



Is neighbourhood outlet density related to alcohol consumption and health inequalities in Scotland?



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Outline

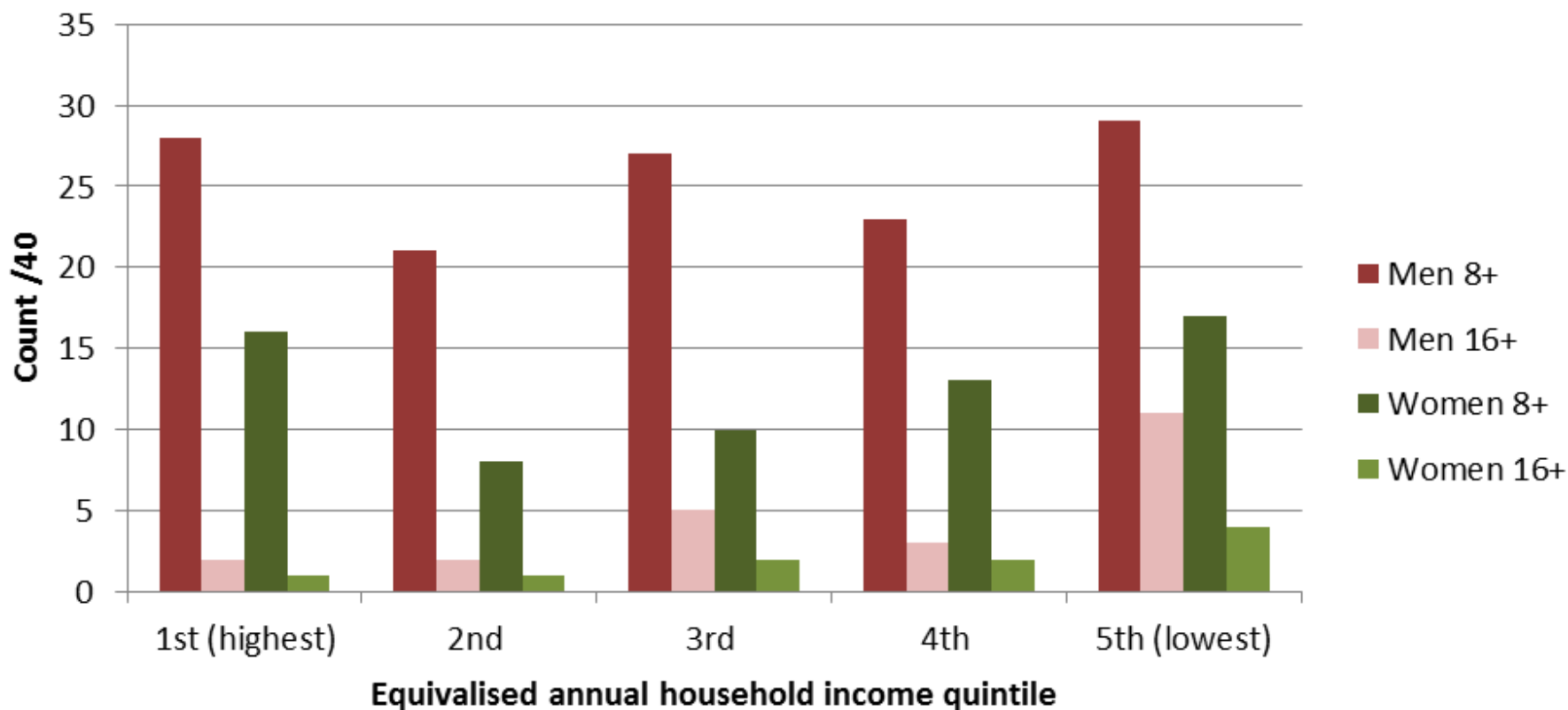
- Alcohol as a public health challenge
- Place & alcohol
- Creating alcohol outlet density maps for Scotland
- Alcohol outlet density & inequalities
- Association between alcohol outlet density behaviours and health outcomes
- Policy implications

Alcohol as a public health challenge

- Scottish Government:
 - Enough alcohol sold for every adult in Scotland to exceed weekly recommended limits
 - 2010: 23% more alcohol sold per adult in Scotland than in England & Wales (widest gap to date).
 - Hospital discharges quadrupled since early 1980s
 - Estimated cost: £3.6 billion pa
 - Crime & anti-social behaviour
- 2012 Scottish Health Survey:
 - 19% adults: indications of “alcohol use disorder”
 - lowest income group >3 times more likely to report “high-risk drinking”



AUDIT* scores (age standardised), 2012, by income (data source: SHS)



*Alcohol Use Disorders Identification Test (screen for high alcohol use, and dependency)
8+ Alcohol use disorder
16+ harmful drinking behaviour

Place & alcohol

- Individual **behavioural** perspectives
 - BUT **partial account** for social & cultural factors integral to understanding drinking.
 - policy response – '**lifestyle drift**' rather than considered in wider context
- Drinking enabled & constrained by social-geographical factors
 - reality of drinking in everyday life
 - how public health messages received, negotiated & mediated
- Individual factors **and** environments **interact to produce spaces** that are **more or less favourable** to drinking
 - neighbourhoods, schools, workplaces, etc.



Geographical factors & alcohol

Governance &
industry role

Outlet density
& drinking

Alcohol use in
various types of
drinking venues

**Alcohol,
drinking and
drunkenness**

Unintended
implications of
legislation (e.g.
taxation,

Role of drinking
in understanding
identity, lifestyle
& sociability

Wider social policy
initiatives (e.g. urban
regeneration, social
inequalities

Alcohol Retailing Environment

Local pricing structure



Ease of access

Local norms: alcohol consumption,
knowledge & attitudes

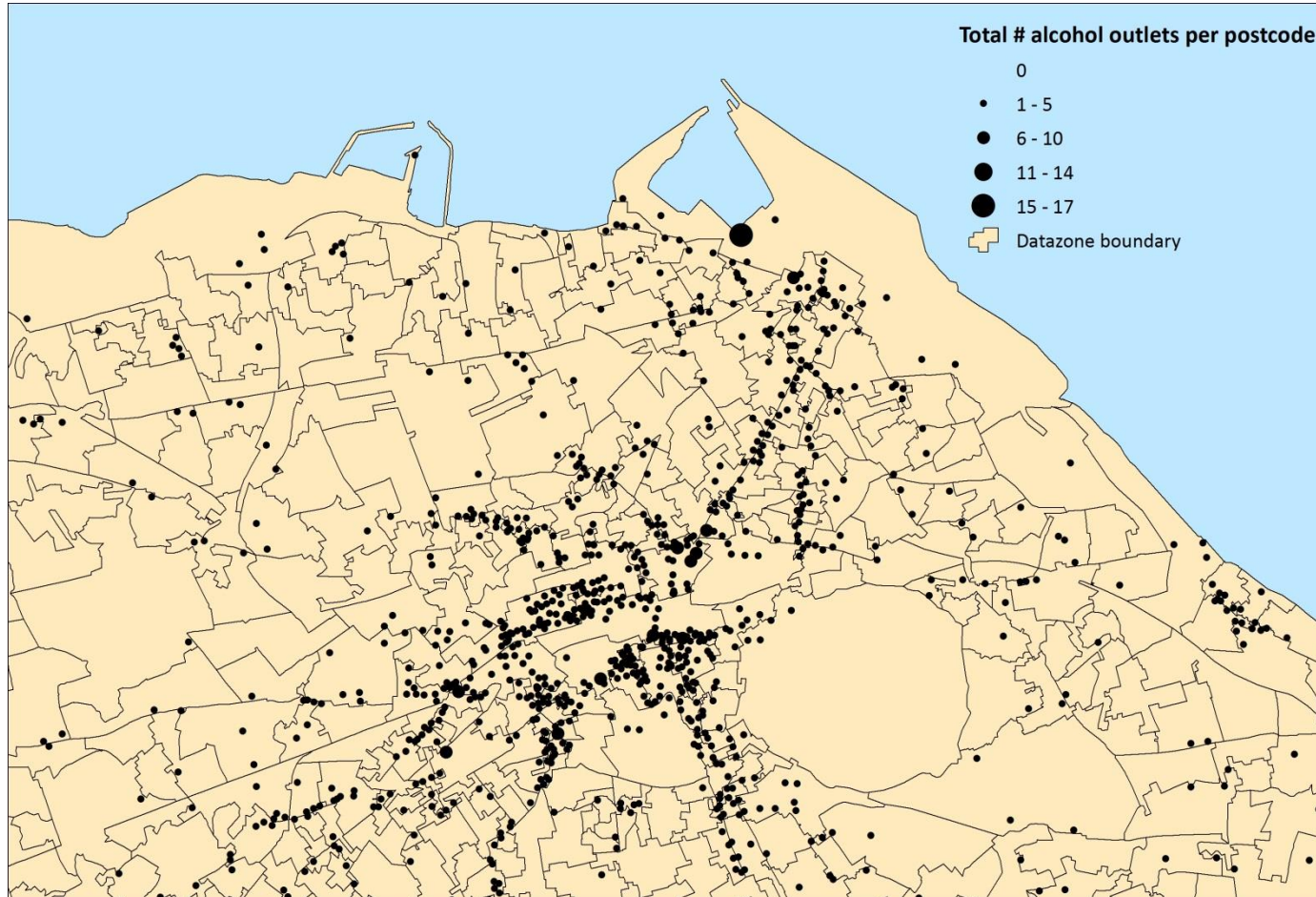
Research Aims

- Scottish study examining:
 - social & spatial distribution of alcohol retailing
 - associations between the geographies of alcohol retailing and:
 - (i) alcohol consumption
 - (ii) related health outcomes

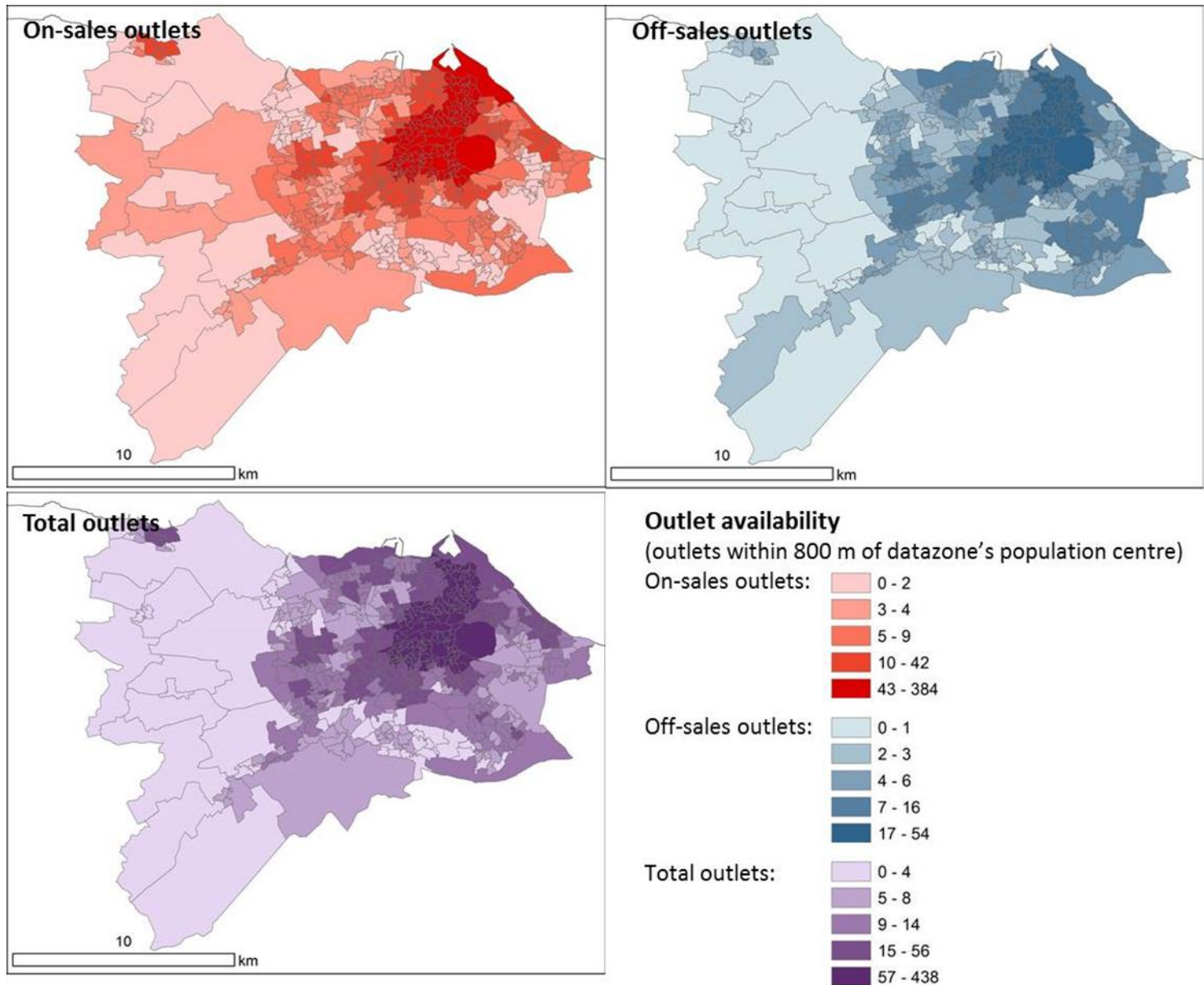
Alcohol outlet data

- Premises selling alcohol licensed under the Licensing (Scotland) Act 2005
- Postcodes of all licensed premises (16,159) from Liquor Licensing Boards (4,800 off-sales and 11,359 on-sales)
- Created a density measure at the data zone level for the whole of Scotland for total outlets, off-sales outlets and on-sales outlets

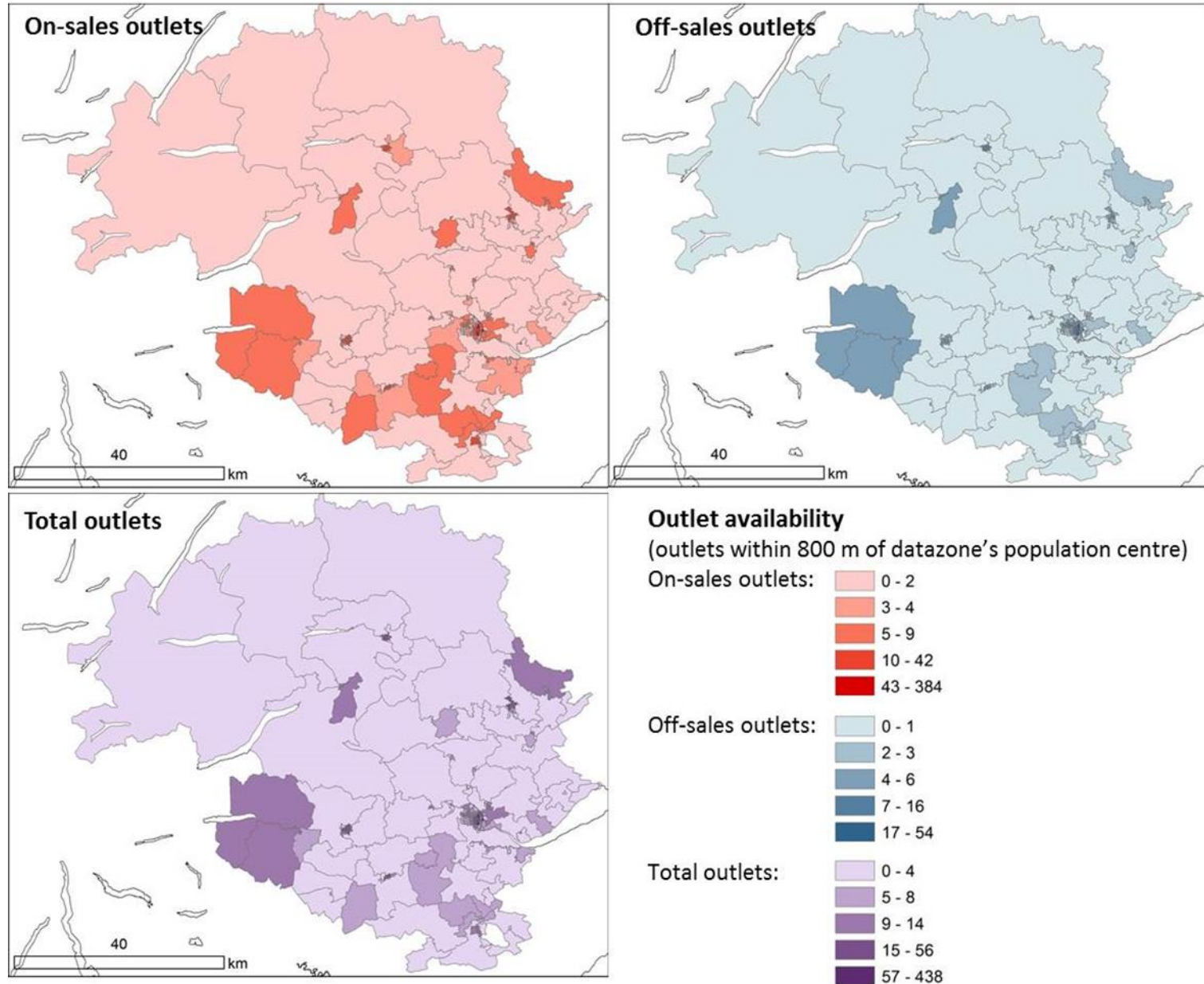
Alcohol outlet distribution



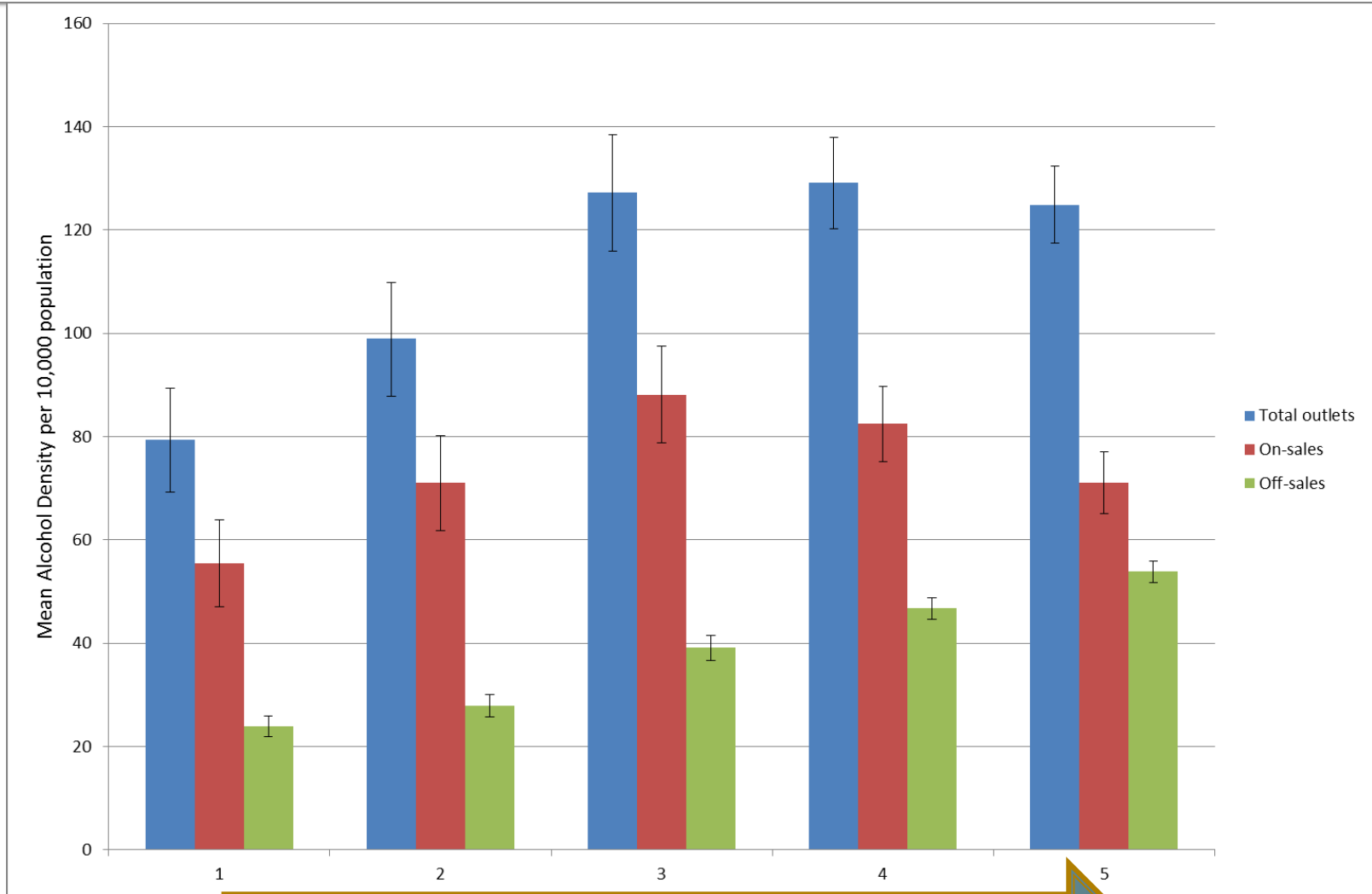
Alcohol outlet density in Edinburgh



Alcohol outlet density in Perth and Kinross

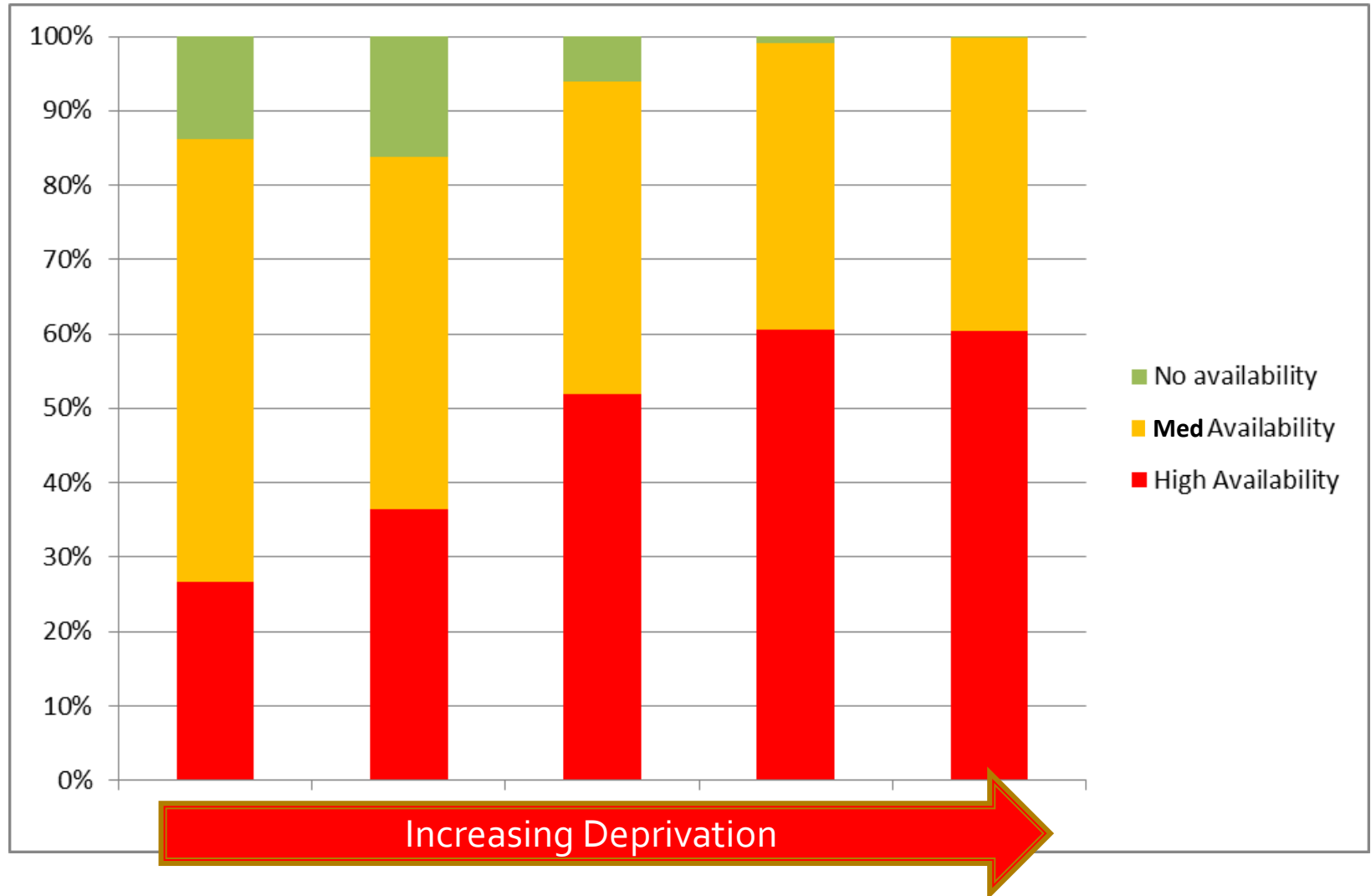


Outlet density and area level deprivation



Increasing Deprivation

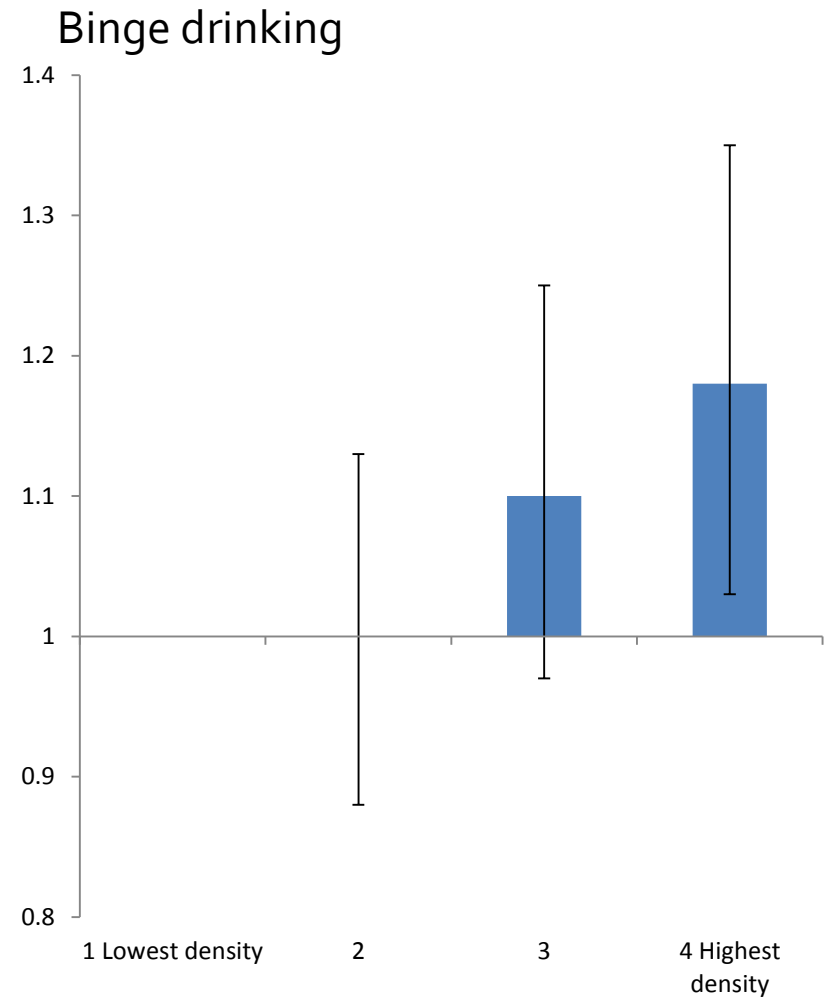
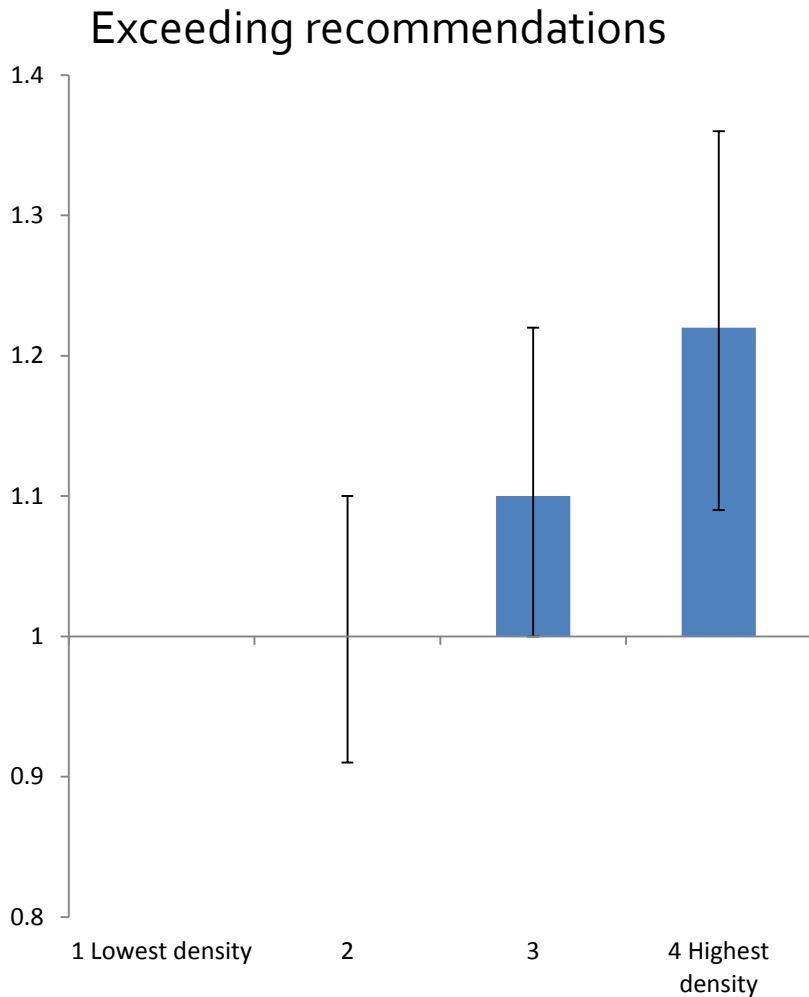
Percentage of population by alcohol outlet availability (density)



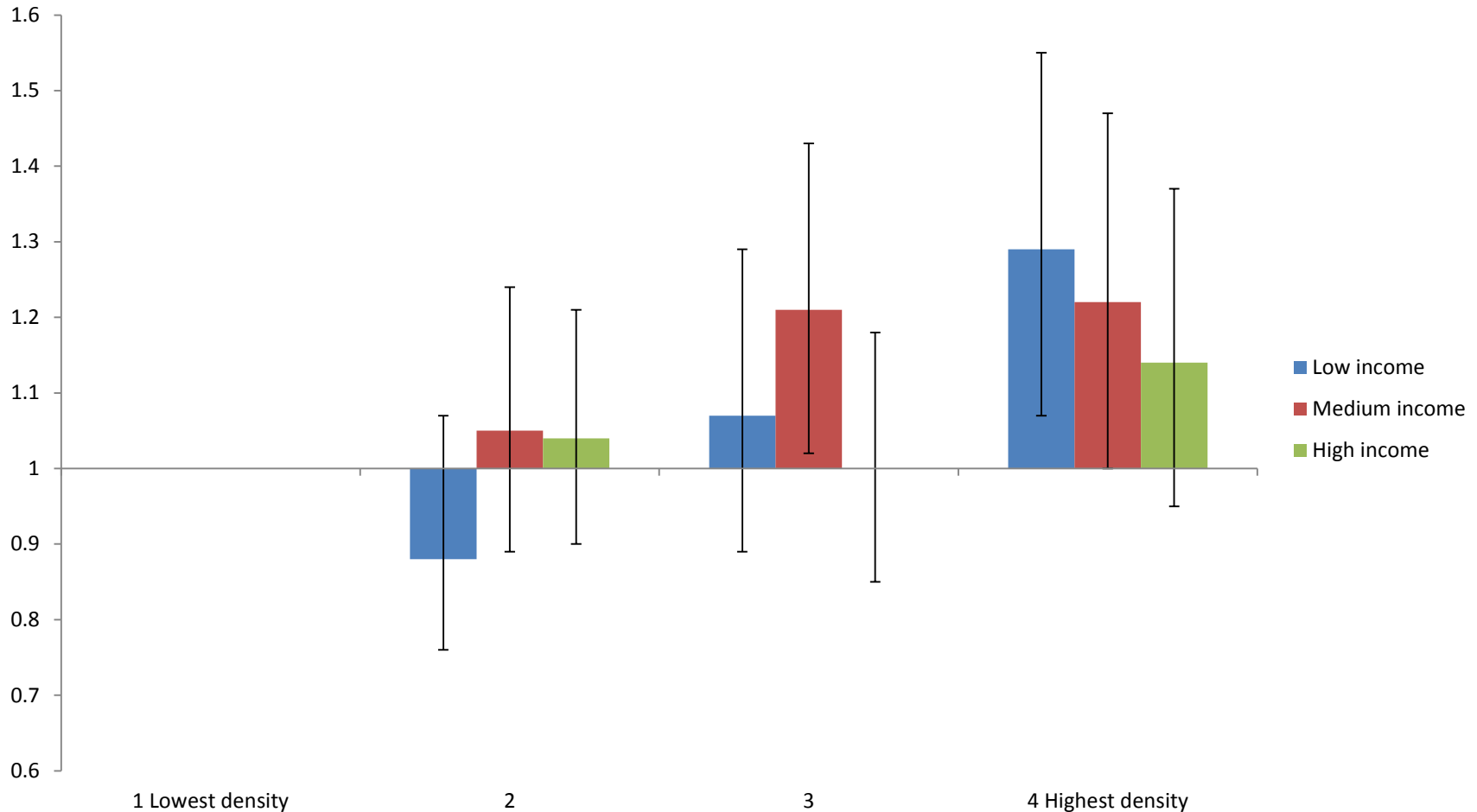
Linking density to health data

- Scottish Health Survey (2008 – 2011)
- Alcohol-related deaths between 2002 and 2011 from General Register Office for Scotland (GROS)
- Alcohol-related hospitalisation indicator from the Health domain of the Scottish Index of Multiple Deprivation 2012 (SIMD)

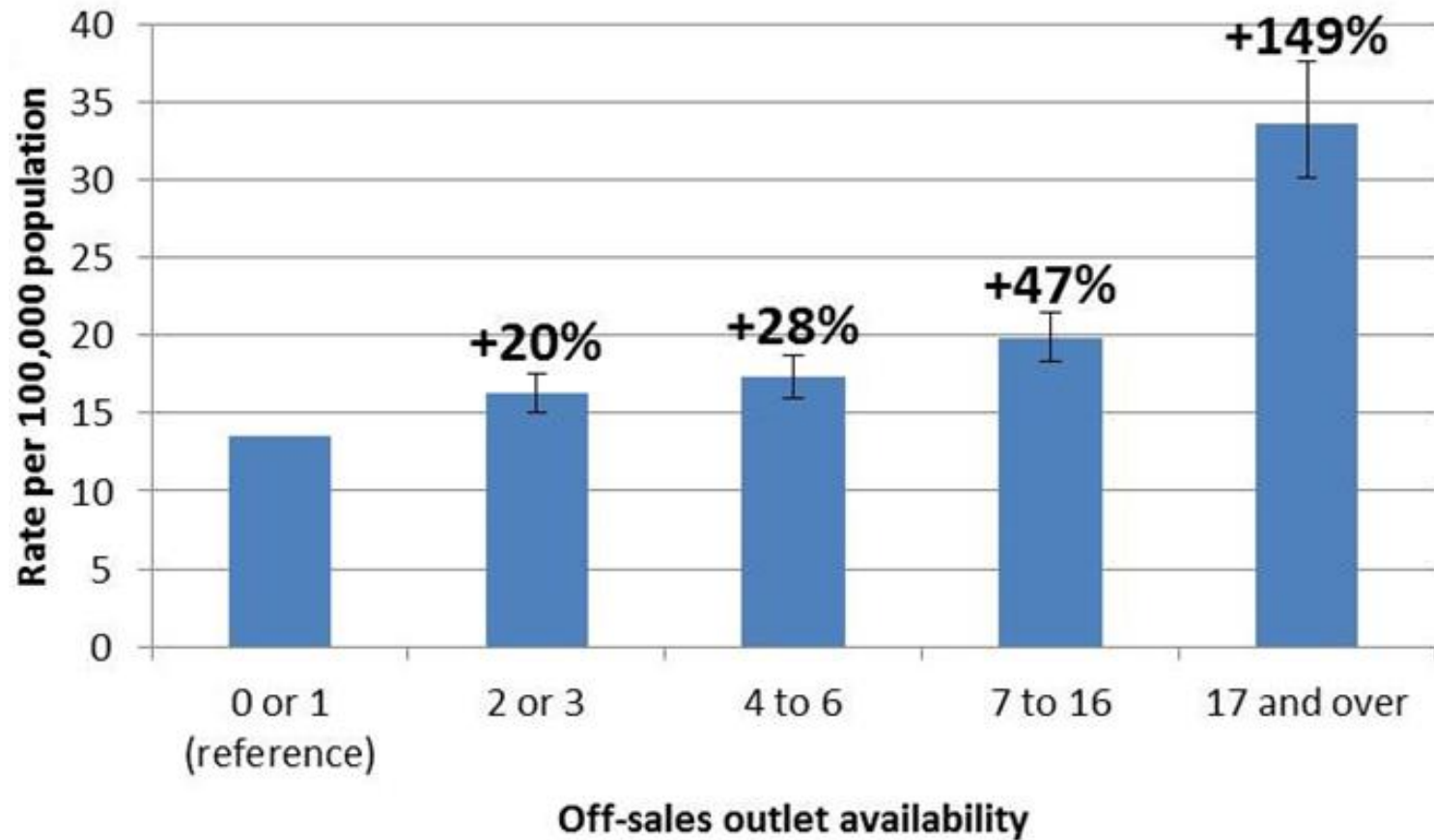
Health behaviours and total outlet density



Exceeding recommendations and total outlets – by income group

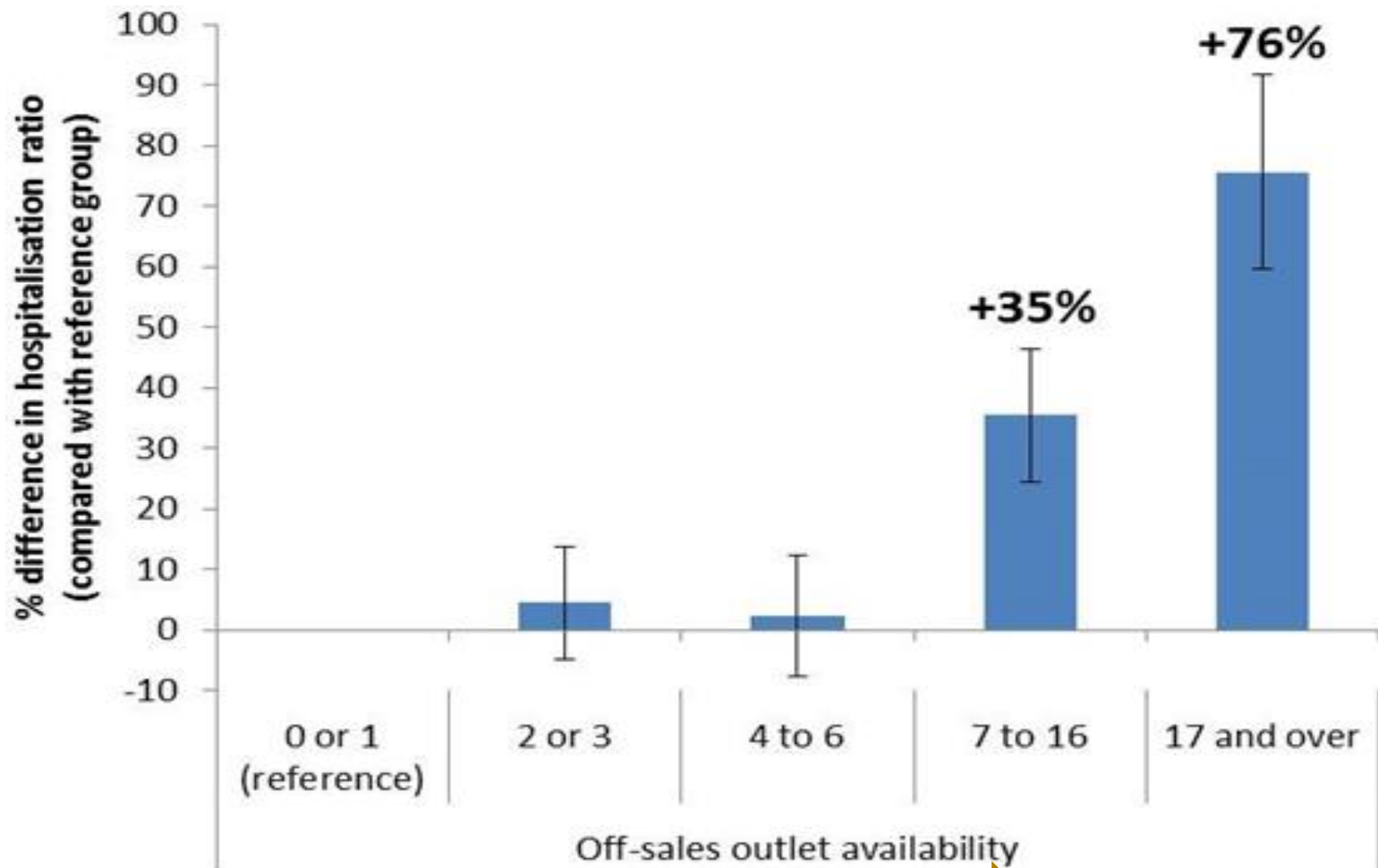


Alcohol-related death rates for off-sales outlet availability groups



Increasing Density

Alcohol-related hospitalisations for off-sales availability groups



Increasing Density

Discussion

- Key findings:
 - Across Scotland there is a **social gradient** in the distribution of alcohol outlets
 - Effect of outlet density on behaviours is **strongest in the lowest income group**
 - Neighbourhoods with **higher numbers of alcohol outlets** had significantly **higher alcohol-related death rates**.
 - Alcohol-related **hospitalisation** rates were significantly **higher** in neighbourhoods with the **most alcohol outlets**.
 - In most **local authorities** in Scotland **alcohol-related death rates and hospitalisation rates** were significantly **higher** in neighbourhoods with the **most alcohol outlets**.



Discussion

- **Alcohol environments** are important in understanding drinking in Scotland
 - different epidemiological worlds
- **Policy approaches** relying on engineering individual behavioural change unlikely to succeed without recognising environmental stressors and enablers
- **Next generation of alcohol policy strategies** should recognise that environments enable and constrain drinking

Acknowledgements

- Funders
 - Scottish Collaboration for Public Health Research and Policy
 - European Research Council
 - The Wellcome Trust
 - Alcohol Focus Scotland

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