Neighbourhood factors and individual characteristics as predictors of at-risk and problem gambling among Massachusetts residents

What you need to know

Lotteries are the most popular form of gambling, and lottery agents are widespread in communities. This study examined how neighbourhood and individual characteristics are linked to lottery sales, lottery agent density, and at-risk and problem gambling (ARPG) in Massachusetts. Individual- and neighbourhood-level data and lottery sales data were drawn from various data sources. The researchers mapped lottery agent locations and sales data across 524 ZIP codes in Massachusetts.

People living in disadvantaged neighbourhoods did not spend more on lotteries than those living in more advantaged neighbourhoods. Disadvantaged neighbourhoods also did not have more lottery agents. Instead, lottery agents and lottery sales were higher in areas with more banks and grocery stores, as well as areas near the border and in vacation spots. The strongest predictor of ARPG at the individual level was having close friends or family members who gamble regularly.

What this research is about

At-risk and problem gambling (ARPG) is a public health concern. Previous research suggests that the availability of gambling opportunities can influence the risk of developing problem gambling. But less is known about how neighbourhood-level factors influence gambling behaviour. Lotteries are the most popular form of gambling, and lottery agents are a common sight in communities. This study examined how neighbourhood and individual characteristics are linked to lottery sales, lottery agent density, and ARPG in Massachusetts, USA.

What the researchers did

The researchers used data from various sources. Individual-level data came from the Baseline General Population Survey carried out as part of the Social and Economic Impacts of Gambling in Massachusetts (SEIGMA) study. The data used in this study were collected between 2013 and 2014 from 9,578 Massachusetts residents aged 18 years and older. The following information was examined:

- Gambling behaviour, including ARPG status, measured using the Problem and Pathological Gambling Measure. Participants were considered as gambling recreationally if they had a score of 0, or experiencing ARPG if they scored 1 or higher.
- Demographics, such as age, gender, education, race/ethnicity, and household income.
- Psychosocial factors, including binge drinking, tobacco use, military service, suicidal thoughts, and gambling among friends and family.

Neighbourhood-level data came from multiple public data sources: The American Community Survey, the Substance Abuse and Mental Health Services Administration, and the Massachusetts Bureau of Geographic Information. Physical environment characteristics included grocery stores, banks, major transportation routes, shelters, houses of worship, libraries, mental health facilities, substance abuse treatment locations, and schools.

Lottery sales data for all 8,239 licensed lottery agents in 2018 were obtained from the Massachusetts State Lottery Commission. As multiple lottery agents might have the same address, the researchers determined sales figures by address, resulting in 7,829 unique lottery agent locations. The researchers then used Geographic Information Systems (GIS) technology to map lottery agent locations and sales data across 524 ZIP codes in Massachusetts.

What the researchers found

Males were more likely than females to have ARPG. Black and Asian people were about twice as likely to have ARPG compared to white people. Binge drinking was linked to a higher risk of ARPG. But the strongest predictor of ARPG at the individual level was having close friends or family members who gamble regularly. In contrast, higher education and higher household income were linked to a lower risk.

At the neighbourhood level, areas with more Asian and Hispanic residents and residents with lower education levels exhibited higher rates of ARPG. Neighbourhoods with more libraries showed lower rates of ARPG. This suggests that libraries may act as a protective factor against ARPG.

Contrary to what the researchers expected, people living in disadvantaged neighbourhoods did not spend more on lotteries than those living in more advantaged neighbourhoods. Disadvantaged neighbourhoods also did not have more lottery agents. Instead, lottery agents were more common and lottery sales were higher in areas with more banks and grocery stores. Lottery agents and sales were also higher in areas near the Massachusetts border and in vacation spots (e.g., Cape Cod).

Some indicators of disadvantage, including percentage of people who were unemployed and percentage of single mothers, were linked to lower lottery sales as well as lower lottery agent density. This may reflect less disposable income among residents living in disadvantaged areas.

How you can use this research

This research can inform policy makers and public health on prevention efforts that consider both individual- and neighbourhood-level factors. Policy makers could consider investing in community resources, such as libraries, which serve as places for social interaction and entertainment and may act as a protective factor against ARPG.

About the researchers

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