# The effects of long-term health conditions on sickness absence in the UK

Mark Bryan, Andrew Bryce, Jennifer Roberts
University of Sheffield

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@brycemeister @M_L_Bryan @sheffeconomics

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# Motivation

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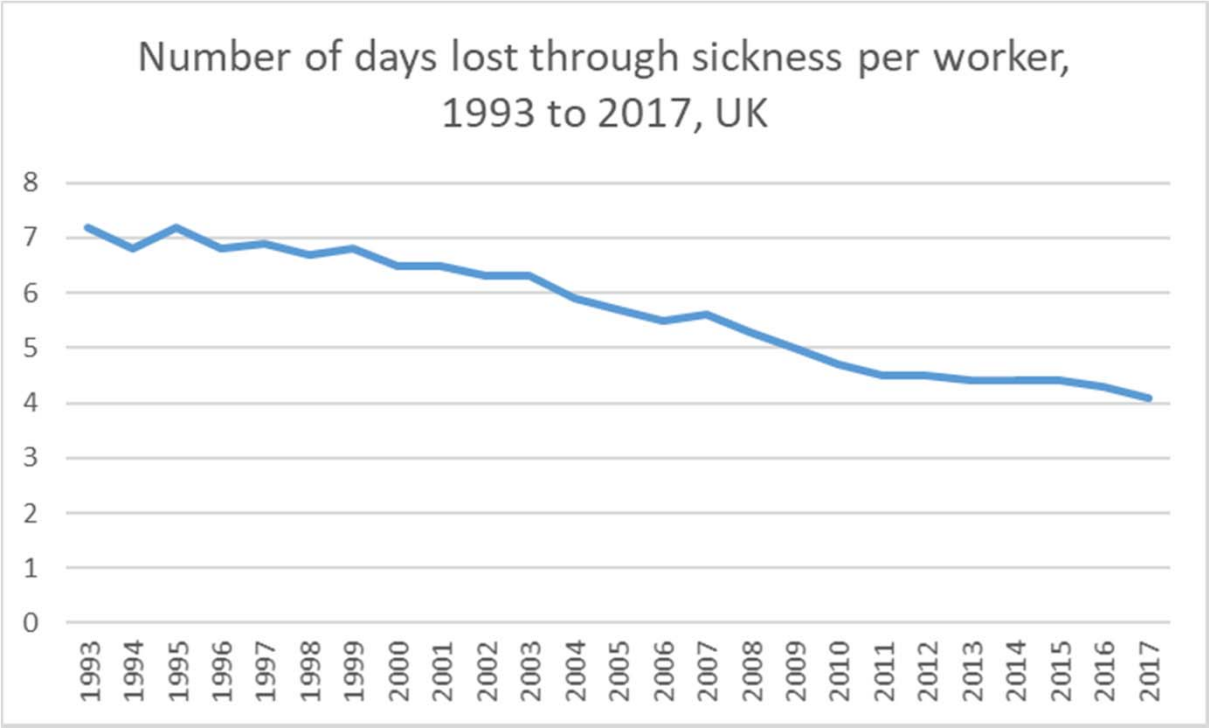
# Sickness absence in the UK




Sickness absence rate in 2017:

- 3.9% for workers with long-term health conditions
- 1.2% for those without

Source: ONS (2018)

# The cost of absenteeism

- Sickness absence estimated to cost business £522 for every employee every year (CIPD 2016)
- Taxpayers also foot the bill through statutory sick pay
- Cost to workers themselves due to loss of earnings, inhibited career progression and missing out on the wider benefits of work such as health and well-being

# Our research questions

- To what extent is the relationship between health and absenteeism causal?
- Which kinds of health conditions are most predictive of absenteeism? In particular, is there a difference between physical and mental health?
- Does the risk of absenteeism due to the onset of physical or mental health conditions depend on the type of work that you do?
- We are the first to look at these questions for the UK. Similar studies for other countries include Bubonya et al. (2017) for Australia and Garcia-Serrano and Malo (2014) for Europe

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# Data

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# Why the LFS?

- Good data on chronic health conditions
- Good data on sickness absence in the reference week
- Panel structure due to individuals having repeated interviews over five quarters
- Big sample – 939,432 observations between 2009 and 2018, all of whom were in paid work and aged between 21 and 55
- Accessed via Secure Data Service to attain extra variables such as workplace size and local authority of residence

 

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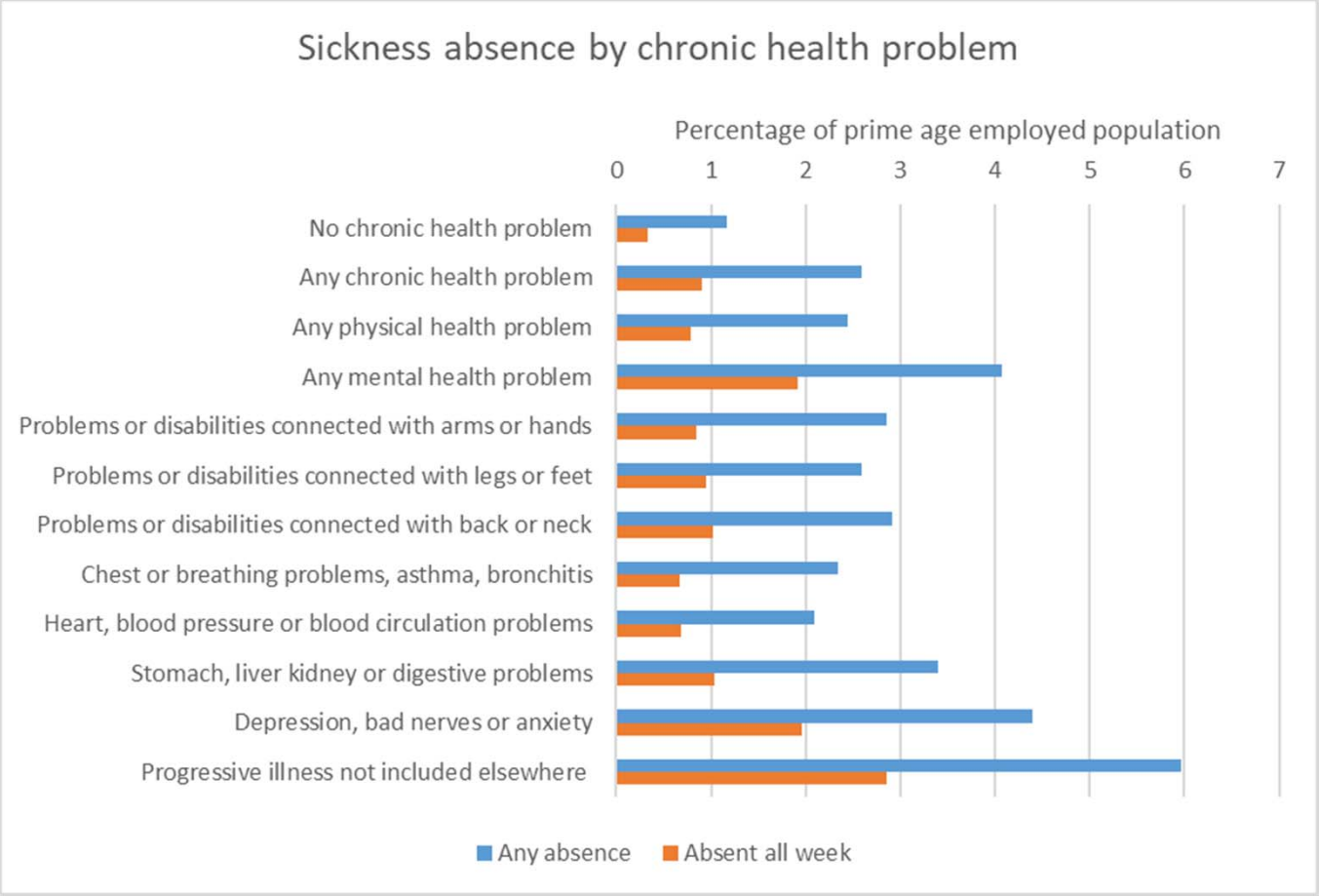
# Descriptive statistics




Source: LFS (Jan 2009 – Jun 2018, weighted data, wave 1 responses only)

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# Method

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# Model

1. Probit model

$$\Pr(S_{it} = 1|\mathbf{H}_{it}, \mathbf{X}_{it}) = \Phi(\mathbf{H}_{it}\boldsymbol{\beta} + \mathbf{X}_{it}\boldsymbol{\gamma} + v_i + \varepsilon_{it})$$

2. Correlated random effects probit model

$$\Pr(S_{it} = 1|\mathbf{H}_{it}, \mathbf{X}_{it}) = \Phi(\psi + \mathbf{H}_{it}\boldsymbol{\beta} + \mathbf{X}_{it}\boldsymbol{\gamma} + \overline{\mathbf{H}_i}\boldsymbol{\eta} + \overline{\mathbf{X}_i}\boldsymbol{\xi} + a_i + \varepsilon_{it})$$

where $v_i = \psi + \overline{\mathbf{H}_i}\boldsymbol{\eta} + \overline{\mathbf{X}_i}\boldsymbol{\xi} + a_i$

 

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# Results

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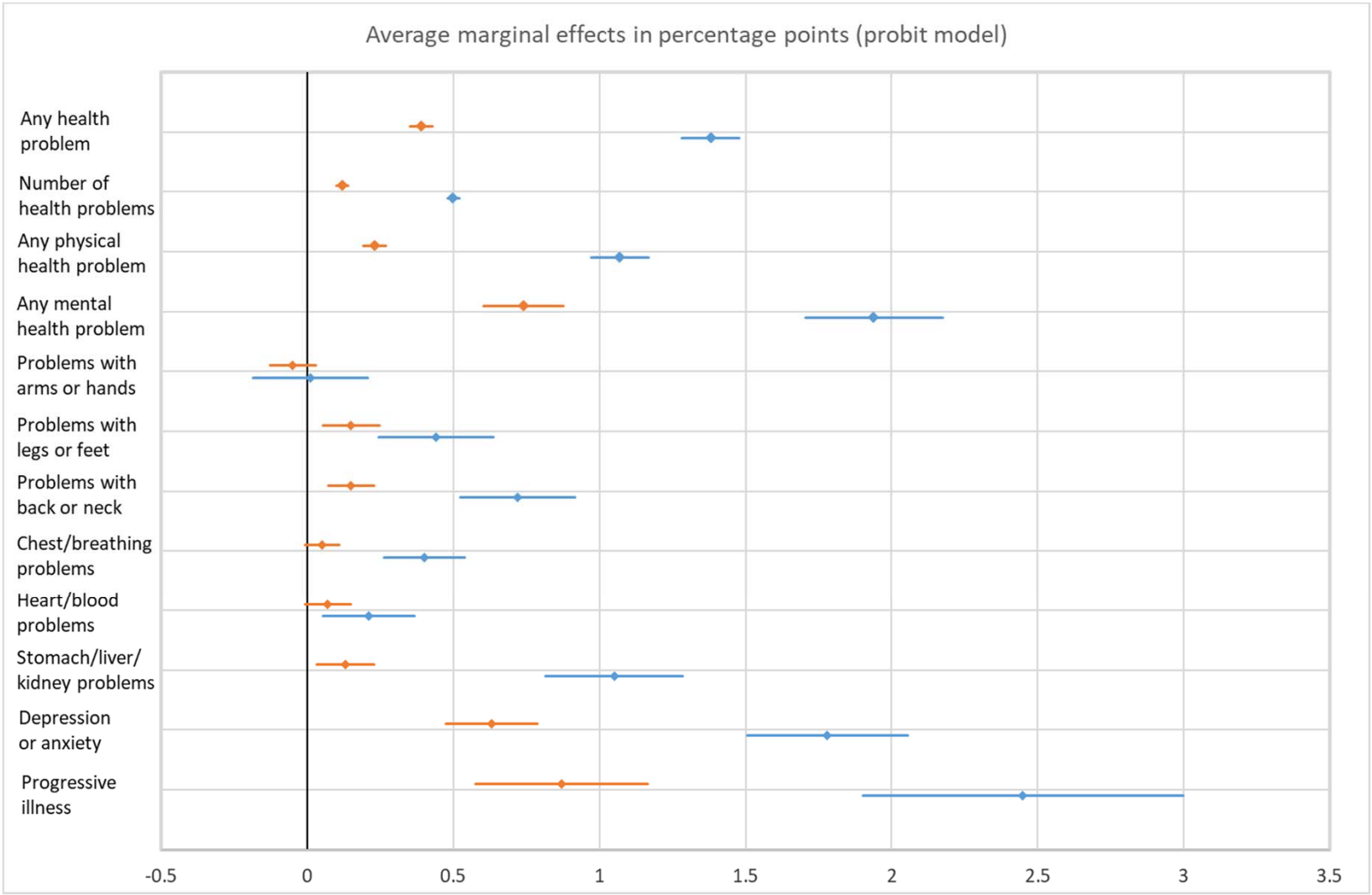
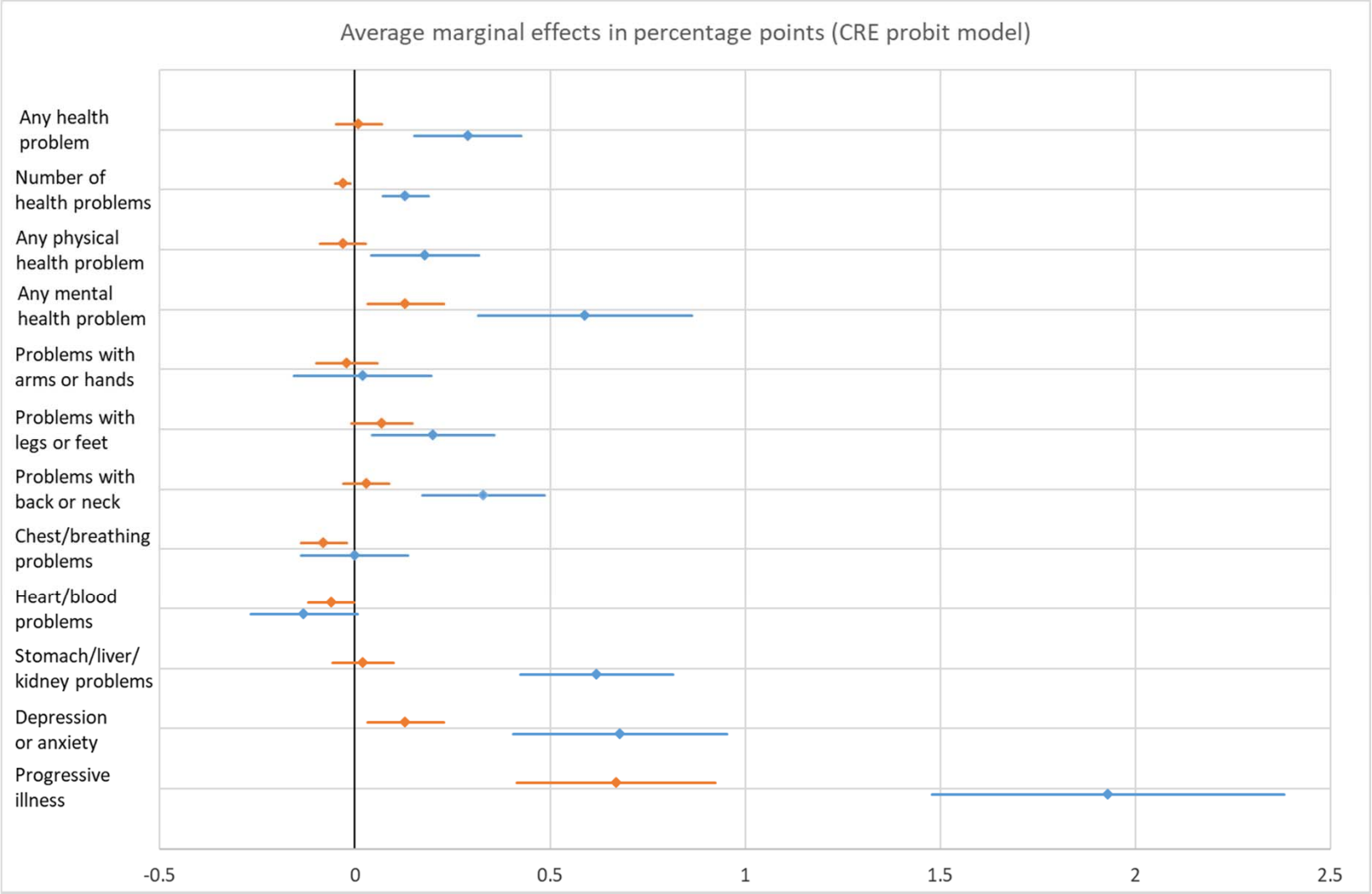
# Results - probit

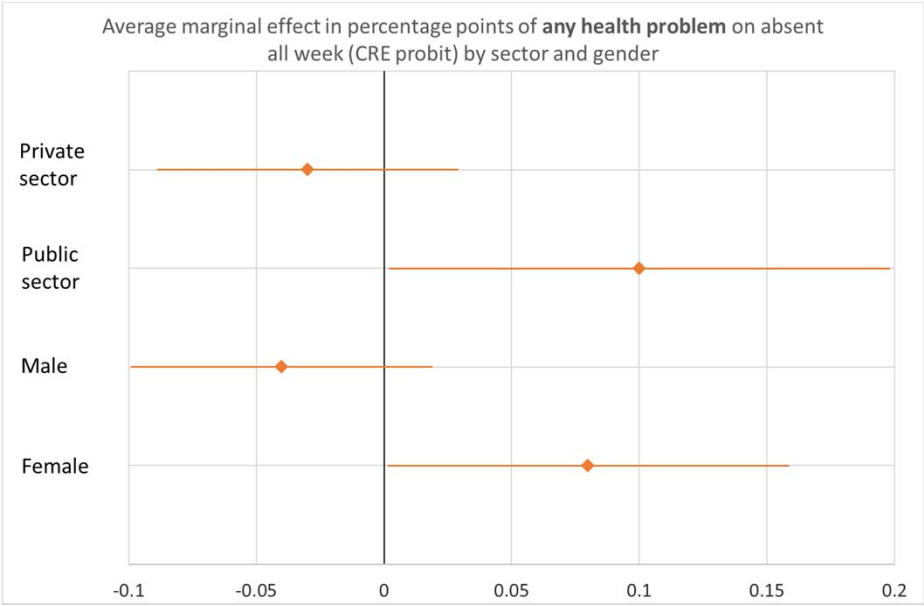


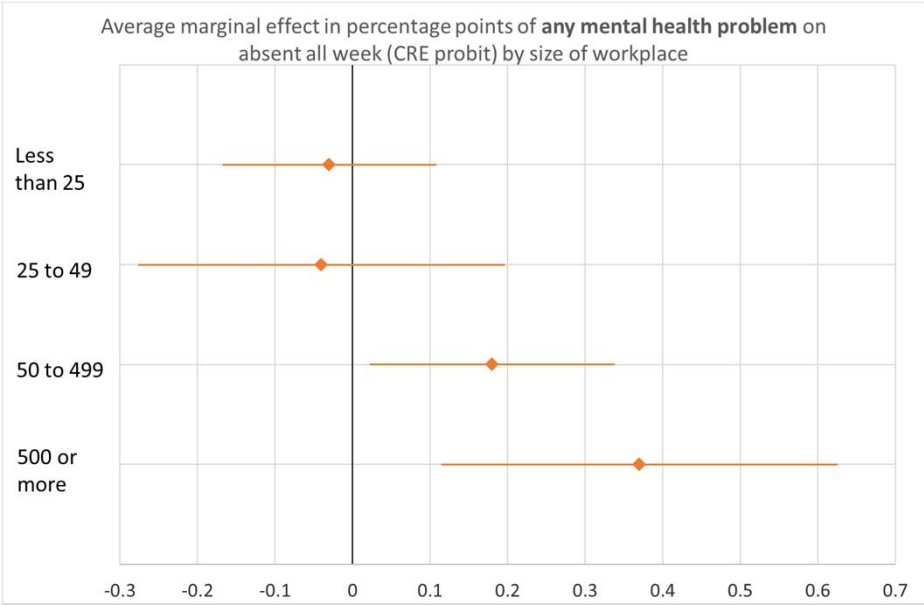
# Results – CRE probit



# Results – interactions






Absent all week

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# Conclusions

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# Conclusion

- In the UK population, chronic health conditions are significantly associated with both short and longer term sickness absence.
- The onset of a physical health condition affects only short term absence whereas the onset of a mental health condition affects both short and longer term absence.
- Aside from progressive illness, the condition most associated with sickness absence is common mental health disorders (e.g. depression, anxiety, bad nerves).
- Investment in health (particularly mental health) will bring about benefits for business and the economy due to reduced sickness absence.
- Risk of a health shock leading to sickness absence is higher in some workplaces than others. It's not clear whether this is good or bad.

 