

Coventry and Warwickshire VTS, CRN West Midlands and Warwick Medical School  
**‘Primary Care Research and Audit in Coventry and Warwickshire’**  
 11<sup>th</sup> July 2019

<b>PRESENTER’S DETAILS</b>		
<b>Title</b> (Prof, Dr, Mr, Mrs, Miss) Miss	<b>First Name</b> Stephanie	<b>Surname</b> Soyombo
<b>Place of work/study</b> Warwick Medical School		
<b>PRESENTATION DETAILS</b> (total max 250 words - not including title) The aim of this project was: To identify whether there is an association between practice-level benzodiazepine & Z-drug prescribing and practice-level socioeconomic deprivation.		
<b>Co-Authors</b> Harpal Aujla, Rhian Stanbrook, David Capewell, Mary Shantikumar, Daniel Todkill, Saran Shantikumar (project supervisor)	<b>Title of Study</b> Socioeconomic deprivation and benzodiazepine / Z-drug prescribing: a cross-sectional study of practice-level data in England	
<b>What’s the problem you are tackling? (Background)</b> Benzodiazepines and Z-drugs (such as zopiclone) are widely prescribed in primary care in England. Prescribed for various indications, such as anxiolysis and insomnia, it has been previously reported that an association may exist between benzodiazepine prescribing and deprivation.		

**How did/will you do it? (Method)**

Monthly primary care prescribing data for 2017, as well as practice age and sex profiles, were downloaded from NHS Digital. Prescribing was aggregated by year. Drug doses were converted to their milligram-equivalent of diazepam to allow comparison. Practice-level Index of Multiple Deprivation (IMD 2015) scores were obtained from Public Health England. Multiple linear regression was used to examine the association between IMD and prescribing (for all benzodiazepines / Z-drugs in total, and individually), after adjusting for practice sex (% male) and older age (% >65s) distribution. Practice-level prescribing was defined as milligrams of diazepam-equivalent per 1000 registered patients in 2017.

**What did you find? (Results)**

On univariate analysis, overall benzodiazepine prescribing was positively associated with practice-level IMD score, with more prescribing in more deprived practices ( $p < 0.001$ ). After adjusting for practice age and sex profile, IMD score remained an independent predictor of prescribing levels ( $p < 0.001$ ). These associations were consistent for all benzodiazepines / Z-drugs when analysed separately. Bivariate choropleth maps were used to display prescribing and deprivation simultaneously.

**Why does this matter? (Conclusion)**

Higher practice-level socioeconomic deprivation, as described by IMD score, was associated with increased benzodiazepine / Z-drug prescribing. This may, in part, be a reflection of an underlying association between the indications for prescribing and socioeconomic deprivation. Further work is required to more accurately define the underlying reasons for variations in prescribing.