



Greater Poland Cancer Registry

The impact of breast cancer screening on cancer staging at diagnosis in the Greater Poland region

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BACKGROUND

The Early Detection Breast Cancer Program was implemented in Poland in 2005. Software used to run the program does not collect data on cancer staging at diagnosis, as required by the European guidelines for quality assurance in breast cancer screening and diagnosis. Therefore, population-based epidemiological studies on the effectiveness of breast cancer screening in Poland depend on data gathered by Cancer Registries, i.e. cancer staging at diagnosis and participation in screening.

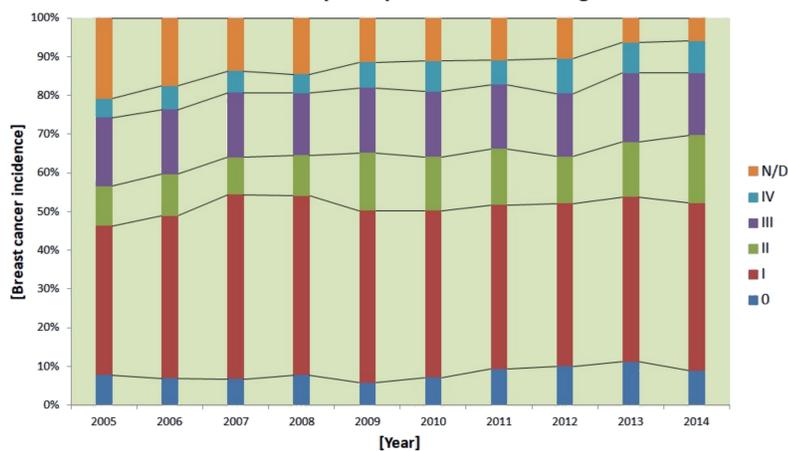
METHODS

Cancer staging at the time of diagnosis was compared in 9,568 patients aged 50-69 participating and not participating in screening between 2005 and 2014. The "Cochran-Armitage test for trend" was used in statistical analysis with a 0.05 significance level. Calculations were performed using PQStat v1.6.6

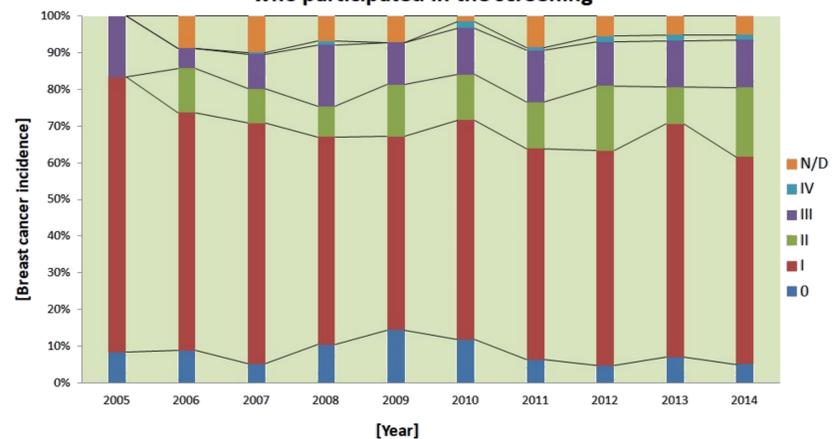
RESULTS

In the study population most patients were diagnosed with stage I breast cancer (4588; 48%), and patients with stage IV breast cancer at diagnosis were the smallest group (483, 5%). Overall 30% of women diagnosed with breast cancer participated in screening. Screening participation varied significantly ($p < 0.0001$), and was correlated to disease severity at diagnosis: for stage I 59% (screening) vs. 43% (no screening), stage II 13% vs. 13%, stage II 13% vs. 17%, stage IV 1% vs. 7%.

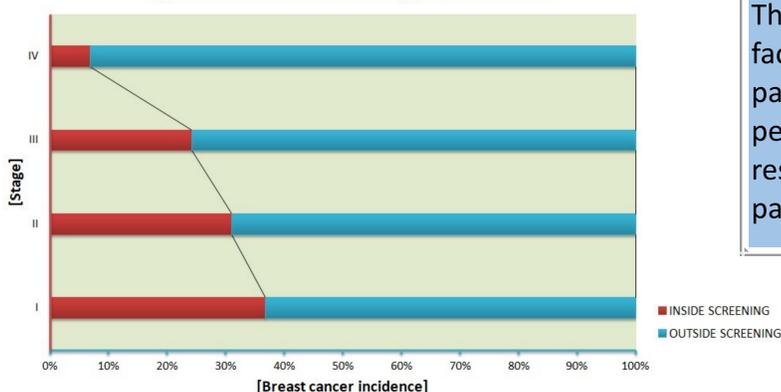
Breast cancer stage in women aged 50-69 in Greater Poland, who did not participate in the screening



Breast cancer stage in women aged 50-69 in Greater Poland, who participated in the screening



Breast cancer stage in the moment of diagnosis in women aged 50-69 in Greater Poland, years 2005-2014



DISCUSSION / CONCLUSION

The purpose of screening is reduction of mortality. The most important prognostic factor in breast cancer is staging at diagnosis. Our results indicate that women who participated in screening were diagnosed with less advanced cancer, this applies especially to stage I and stage IV patients. It is worth noting that the above-mentioned results were obtained despite the lower than recommended by the EC screening participation rate of 70% (51% for Greater Poland).

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