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## Using Record Linkage to Examine the Impact of Poor Mental Health on Breast Screening Uptake

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### Background

The UK National Breast Screening Programme is estimated to reduce breast cancer mortality by 20%. To maximise the benefits of the programme, we first need to understand the underlying factors contributing to variations in screening uptake. One potentially significant factor which may contribute to these gradients in screening uptake is poor mental health.

### Objectives

The objectives of this study were to examine the impact of poor mental health on breast screening uptake, and whether this explained any of the previously observed socio-demographic gradients in screening uptake.

### Methods

Breast screening records were obtained from the National Breast Screening System (NBSS) and were subsequently linked to 2011 Census data within the Northern Ireland Longitudinal Study (NILS). The NILS encompasses 28% of Census data. This was then linked to psychotropic prescribing information from the Enhanced Prescribing Database (EPD), to produce a de-identified research dataset containing 57,328 women.

### Findings

Women with self-reported poor mental health were over 20% less likely to attend screening compared to their counterparts who didn't have poor mental health. Using psychotropic prescribing information as a proxy for the presence of mental illness yielded similar results, with those taking anxiolytics, antipsychotics or hypnotics in the three months before screening invitation significantly less likely to attend than those who were not.

### Conclusion

Women with poor mental health were significantly less likely to attend breast screening. However, poor mental health did not explain any of the previously determined socio-demographic gradients in screening uptake.

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