

Abstract Submissions

Confirmation of Abstract

Abstract Number 316895 has been updated.

Abstract Information

Abstract Type: Contributed

Sub Type: Papers

Sponsor: Section on Statistics in Epidemiology

Track: Miscellaneous

Title: Population data to measure mortality reductions produced by organized cancer screening: analyze with care

Abstract: Although many of the trials were carried out decades ago, and did not necessarily produce valid or precise estimates of the reductions that might be expected from a sustained screening program, data from randomized cancer screening trials are still relied on by many task forces. Increasingly, the focus is on non-experimental evidence, i.e. data from populations where organized screening programs have been introduced. In the evaluation of the impact of such programs, before-after comparisons of cancer mortality rates need to take account of concomitant improvements in cancer care over these same decades. Time-, age- and place-matched comparisons, and attention to which deaths could/could not be averted by the screening program, are essential for valid estimates of benefit. Using organized population-based programs of mammography screening for breast cancer as an example, we show that by ignoring these issues, many of the prevailing statistical approaches to the analysis of such population-based data underestimate the mortality reductions produced by these programs. Statistical approaches that can deal with these 'dilutions' will be described.

Key words: underestimation, target of screening, delayed impact, non-proportional hazards, conditional, matching

I give my permission for my paper to be changed to a poster presentation: No

Audio-visual: Audio-Visual Guidelines: Each technical session room will be equipped with a complimentary PC-compatible laptop, LCD projector, screen, and lectern with microphone. Additional equipment must be ordered and paid for by the presenter. All rooms will be connected to the JSM speaker management system with access to upload in advance and onsite. For the poster part of Speed sessions, each presenter will be provided with a 42" display screen and

a laptop.

Authors

Name

Hanley, James - McGill University (Presenting)

Weedon-Fekjaer, Harald - University of Oslo

Hannigan, Ailish - University of Limerick

Saarela, Olli - University of Toronto

To provide the best cohesive program possible, all session participants need to commit to their involvement by registering for JSM. The registration fee is nonrefundable.

[Move to the top of the page](#)

ASA Meetings Department

732 North Washington Street, Alexandria, VA 22314

(703) 684-1221 • meetings@amstat.org

Copyright © American Statistical Association.