

Change in alcohol outlet density and alcohol-related harm to population health (CHALICE): a comprehensive record-linked database study in Wales

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Plain English summary

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What was the problem/question?

We know that excess alcohol consumption causes harmful effects to health and also leads to violence. We did not know whether or not a change in the availability of alcohol could lead to a change in the harm caused by alcohol. Our aim was to study patterns of harm in Wales related to changes in alcohol availability. We also wanted to see if the amount of harm was different in areas that were higher or lower in social deprivation.

What did we do?

To measure alcohol availability we took the average of the distances between all households and all licensed alcohol premises within a small geographical area. We then analysed the link between our new measure of alcohol availability and anonymised data from the Welsh Health Survey, hospital records and the police. We looked at harmful outcomes such as excessive alcohol consumption, hospital admissions and violent crimes.

What did we find?

We found that higher availability of alcohol and change over time were related to an increase in alcohol-related harm. We found that the patterns of harm were not the same across Wales. We found that more deprived local authority areas had higher levels of poorer health caused by alcohol and more violent crime.

What does this mean?

Our results suggest that changes in alcohol availability are related to the harmful effects of alcohol. We are now sharing our findings with the NHS, local government and alcohol charities. We aim to influence policy and practice to improve population health and reduce health inequality.

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