ARE WOMEN WITH CHRONIC POOR MENTAL HEALTH LESS LIKELY TO ATTEND BREAST SCREENING AND DOES THIS EXPLAIN THE SOCIAL AND GEOGRAPHIC VARIATIONS IN UPTAKE? A POPULATION-WIDE RECORD LINKAGE STUDY

Background Research from the United States (US) provides compelling evidence of disparities in breast screening uptake for women with mental illness, yet few attempts have been made to examine this association in the United Kingdom (U. K) where healthcare is free at the point of use. It is well established that mental illness is not evenly distributed across the population. For example, mental illness is more prevalent in individuals who are unmarried, socially deprived, and residing in urban areas. Interestingly, these attributes are also strong predictors of lower attendance at breast screening, and it is possible that this may be explained by the increased prevalence of mental illness in these individuals. This study aims to examine the impact of self-reported poor mental health on attendance at breast screening in the United Kingdom (UK), and to what extent this explains socio-demographic inequalities in uptake.

Methods Breast screening records were linked to 2011 Census data within the Northern Ireland Longitudinal Study (NILS). This identified a cohort of 57,328 women who were followed through one complete three-year screening cycle of the National Health Service (NHS) breast screening programme. Poor mental health was identified using responses to question 23 of the Northern Ireland 2011 Census which asked, ‘Do you have any of the following conditions, which have lasted, or are expected to last, at least 12 months?’ to which ‘An emotional, psychological or mental health condition (such as depression or schizophrenia)’ was a possible response. Information on individual and household-level attributes was also derived from Census records. Logistic regression was employed to calculate odds ratios (ORs) and 95% confidence intervals of attendance at breast screening.

Results 10.7% of women in the cohort reported poor mental health, and in fully-adjusted analyses, these individuals were 23% less likely to attend breast screening (OR 0.77: 0.73–0.82). Although poor mental health was a strong predictor of screening uptake, it only explained a minimal degree of the observed inequalities in uptake by socio-economic status and marital status, and did not explain any of the variation by area of residence. Furthermore, there was no evidence of effect modification between poor mental health and any other socio-demographic determinant of screening uptake.

Conclusion This study provides novel evidence of inequalities in breast screening uptake for women with self-reported poor mental health in the UK. Targeted interventions are required to improve screening uptake in individuals with mental illness to optimise the mortality benefits achieved through population-wide screening.
Discussion Both display ban policies were followed by a decline in the trend for smoking prevalence and quitting attempts in adult smokers. A key strength in this study was its consistent and theory-based approach which allowed us to assign impacts to a certain policy with more confidence. This novel approach to policy analysis could also be applied in other public health disciplines.

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EVALUATING THE MOVE TO, AND IMPLEMENTATION IN THE IMPACT OF SMOKE-FREE LEGISLATION IN IRELAND

Methods

OP89 THE IMPACT OF SMOKE-FREE LEGISLATION IN IRELAND ON LUNG CANCER INCIDENCE AND MORTALITY

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Background In 2004, Ireland became the first country to institute a comprehensive workplace smoking ban. Previous research has found that comprehensive smoking bans are associated with public health benefits. However, given the relative recency of smoking bans and the long latency of the effect of cigarette smoke on lung cancer, the effect of smoking bans on lung cancer has not been well explored.

Methods An appropriate lag time for the smoking ban was calculated (2010 for lung cancer incidence, 2006 for lung cancer mortality). Using these breakpoints, a one-sample, Poisson-based, interrupted time series analysis was used to compare lung cancer incidence and mortality before and after the modelled interruptions. An identical analysis was applied to brain cancer, a cancer with no known link to smoking or second-hand smoke exposure, as a validity check.

Results Each year following the modelled interruptions, lung cancer incidence and mortality in Ireland decreased 2% (95% CI 1–3, p<0.01) and 1% (95% CI 0–2, p=0.02) relative to the modelled counterfactual. In absolute terms, the smoking ban was associated with 32 (95% CI 14–52) fewer lung cancer incident cases per year and 113 (95% CI 96–131) fewer lung cancer deaths per year, equivalent to 1.36% of the post-interruption lung cancer incident cases and 6.03% of the post-interruption lung cancer deaths.

Discussion The 2004 Irish Workplace Smoking Ban avoided approximately 195 incident lung cancer cases and 1,125 lung cancer deaths to by 2015. This is among the first quasi-experimental studies to examine the effect of a comprehensive smoke-free policy on lung cancer.

Using Logic Models to Inform Tobacco Control Policy Outcome Evaluation

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Background A key challenge in the evaluation of population-level public health policies is understanding how each policy is likely to work and in whom. This is particularly challenging in settings where several policies are implemented in a short period. Logic models are a visual representation of the anticipated causal pathway of an intervention and are useful in...