

## **A METHOD TO INTEGRATE INFORMATION FROM DIFFERENT DATA BASES TO MONITOR EQUITY IN BREAST CANCER CARE PATHWAY. THE EXPERIENCE OF EMILIA-ROMAGNA REGION.**

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### **Introduction**

Equity in health is a relevant Public Health issue, but up to now current health database (DB) do not provide any information about individual socioeconomic status (SES).

Breast cancer care is a well documented subject, for which still important SES related inequalities have been reported.

### **Objectives**

To describe methods to integrate information from different DB making possible the monitoring of equity in breast cancer care and survival.

### **Methods**

Starting from a cohort of breast cancer women residing in Emilia-Romagna, a multistep procedure of deterministic record-linkage with different data sources was performed.

An anonymous identifier code (IC) was attributed to the incident cases 1997-2005 registered by the regional breast cancer registry (BCR), according to the privacy protection rules.

BCR data were linked with the Hospital Discharge register (HDR), Mortality register (MR), Specialist access register (SR) and Census of Population obtaining respectively: comorbidity, 5-year survival status and cause of death, a set of quality of care indicators (e.g. radiant therapy one year post diagnosis) and individual SES information.

Linkage between BCR, HDR, SR and MR was performed using the IC, while the Census DB were merged using birth' date and municipality, plus residence, as linkage key.

The link percentage was analysed according to the socio-demographic and health condition to assess selection bias in the sub-cohort with SES information.

### **Results**

Out of 30.398 incidence cases, 62.8% were linked with the Census data. Young (<45yo) and residents in big municipalities are less likely to be linked with Census data. No difference between linked and not linked subjects was observed according to the status at diagnosis and survival.

### **Conclusions**

An integrated information system is a very useful tool allowing to investigate health outcomes such as care pathway and survival according to individual SES. This work can also be extended to other diseases of interest.