Alcohol Minimum Unit Pricing (MUP) – a Scottish evaluation research project

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For Les Rencontres de Santé publique France, Paris, 5th June 2019

What I will cover in the talk

- ## Context to the NIHR funded study

  - Epidemiology and legislation,

  - The MUP policy adopted in Scotland,

  - The wider evaluation framework – overview only.

- ## Detail on each component of the NIHR study

  - Aims,

  - Design and methods,

  - Response rates,

  - Baseline data,

  - Challenges,

  - Conclusions so far.

This presentation is done in total independence from the event organizer. I have no link of interest to declare with the topic presented

Epidemiological background - the problem
Scottish liver cirrhosis death rate, 1950-2006[1]
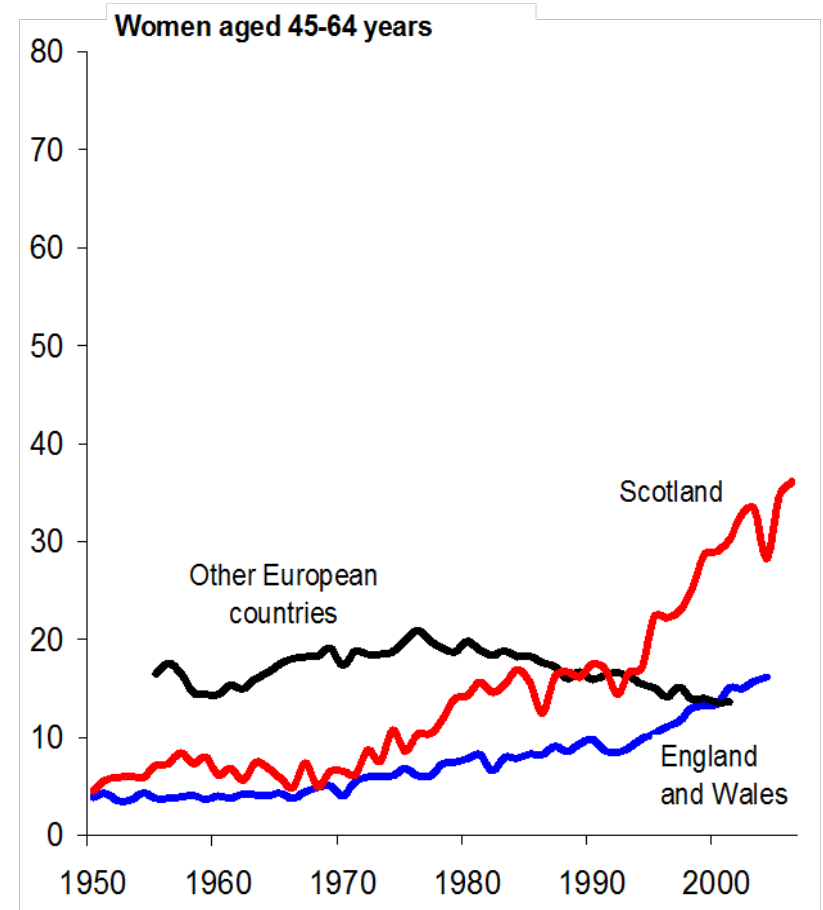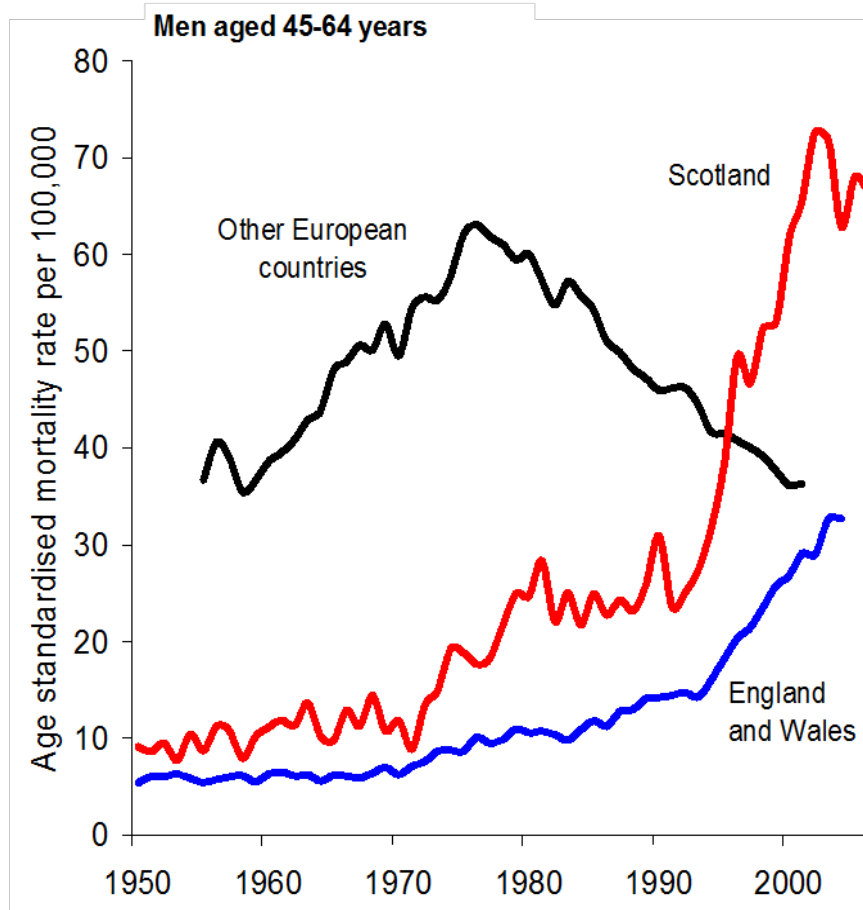
[1] Leon and McCambridge, Lancet, 2006.

Legislative background

- Legislation passed 2012

- Challenges and appeals 2012-2017

- MUP was implemented on 1st May 2018

- Time limit and review clause
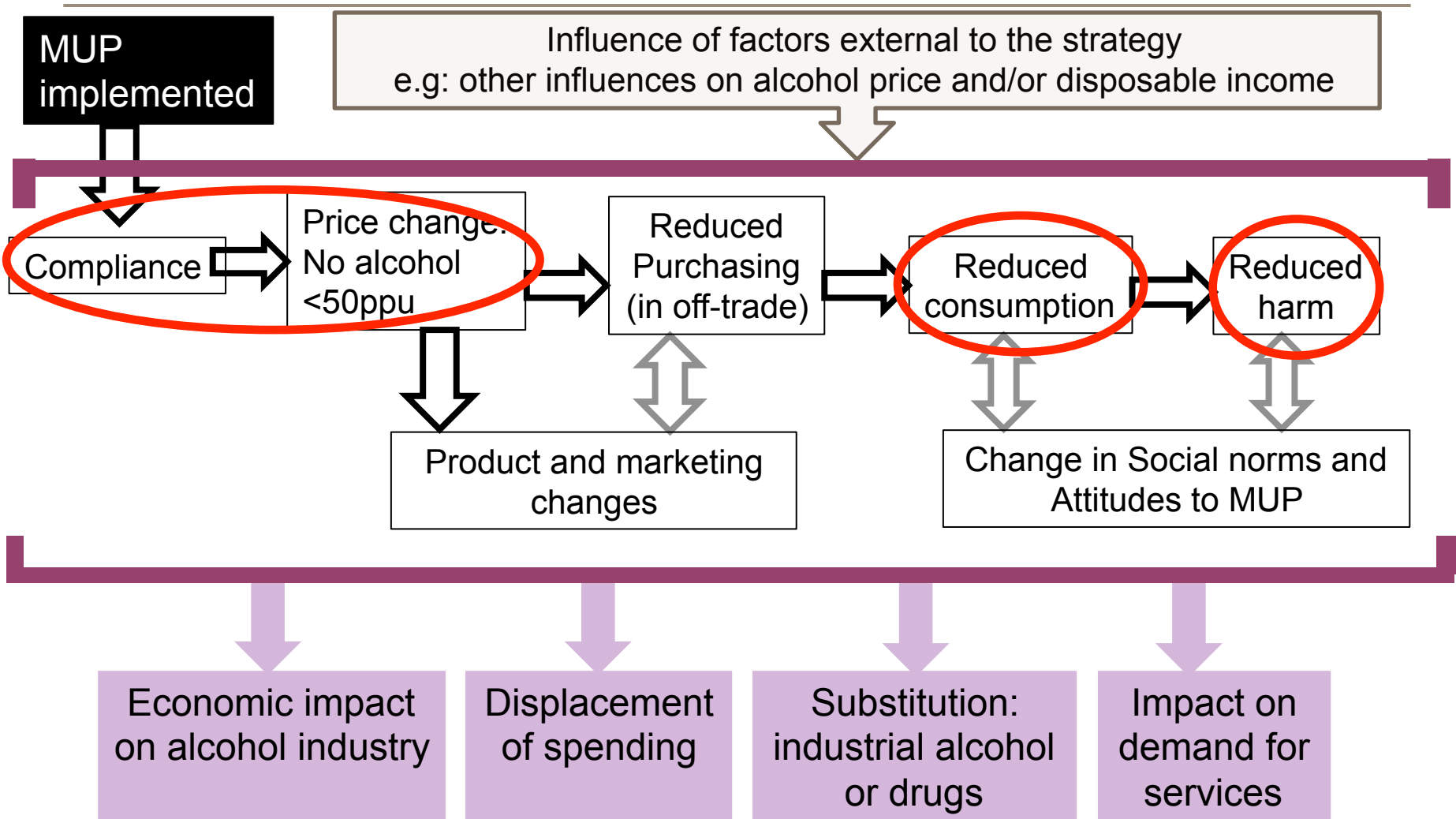
The Minimum Unit Price policy in Scotland

- The price
  - 50 pence per unit

- Groups most likely to be affected
  - Harmful drinkers in poverty

- Potential effects (from modelling)[1]
  - c.2000 fewer alcohol-related deaths and 38,000 fewer hospital admissions in the first 20 years of the policy

1 Angus et al, Model-based appraisal of the comparative impact of Minimum Unit Pricing and taxation policies in Scotland, Sheffield University, 2016.

The wider MUP evaluation framework

- c.18 separate studies in the whole portfolio

- The evaluation programme is designed and led by Ms Clare Beeston of NHS Health Scotland

- The projects in the programme map on to a theory of change

Theory of change for MUP

MUP implemented

Influence of factors external to the strategy
e.g: other influences on alcohol price and/or disposable income

Compliance → Price change: No alcohol <50ppu → Reduced Purchasing (in off-trade) → Reduced consumption → Reduced harm

Product and marketing changes

Change in Social norms and Attitudes to MUP

Economic impact on alcohol industry

Displacement of spending

Substitution: industrial alcohol or drugs

Impact on demand for services

Slide by kind permission of Clare Beeston, NHS Health Scotland

Research Aims for the SPHSU NIHR funded MUP evaluation study

- ## Emergency Departments component:

'To determine the impact on alcohol-related harms and drinking patterns for the overall population and by subgroups of interest.'

- ## Sexual Health Clinics component:

'To determine the impact on non-alcohol substance use for the overall population.'

- ## Communities - Qualitative component:

'To describe changes in experiences and norms regarding MUP and alcohol use.'
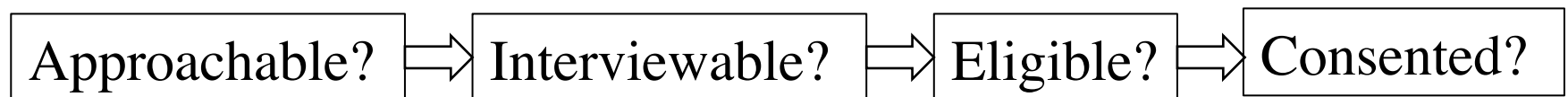
Design and Methodology – Emergency Departments

Four Emergency Departments, natural experiment, three waves (snapshots)

iPad interviews for consenting eligible attendees

Reasons for not approaching were recorded

Additional data were taken from hospital notes

Participant flow:

Approachable? ⟹ Interviewable? ⟹ Eligible? ⟹ Consented?

Outcome measures for Emergency Departments

Primary Outcome:

- Alcohol-related attendances

Secondary Outcomes:

- alcohol misuse (FAST score $\geq$3 (range 0-20)
- mean FAST score
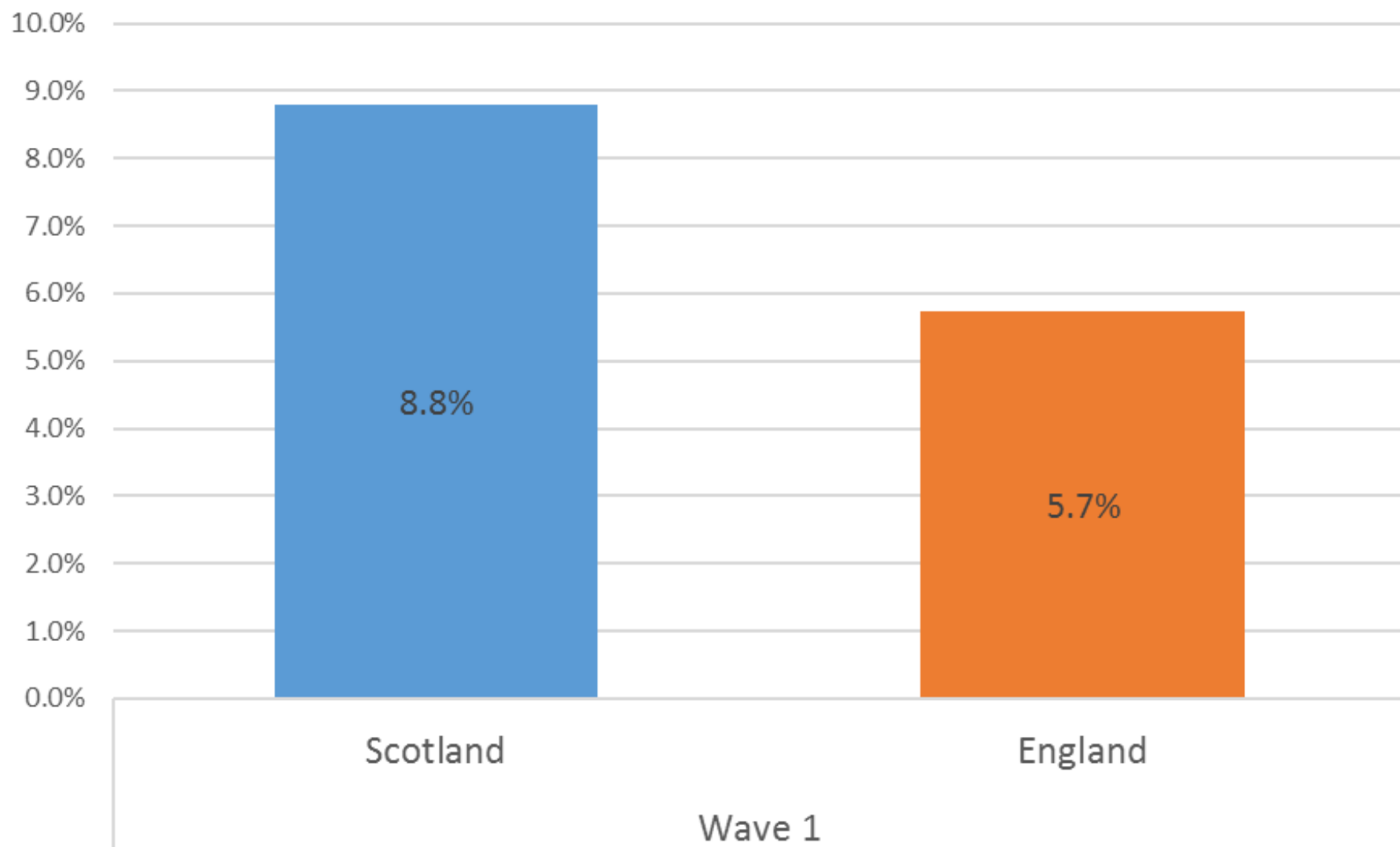- binge drinking in the past week

Emergency Departments: Realistic Response Rates across Three Waves
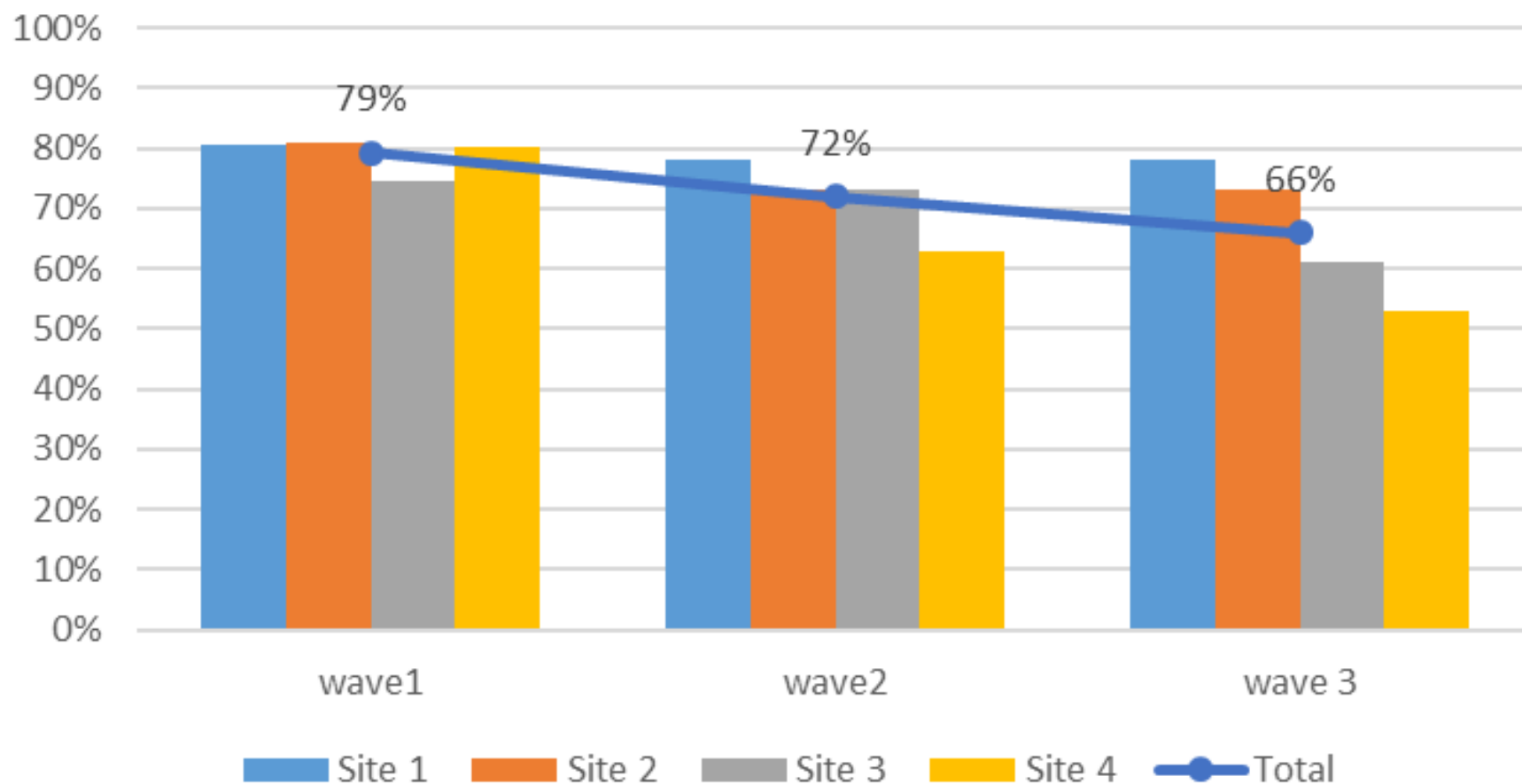
This and the following bar charts were created by Dr Vivian So
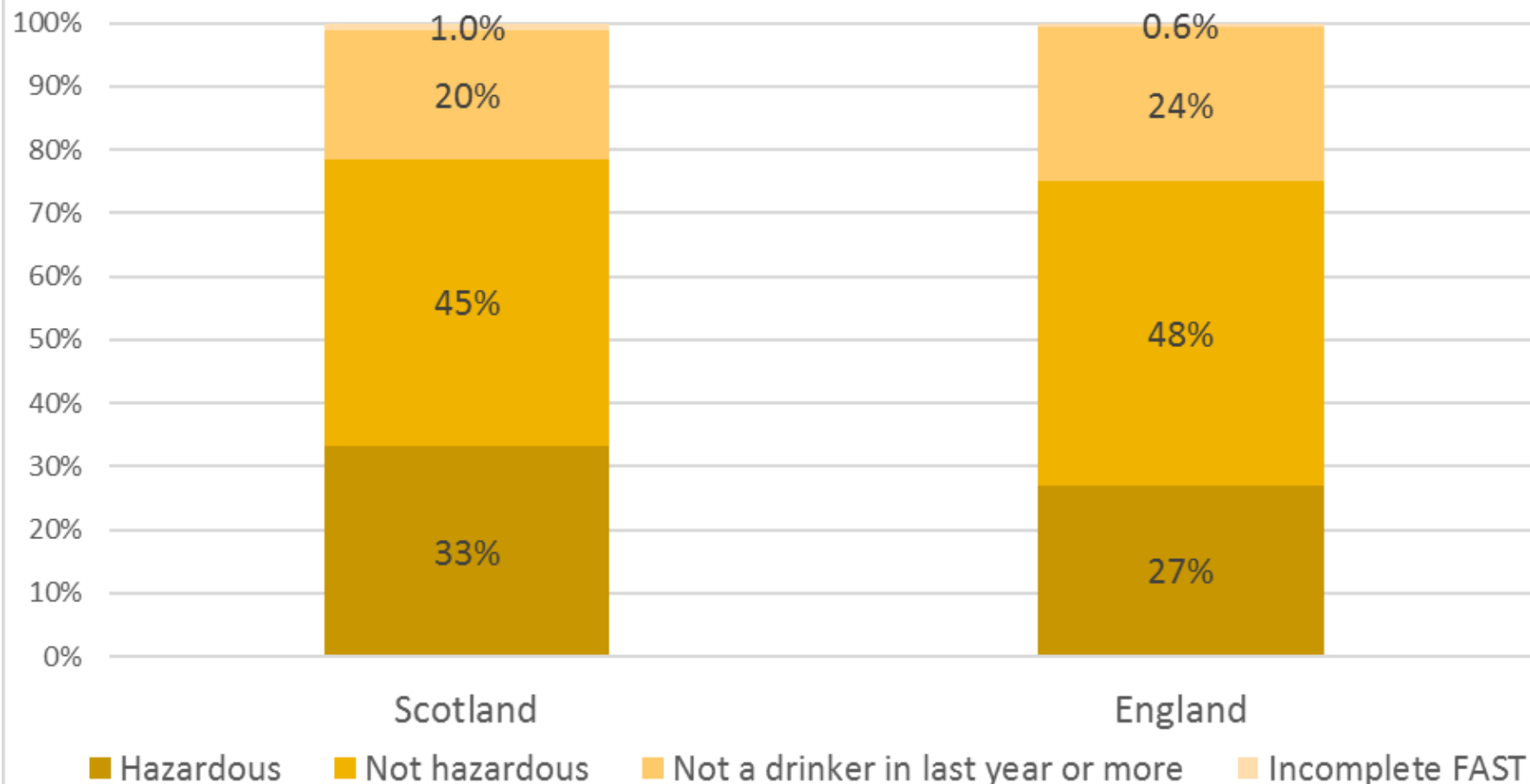
Baseline data
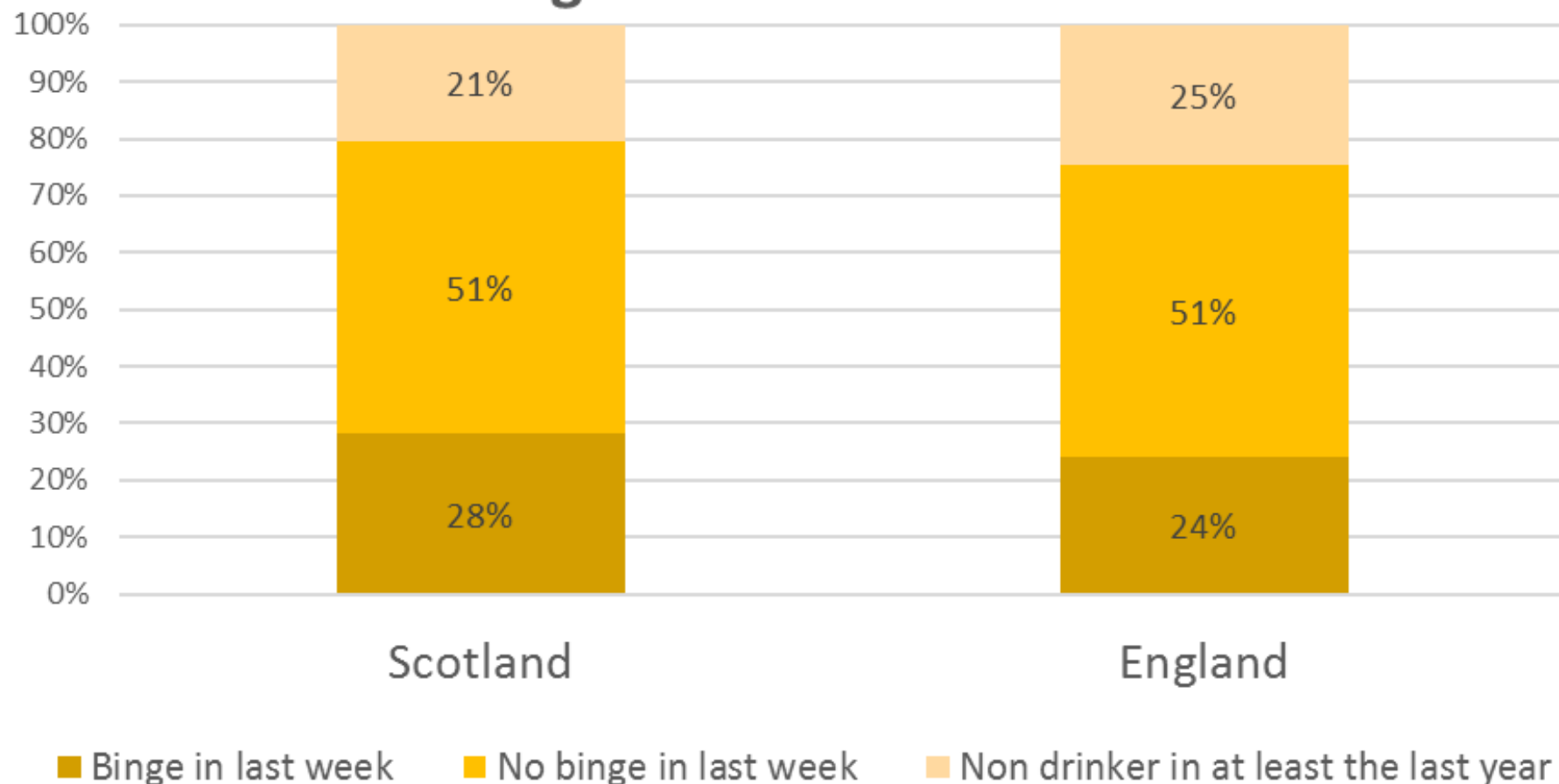
Emergency Departments: Alcohol-related attendance

Mean and Median FAST scores – Emergency Departments

Country	Mean	N	Std. Deviation	Median
England	2.4	928	2.9	1
Scotland	2.8	1240	3.0	2
Total	2.6	2168	3.0	2

Emergency Depts: Interviewees' Hazardous Drinking (FAST≥3)

Scotland:
- 1.0%
- 20%
- 45%
- 33%

England:
- 0.6%
- 24%
- 48%
- 27%

Legend:
- Hazardous
- Not hazardous
- Not a drinker in last year or more
- Incomplete FAST

Emergency Depts: Interviewees who had binged in the last week*

* (male ≥8 or female ≥6 units on one occasion)

Design and Methodology – Sexual Health Clinics

Six sexual health clinics, natural experiment three waves (snapshots)

Self completion surveys

Additional data from clinic systems

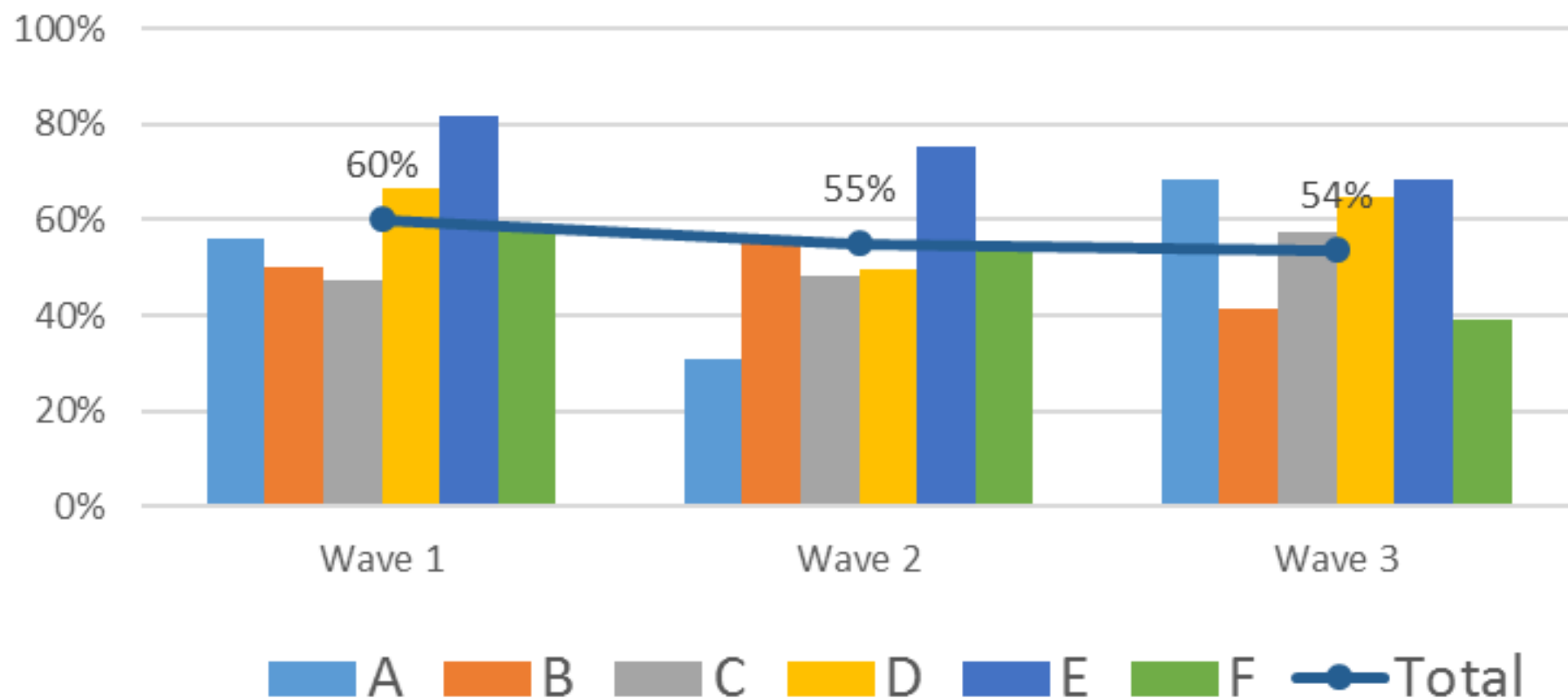# Outcome measures for Sexual Health Clinics (SHCs)

Primary Outcome

- Psychoactive substance use other than alcohol in the last month.

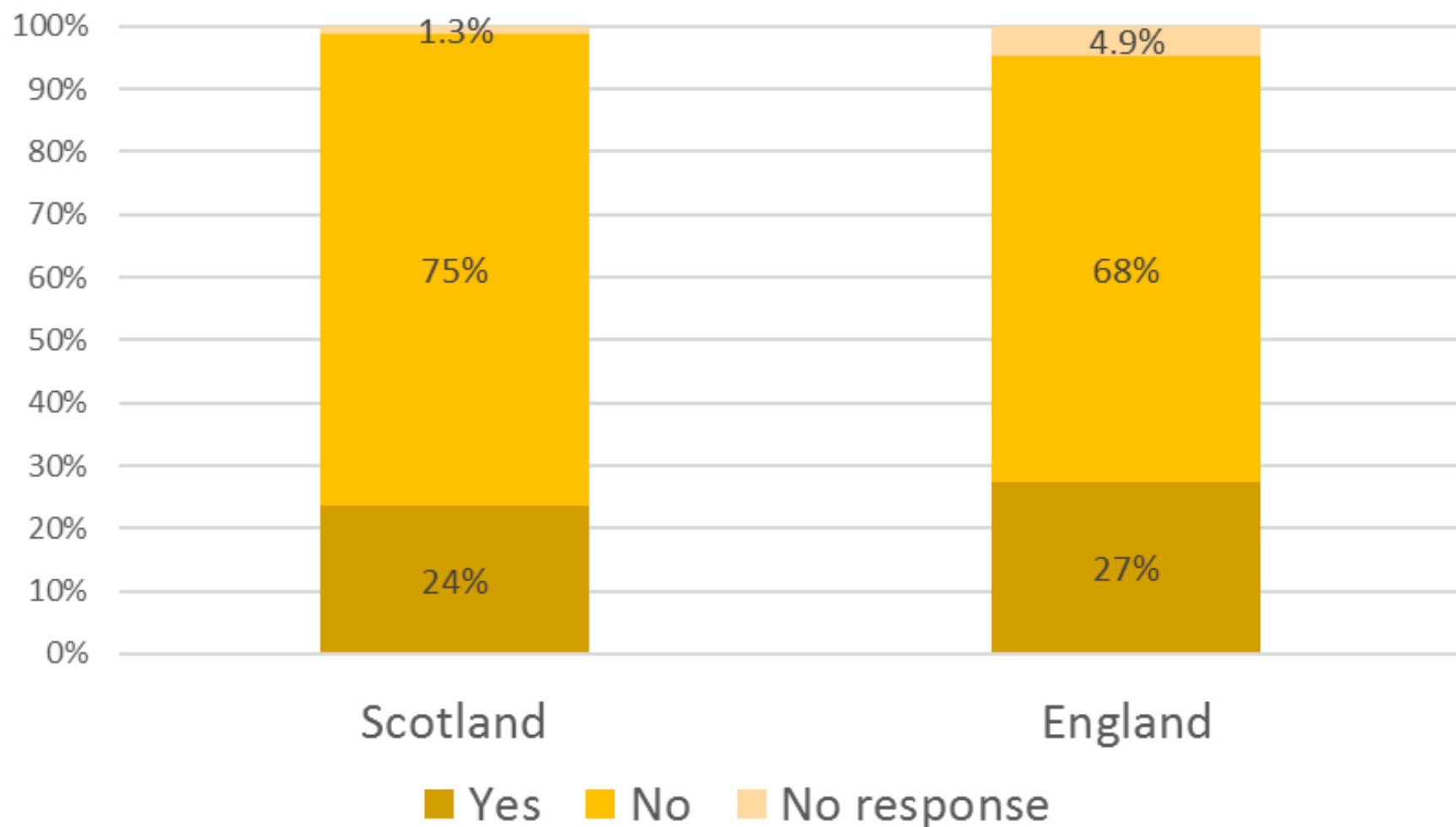Secondary outcomes:

  - drug-specific rates of use within the last month,

  - sources of alcohol purchase,

  - rates of higher risk drinking,

  - binge-drinking.

Sexual Health Clinics: response rates across three waves

Baseline data from Sexual Health Clinics

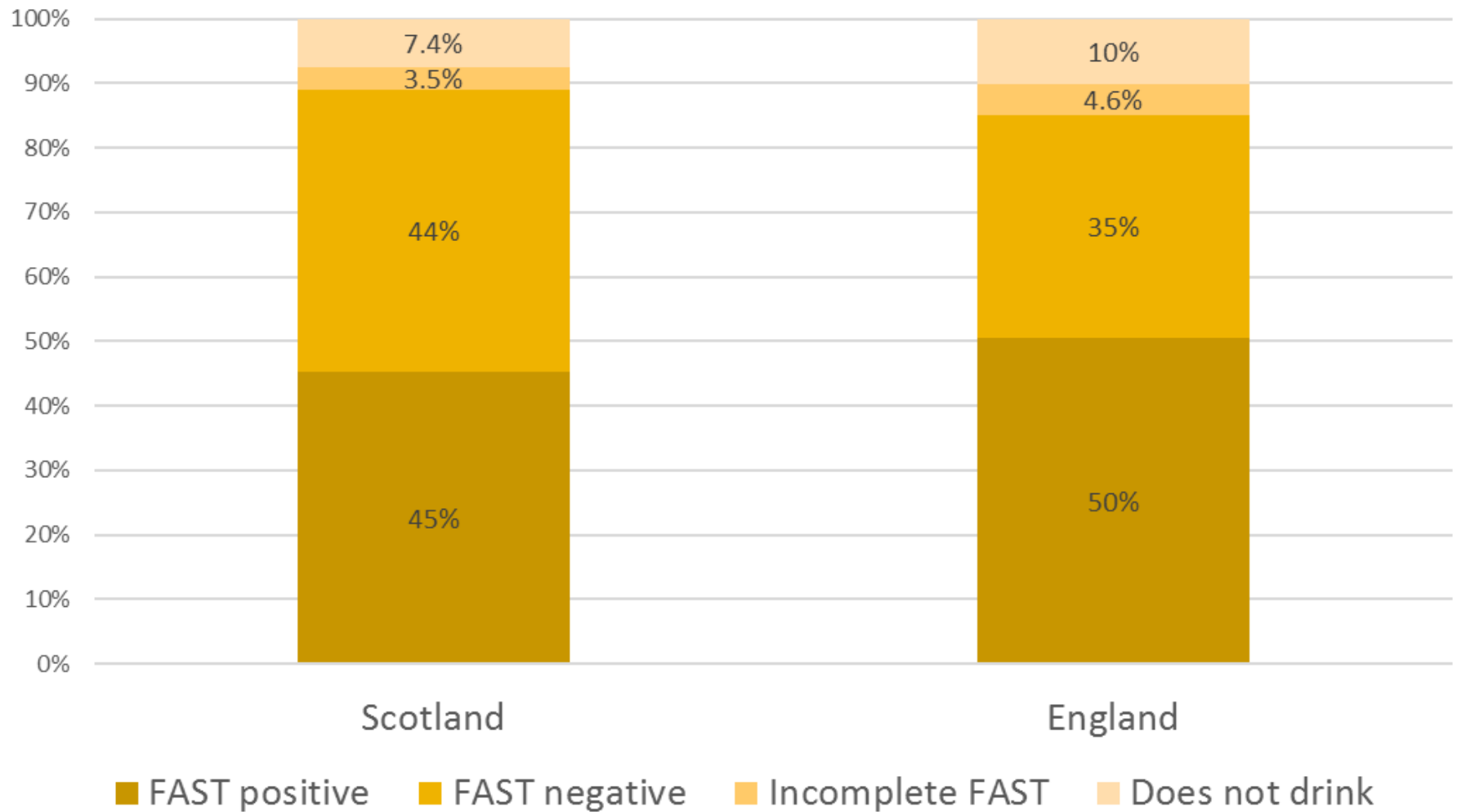Sexual Health Clinics: Taken any illicit drug in the last month
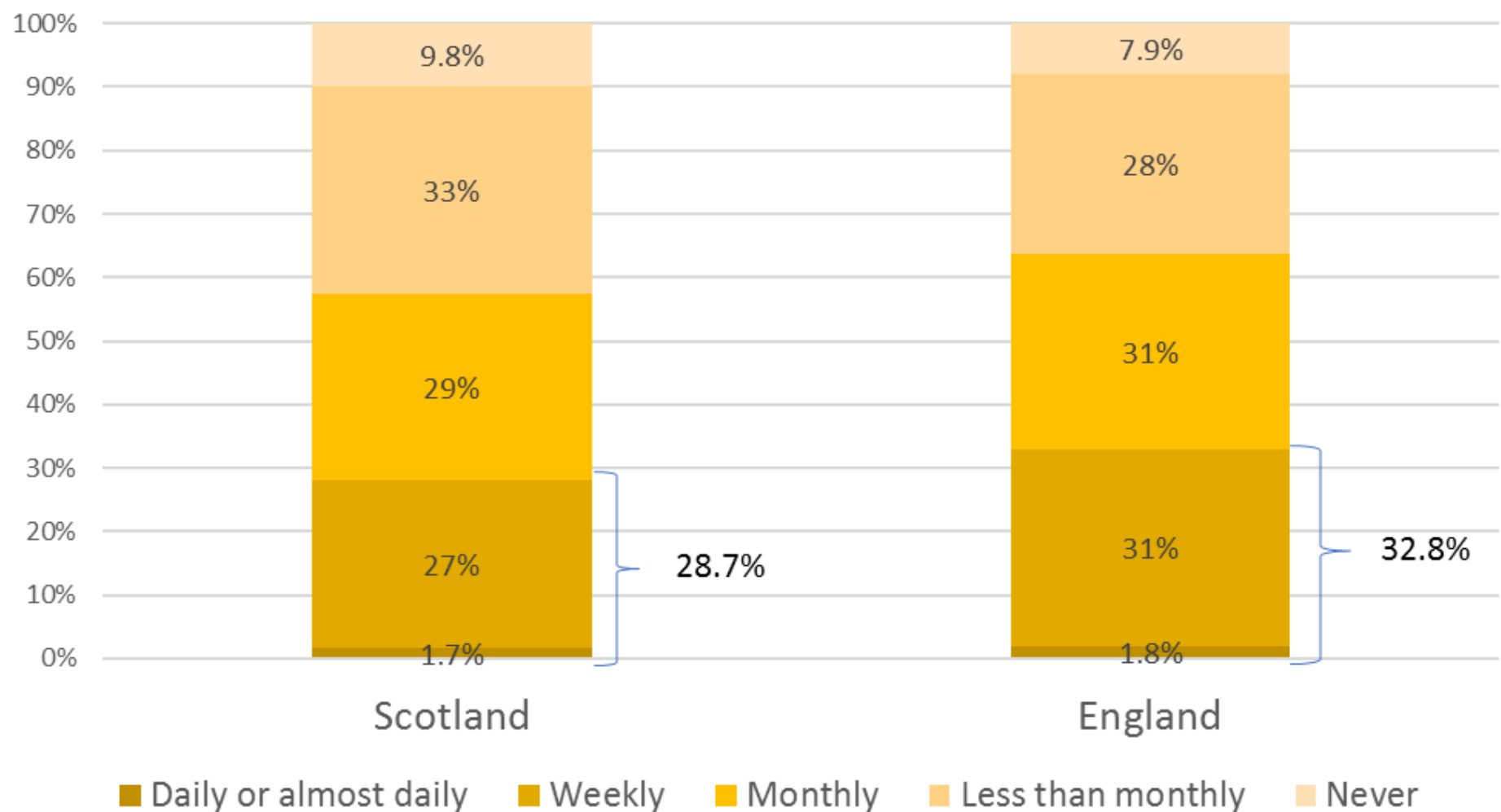
Baseline analysis for Sexual Health Clinics - Mean and Median FAST scores

Country	Mean	N	Std. Deviation	Median
Scotland	3.2	1859	2.7	3
England	3.6	2997	2.8	3
Total	3.5	4856	2.8	3

Sexual Health Clinics: Hazardous drinking (FAST ≥3)

Sexual Health Clinics: Binge drinking frequency in the last year for males and females*

* ≥8 or ≥6 units on a single occasion

Challenges to our quantitative projects

- ## Both ED and SHCs
  - Time pressures
  - Ensuring consistency
  - Maximising response rate
  - Staffing
  - Generalisability – additional data for all attendees
- ## ED only
  - Weather
  - Diagnostic analysis – additional data for interviewees
  - Equipment

Design and Methodology - Qualitative study of Communities

- Setting: three Scottish communities, two deprived and one affluent

- Data collection: before and after MUP implementation

  - Focus groups with drinkers about their attitudes and behaviours

  - Interviews with professional stakeholders about the implementation process.

NIHR-funded study to evaluate MUP - Summary

- Evaluate effects on compliance, consumption and harms – two quantitative components
  - Timing – three waves
  - Design – Natural Experiment
  - Emergency Departments
  - Sexual Health Clinics
- Explore attitudes and implementation methods – one qualitative component
  - Timing – two waves
  - Design – interviews and focus groups
  - Three Scottish communities

Conclusions so far

We must wait for our demographically and baseline alcohol and severity adjusted results before drawing conclusions on our hypotheses.

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Steering committee members and co-investigators

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Professor Sally Haw (SC

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More information

- SPHSU MUP NIHR funded project website:

http://mup.sphsu.gla.ac.uk

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- NHS Health Scotland MUP evaluation programme website:

http://www.healthscotland.scot/health-topics/alcohol/evaluation-of-minimum-unit-pricing-mup

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