

## Effectiveness of organised versus opportunistic mammography screening

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**Background:** Detailed comparison of effectiveness between organised and opportunistic mammography screening operating in the same country has seldom been carried out.

**Patients and methods:** Prognostic indicators, as defined in the European Guidelines, were used to evaluate screening effectiveness in Switzerland. Matching of screening programmes' records with population-based cancer registries enabled to compare indicators of effectiveness by screening and detection modality (organised versus opportunistic screening, unscreened, interval cancers). Comparisons of prognostic profile were also drawn with two Swiss regions uncovered by service screening of low and high prevalence of opportunistic screening, respectively.

**Results:** Opportunistic and organised screening yielded overall little difference in prognostic profile. Both screening types led to substantial stage shifting. Breast cancer prognostic indicators were systematically more favourable in Swiss regions covered by a programme. In regions without a screening programme, the higher the prevalence of opportunistic screening, the better was the prognostic profile.

**Conclusions:** Organised screening appeared as effective as opportunistic screening. Mammography screening has strongly influenced the stage distribution of breast cancer in Switzerland, and a favourable impact on mortality is anticipated. Extension of organised mammography screening to the whole of Switzerland can be expected to further improve breast cancer prognosis in a cost-effective way.

**Key words:** breast cancer, effectiveness, mammography screening, Switzerland