

Relationship between alcohol outlet density and alcohol-related harm

North Ayrshire

North Ayrshire has an alcohol outlet availability* lower than Scotland as a whole, but has pockets of high availability; one fifth of neighbourhoods in North Ayrshire have an outlet density greater than the Scottish average. *measured by number of outlets within an 800m radius.

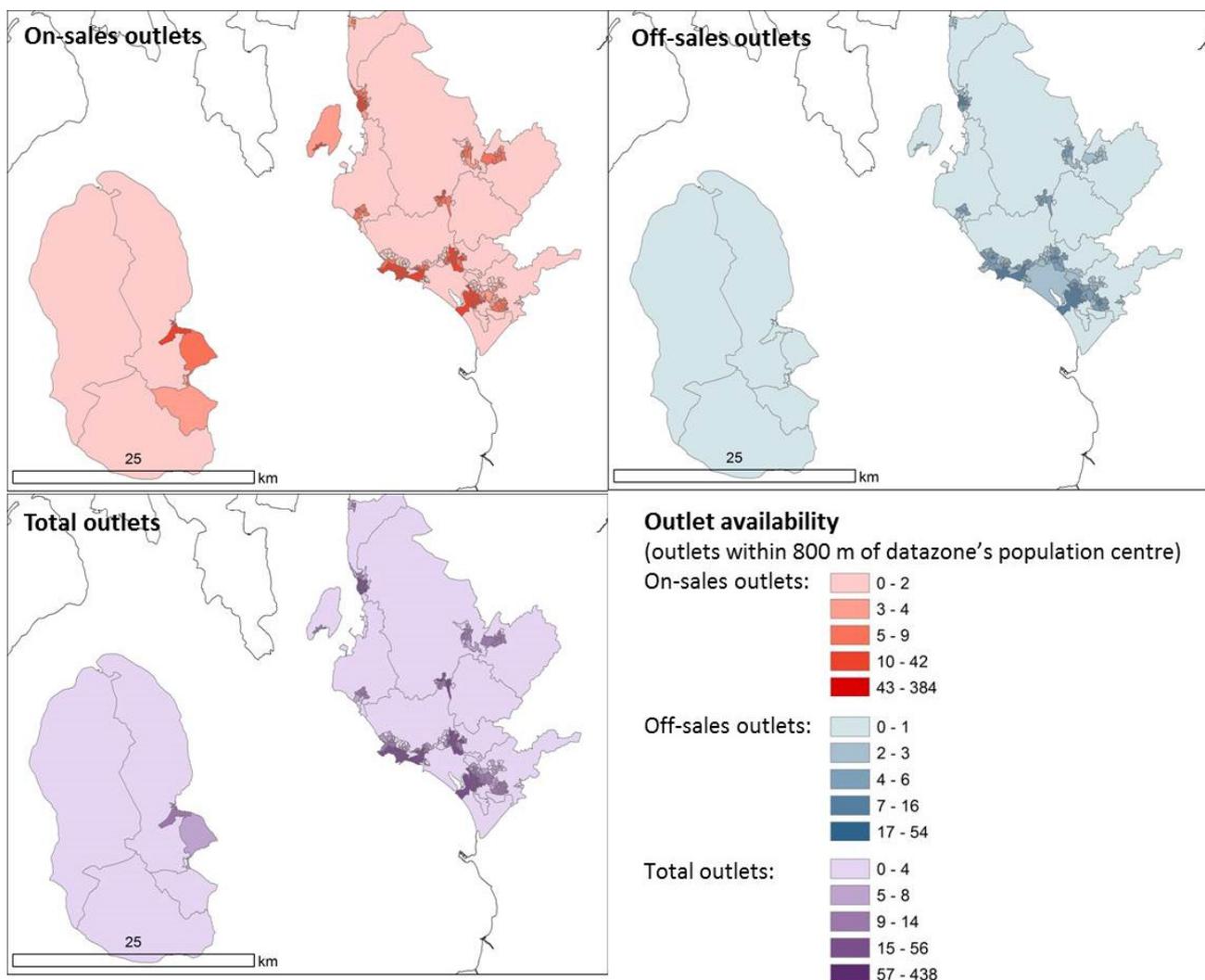


Figure 1: Maps showing the distribution of alcohol outlets across the local authority area, with darker shades representing higher concentrations of alcohol outlets

Investigating the relationship between licensed premises and health harm

Research from the universities of Edinburgh and Glasgow, which investigated whether alcohol-related illnesses and deaths across Scotland were related to the local availability of alcohol outlets, showed that [across Scotland alcohol-related hospitalisations and deaths were higher in areas with higher alcohol outlet availability](#).

This factsheet presents a summary of the research findings for the North Ayrshire. The Scotland-wide factsheet is available at www.alcohol-focus-scotland.org.uk

Alcohol outlet availability

Alcohol outlet availability was measured by counting the number of alcohol outlets within 800m of the population centre for every datazone in North Ayrshire. A datazone is a small area representing neighbourhoods of around 1000 residents. There are 179 datazones in North Ayrshire. A radius of 800m, or half a mile, represents a 10-minute walk at average pace.

- Overall there are **395 outlets** in North Ayrshire. Neighbourhoods had between 0 and 37 outlets within an 800m radius*, with an average of **11**. Although outlet density in North Ayrshire is lower than the Scottish average (16 outlets within 800m) it was similar to the Scottish average when Edinburgh and Glasgow are excluded (12 outlets within 800m).
- **19%** of datazones in North Ayrshire had an outlet density above 16 outlets within an 800m radius* (a density of 16 represents the average for Scotland).
- There are 275 **on-sales** alcohol outlets, with a neighbourhood average of 7 on-sales outlets within an 800m radius*.
- There are 120 **off-sales** alcohol outlets, with a neighbourhood average of 4 outlets within an 800m radius*. This off-sales density varies from 0 to 11 outlets within an 800m radius* - which represents a relatively low level of variation across the local authority.

*of the population centre

Alcohol-related harm

In North Ayrshire as a whole there is:

- ➔ An annual average of 35 alcohol-related **deaths** (26 deaths per 100,000 adults[§]). This is similar to the Scottish average of 25 deaths per 100,000.
- ➔ An average alcohol-related hospitalisation rate ratio of 148[§]. This is 48% higher than the Scottish average of 100.

[§]Death data from 2002 to 2011 and hospitalisation data from 2007 to 2010

Relationship between alcohol outlet availability and harm in North Ayrshire

A significant positive relationship was found between alcohol on-sales outlet density in North Ayrshire and alcohol-related deaths and hospitalisations. No significant relationship was found between off-sales density and alcohol-related harm.

- Areas with the highest density of **on-sales** premises had death rates 62% higher than areas with the lowest.
- Areas with the highest density of **off-sales** premises had death rates 35% higher than those areas with the lowest.

Summary: North Ayrshire has a similar level of outlet density to Scotland, when Glasgow and Edinburgh are excluded, and a similar alcohol-related death rate. The relationship between the density of alcohol on-sales outlets and alcohol-related harm seen in North Ayrshire reflects that seen in Scotland as a whole.

Off-sales: no significant relationship was seen between alcohol off-sales density and either alcohol-related deaths or hospitalisations. In North Ayrshire there may be insufficient variation in the off-sales density for a relationship to be found (see the Frequently Asked Questions for more information).

Interpreting the research findings

The strong relationship found in Scotland between alcohol outlet density and alcohol-related health outcomes suggests that the local availability of alcohol influences drinking behaviours and associated alcohol-related problems.

Different types of outlets result in different levels of alcohol availability in an area, for example a large supermarket will provide a greater volume of alcohol to an area than a small corner grocer. Even without this more detailed information a relationship between the density of alcohol outlets and alcohol-related harm was found for Scotland as a whole. It is likely that with more information (type of alcohol outlet, licensing hours, etc.) a more accurate estimate of the effect of outlet availability could be produced. At present this information is not consistently available.

This study shows a relationship between alcohol outlet density and alcohol-related health harms, but does not definitively conclude that there is a **causal relationship**. Proving something is “causal” with population level data is difficult because of the ethical and financial constraints in conducting the studies needed to prove a causal relationship. Often it is necessary to use the best possible population level evidence we have to determine what is **likely, probable** or **reasonable** in the absence of the studies that would provide “causal” evidence.

These findings agree with findings from other studies in Scotland and beyond (see the Appendix of [Factsheet 1](#) of the Licensing Toolkit for more information). The **accumulated evidence** on the effects of alcohol outlet density on alcohol-related harm is recognised to constitute sufficient evidence to support implementation of policies to control the overall availability of alcohol. That is why the United Nations Global Strategy on Alcohol, adopted by UN member states including the UK, includes regulation of the location of on- and off-sales alcohol outlets.

The Scotland-wide factsheet and full research report are available at:

www.alcohol-focus-scotland.org.uk

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