ESTIMATING TRENDS IN PREVALENCE OF PEOPLE WITH OPIOID DEPENDENCE IN SCOTLAND, 2015-2020: RESULTS FROM A MULTI-PARAMETER ESTIMATION OF PREVALENCE (MPEP) MODEL

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Background:
Scotland is facing a public health emergency, with the number of opioid drug-related deaths (DRDs) having doubled between 2011 and 2021. DRD rates are the highest in Europe, making it critical to robustly estimate the number of people with opioid dependence to inform policymakers and interventions. We aimed to estimate the prevalence of opioid dependence in Scotland among those aged 15 to 64 for each year, 2014/15 - 2019/20.

Methods:
We used a Bayesian Multi-Parameter Estimation of Prevalence (MPEP) model to estimate the prevalence of opioid dependence jointly from opioid-related mortality and hospitalisations data. These were linked to all Opioid Agonist Treatment (OAT) prescription records in Scotland, within the Scottish Public Health Drug Linkage Programme. The model assumes opioid-related mortality and hospitalisation rates among individuals with recent but not current OAT (last five years) are equal to those among the 'unobserved' (no recent OAT) people with opioid dependence, whin each age/sex/year/region group.

Results:
In 2019/20, the estimated number and prevalence of people with opioid dependence in Scotland were 47,100 (95% credible interval, CrI, 45,700 to 48,600) and 1.32% (95% CrI 1.28% to 1.37%), respectively. OAT coverage during 2019/20 was 61%, with 74% having received OAT in the last five years. There was some evidence of a small reduction in prevalence since 2014/15 (estimated reduction -0.07%, 95% CrI -0.14% to 0.00%). The population is aging, with the estimated number of individuals aged 15-34 decreasing from 17,200 (1.24%) in 2014/15 to 12,100 (0.87%) in 2019/20, while those aged 50-64 increased from 4,600 (0.43%) to 7,400 (0.65%).

Conclusions:
Although the prevalence of opioid dependence in Scotland remains high, there is no evidence of an increase from 2014/15 to 2019/20. The rise in DRDs cannot be attributed to a growth in population size, rather an increased risk among individuals with opioid dependence.

Disclosure of Interest Statement:
NJW declares honoraria from the Association of the British Pharmaceutical Industry for delivery of masterclasses on statistical methodology for submissions to NICE. No other competing interests were declared.