(FEV1), HDL-cholesterol (HDL), body mass index (BMI), systolic blood pressure (BP), and glycated haemoglobin (HbA1c). In men, those in stable manual and upward (vs stable non-manual) class categories showed higher BMI, HbA1c and BP, and lower HDL and FEV1 (p<0.10). Limited development was associated with higher BMI and HbA1c, and lower FEV1 (p<0.05). In women, those in the stable manual class had lower HDL and FEV1, and higher HbA1c (p<0.05). Downward mobility was associated with lower HDL (p=0.018). Compensatory development was associated with higher FEV1 (p<0.05). In both sexes, the socioeconomic- and developmental plasticity- biomarker associations remained significant in the combined analysis. Socioeconomic circumstances and developmental plasticity were associated with negative biomarker outcomes, although they follow independent associative pathways.

Introduction Adherence to breast cancer screening is affected by presence of previous false-positives and regular participation in previous invitations. Our aim was to estimate the long-term adherence to breast cancer screening and how false-positive and women’s characteristics affect the probability of re-attending screening.

Methods Retrospective Cohort study of women aged 45–69 years invited to participate in any of 10 Spanish breast cancer screening programs between 1990 and 2006. Discrete time hazard models were used to estimate re-attendance probabilities, and to evaluate the effect of false-positives and women’s characteristics on re-attendance probabilities.

Results We analysed information from 1,571,218 screened women who underwent 4,545,346 screening mammograms. The re-attendance probability was 81.7% (95% CI 81.63 to 81.76) at first screening, 88.1% (95% CI 87.98 to 88.12) at 3rd screening, and 95.6% (95% CI 95.52 to 95.73) at 6th screening. Women without a false-positive result were more likely to return to the following screening invitation. The re-attendance probability at first screening was 79.3% (99% CI 79.0–79.6) and 85.3% (99% CI 85.2–85.4) for women with and without a false-positive result, respectively. At sixth screening was 94.6% (99% CI 93.8–95.4) and 96.0% (99% CI 95.8–96.1), respectively. The factors associated with a higher risk of falling to re-attend the following screening invitation were: age 65–69 years (OR=8.48; CI 3.51–20.65), missing the first screening invitation (OR=1.12; CI 1.11–1.14), and previous invasive procedures (OR=1.09; CI 1.07–1.10).

Conclusion False-positive results and other women’s characteristics affected the re-attendance to subsequent screening invitations. This information could be useful to provide the maximum available information to women invited to participate and improve compliance in subsequent screening invitations.