

Register research in the molecular age: studies on cervical carcinoma in Sweden

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Medical research based on comprehensive population- and disease registers has a long tradition in the Nordic countries. The increasing importance of molecular epidemiology during the last decades, with its often heavy focus on case-control studies, may however give the impression that registers have become relegated to providing phenotypical completion for non-population based designs.

I will present a number of studies on prevention and treatment of cervical cancer in Sweden that hopefully counteract this impression by illustrating the following points: (1) simple cumulative growth of registers opens new possibilities for classical register studies, (2) improved understanding of causal mechanisms can guide extended register linkage, (3) population based biobanking studies are (still) possible. Additionally, I will highlight shared common elements in the survival- and relative survival analyses involved in these studies, such as multiple time scales and time-varying exposures and -effects.

I will conclude with a short overview of some of the possibilities and challenges for register based research due to current innovations in methodology, technology and legal framework.