

Exposure to second-hand smoke in Scotland's prisons

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Results from the baseline study

- All 15 prisons measured between 30th September and 22nd November 2016
 - Measurement duration mean was 5.9 days (7301-8704 mins)
 - Total 128,431 minutes of data on PM_{2.5} concentrations (>2100 hours)
 - Outdoor PM_{2.5} data from nearest local authority outdoor fixed site measurement station
 - Mobile/task-based measurements (~30 minutes)
 - 86 in total (range 2-8) >40 hours of task-based data
- All results available at <https://academic.oup.com/annweh/article/61/7/809/3965339> and from SPS website at http://www.sps.gov.uk/Corporate/News/Creating_a_Smoke_Free_Prison_Environment.aspx

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Characterising the Exposure of Prison Staff to Second-Hand Tobacco Smoke 

Sean Semple , Helen Sweeting, Evangelia Demou, Greig Logan, Rachel O'Donnell, Kate Hunt, on behalf of the Tobacco in Prisons (TIPs) Research Team

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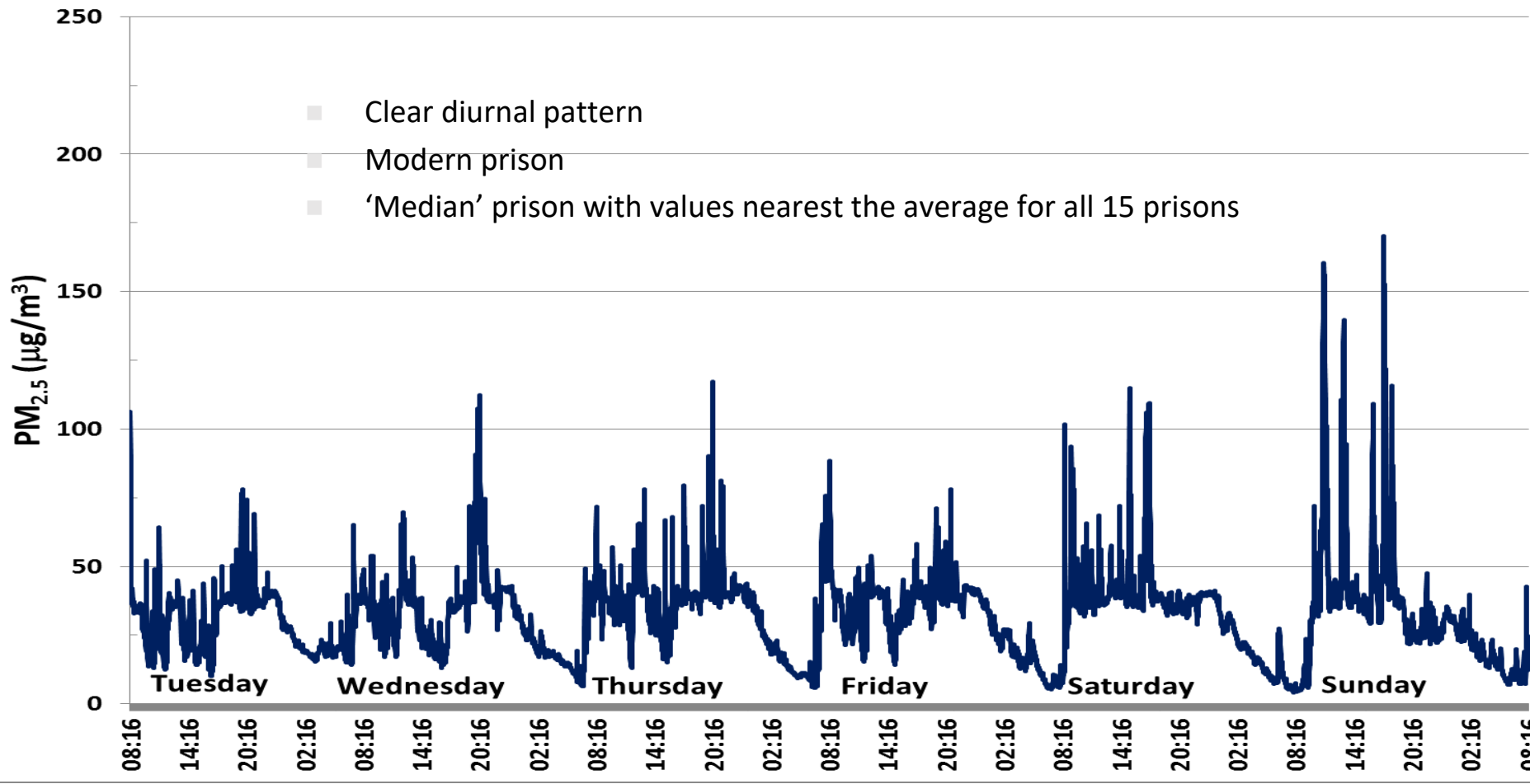
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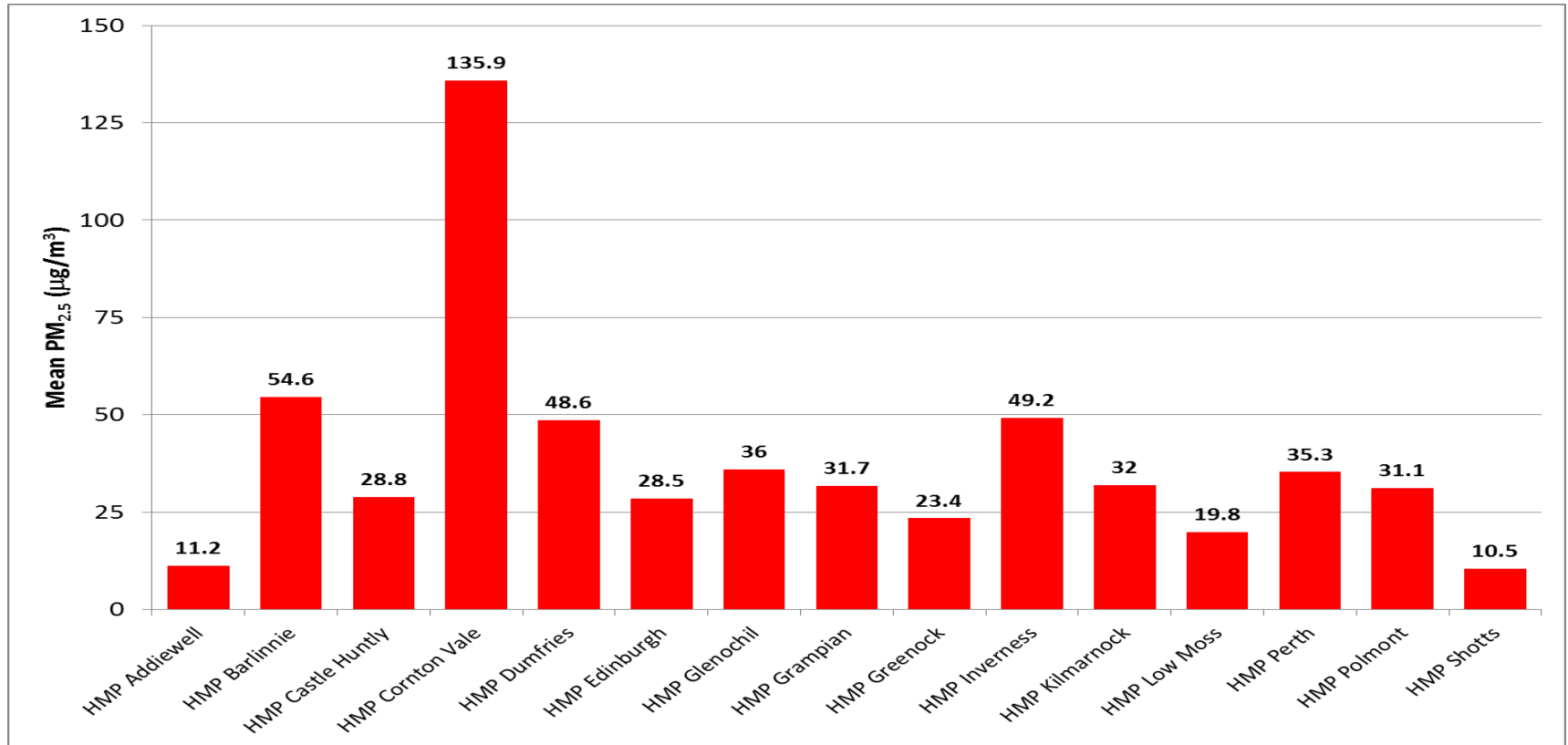
Abstract

Second-hand tobacco smoke (SHS) is an avoidable and harmful exposure in the workplace but >25000 prison staff continue to be exposed on a daily basis in the

PM_{2.5} time plots – HMP Grampian



Static PM_{2.5} measurements



Summary of results

- Largest data set of SHS exposure from any prison service in the world
- There is clear evidence of exposure to SHS in all prisons
- SHS exposure concentrations broadly similar to data from prisons in England & Wales (2015)
- High levels of variation between and within prisons
- Overall, exposure to SHS for most prison staff is likely to be in the range of 20-30 $\mu\text{g}/\text{m}^3$
- Similar to a non-smoker living with a smoker
- Exposure much lower than that experienced by bar staff prior to smoke-free legislation
- Some common tasks such as cell checks and cell maintenance lead to high SHS exposures that are similar to those experienced in a bar in Scotland prior to smoke-free laws
- There is no Workplace Exposure Limit for SHS – the World Health Organisation state “there is no safe level of exposure to SHS”

