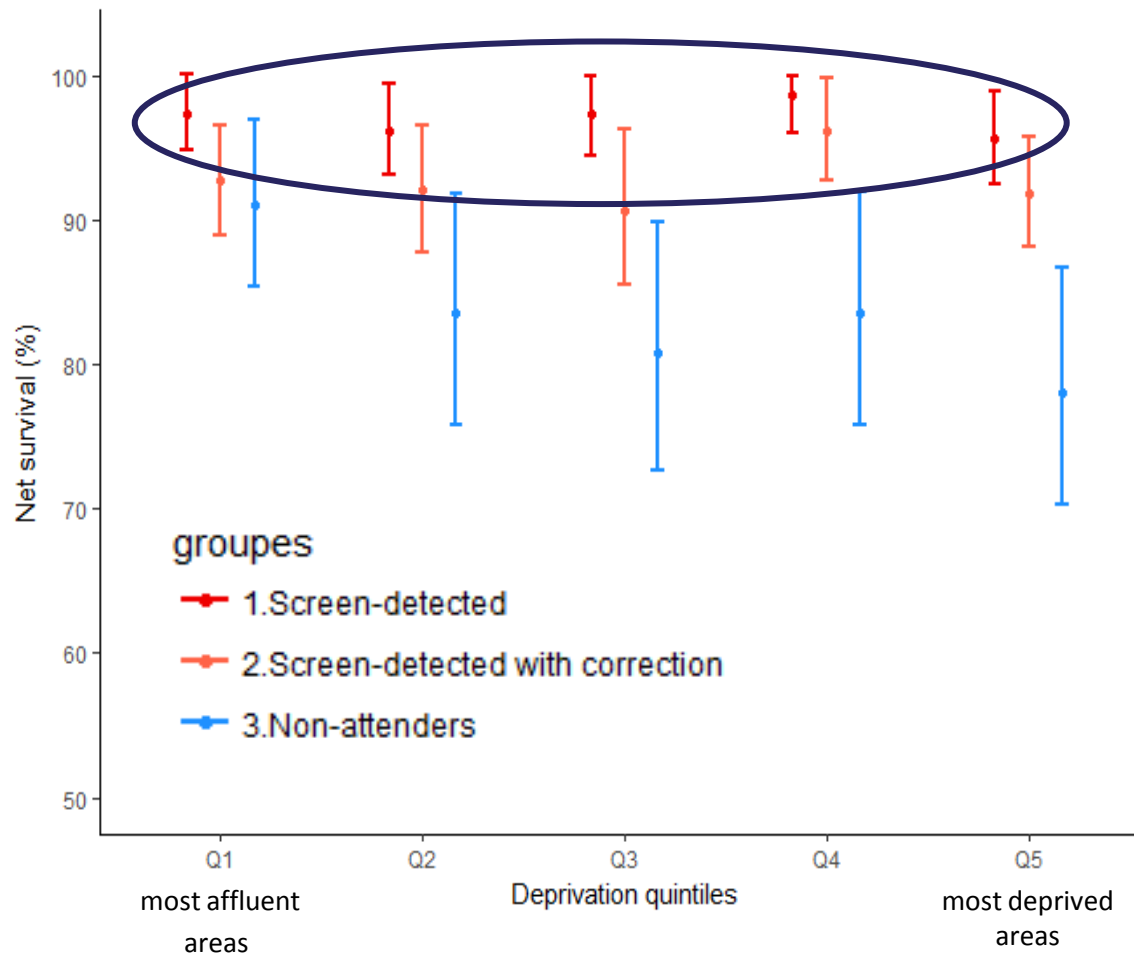
Results (3/3)

- Net survival for **screen-detected** and **non-attender** women (n=1,813)



Results (3/3)

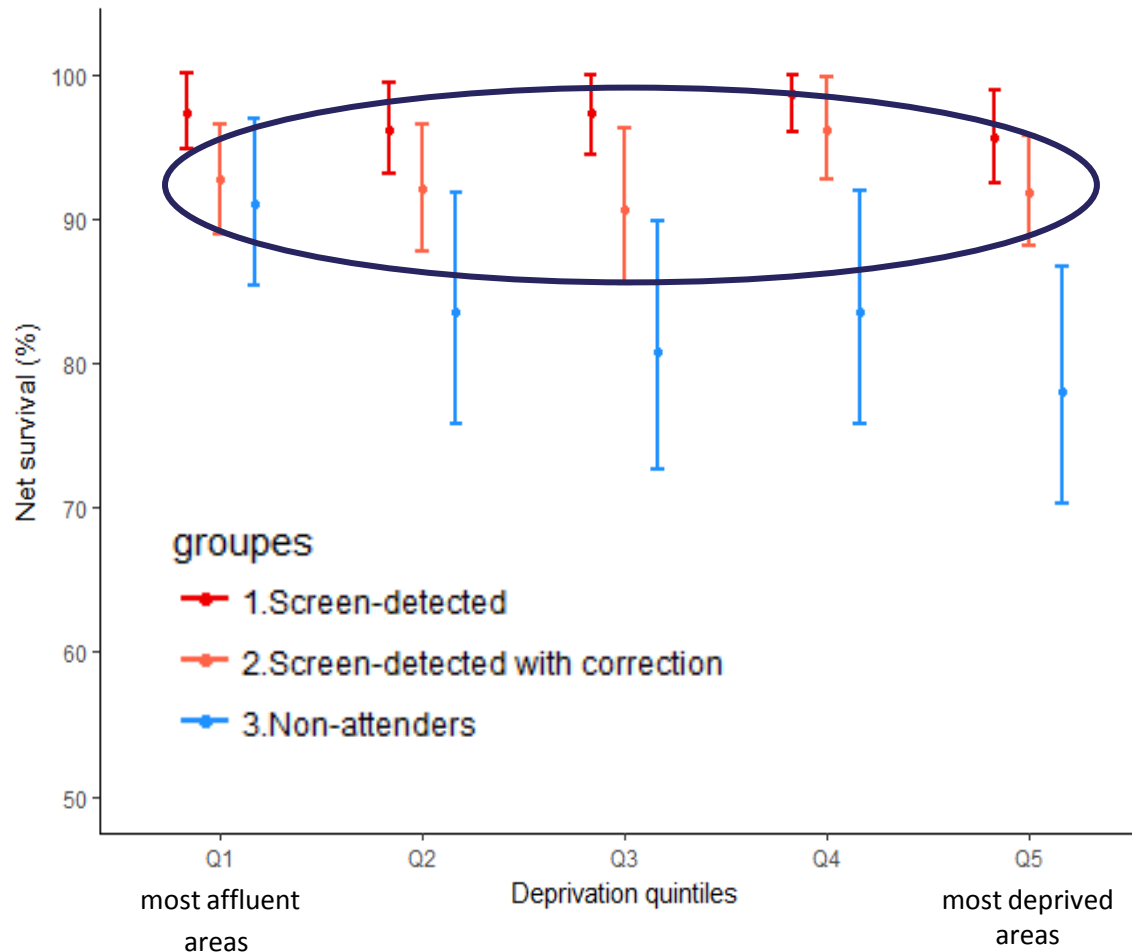
- Net survival for **screen-detected** and **non-attender** women (n=1,813)



- **Non-attenders:** survival \searrow according to quintile
- **Screen-detected:** survival \approx in each quintile

Results (3/3)

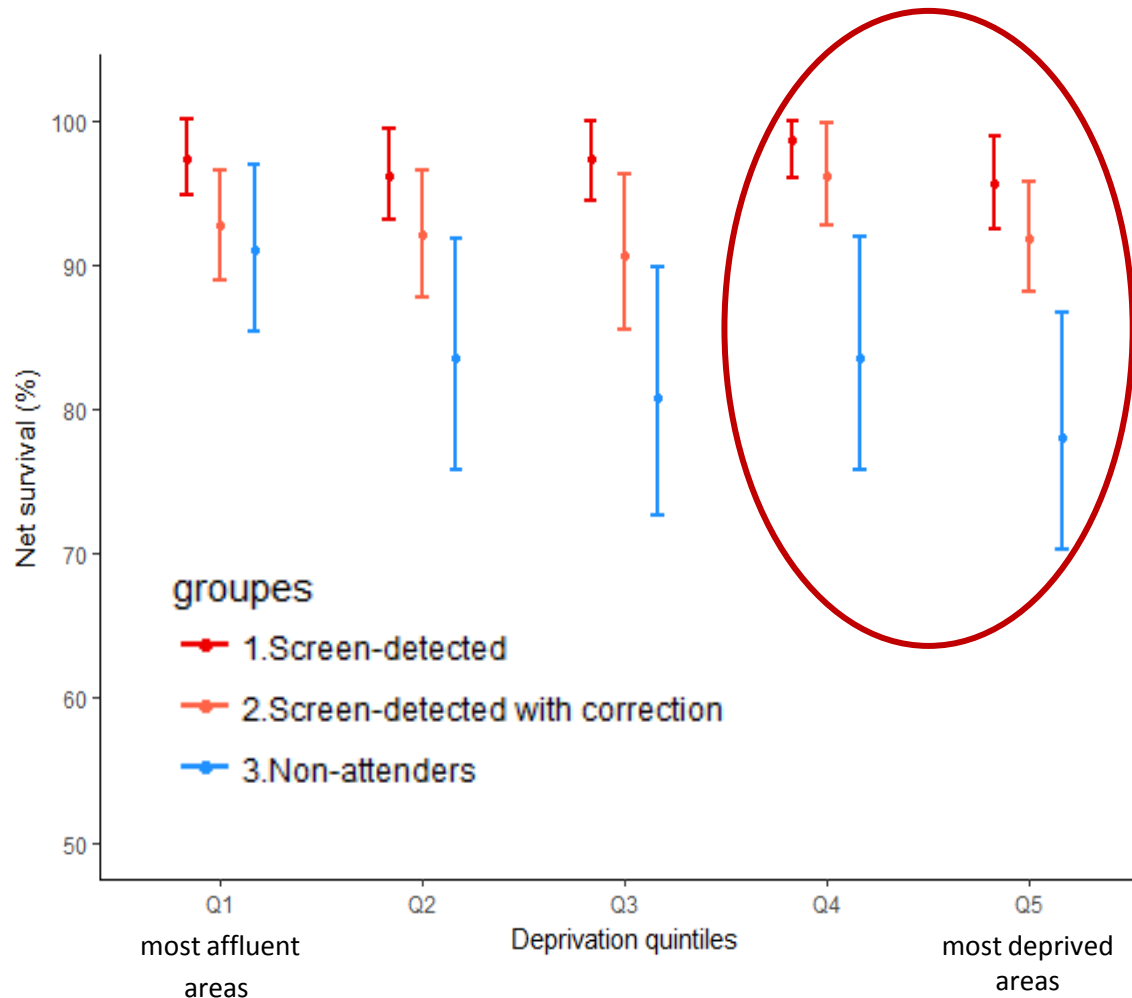
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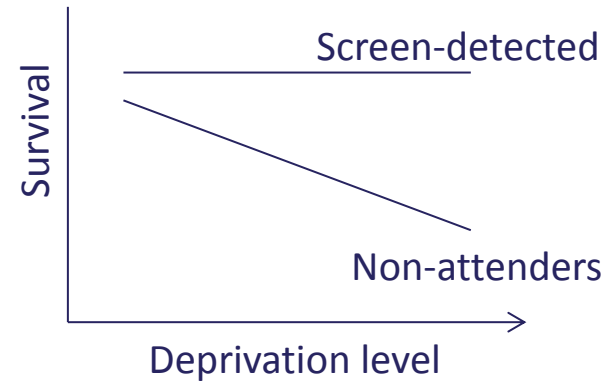
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- **Screen-detected:** survival \approx in each quintile
- After adjustment for lead time, survival **remained higher than those of non-attender women in each quintile**
- **Significant difference** between screen-detected and non-attender women **in the most deprived areas**

Conclusion

- When **women do not participate in MSP**: difference in survival by level of deprivation
- When **women participate in MSP**: very good survival at 5 years regardless of the level of deprivation



→ In the **most affluent areas**, no survival difference is observed between the 2 groups: **opportunistic screening ?**

→ The **potential effect of MSP** on survival seemed more important for women **in most deprived areas**

Thank you for your attention