

research snapshot

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Gambling spending is associated with accessibility of electronic gaming machines and neighbourhood socioeconomic status in Helsinki, Finland

What this research is about

Electronic gambling machines (EGMs) are one of the most harmful forms of gambling. The structural features of EGMs, such as fast speed of play, contribute to the high risk. There are also concerns that the accessibility and availability of EGMs are greater in socioeconomically disadvantaged areas. Availability is usually measured as the number of land-based gambling venues or the number of EGMs in a specific area. Accessibility refers to the cost of reaching gambling venues (e.g., distance, travel time, and monetary cost).

This study examined the link between EGM accessibility and the socioeconomic status of different neighbourhoods in Helsinki, Finland. It also examined whether the spending of people living in a neighbourhood on EGMs is linked with accessibility and the socioeconomic status of the neighbourhood.

What the researchers did

In Finland, EGMs are operated by the state-owned gambling monopoly Veikkaus. EGMs are widely available in everyday places, such as grocery stores. Since July 2021, people must prove their identity if they want to gamble on EGMs. Thus, the residential addresses of people who gamble on EGMs and their interactions with those machines are recorded.

This study used two databases: (1) socioeconomic status (SES) of the adult population, obtained from Statistics Finland for the years 2020 and 2021, and (2) data from the accounts of people who gambled on EGMs for the year 2022, provided by Veikkaus.

SES data were examined as grid data, with each grid cell representing an area of 250 x 250 m (a

What you need to know

This study examined the link between accessibility of electronic gaming machines (EGMs) and the socioeconomic status of neighbourhoods in Helsinki, Finland. It also examined whether EGM spending is linked with EGM accessibility and the socioeconomic status of neighbourhoods. Accessibility was measured in terms of density of and distance to EGMs. This study used two databases: (1) socioeconomic status (SES) of the adult population, obtained from Statistics Finland, and (2) player account-based gambling data, provided by Veikkaus. The analysis included data on 71,669 adults who gambled on EGMs, 745 EGM venues, and 2,397.1 EGMs. The findings suggest that EGMs are more accessible in neighbourhoods with lower SES. The annual losses per adult are also higher in those neighbourhoods. In other words, people living in the most disadvantaged neighbourhoods live closer and lose more money to EGMs, especially to machines close to their homes.

neighbourhood). The researchers used the following information to examine the SES of each grid cell: the total adult population, average age, number of employed and unemployed people, number of people with primary education only, and median net income (the middle income that divides the population into two groups). The original dataset included 6,643 cells with at least one adult resident. This represented a total of 950,309 adults. However, in this study, only grid cells with more than 10 adults were included. Additionally, only grid cells for which walking routes to EGM venues could be calculated using the

OpenStreetMap walking network were included. This left 4,953 grid cells with a total of 940,397 adults.

The player account-based data provided by Veikkaus included the following information: stakes and losses of each person who gambled on EGMs, and the street addresses for each person and each EGM venue. The original dataset included information on 72,980 adults who gambled on EGMs, 751 venues, and 2,554.2 EGMs. The researchers filtered out people whose address was not in a grid cell for which there was information on SES and walking routes. Therefore, the analysis included data on 71,669 adults who gambled on EGMs, 745 EGM venues, and 2,397.1 EGMs.

The researchers considered both density of and distance to EGMs in their measure of accessibility. An SES index was calculated for each neighbourhood based on the percentage of unemployed people, the percentage of people with only primary education, and the yearly median net income. The researchers also calculated an EGM vulnerability index for each neighbourhood based on the SES index and EGM accessibility.

What the researchers found

The most disadvantaged neighbourhoods had the highest number of reachable venues and EGMs. For example, on average, there were 1.6 venues and 7 EGMs within a distance of 500 m from the most disadvantaged neighbourhoods. By contrast, there were only 0.4 venues and 1.2 EGMs within the same distance from the most advantaged neighbourhoods. Vulnerable areas, where EGM accessibility was high and SES was low, tended to form clusters around EGM venues.

The annual losses per adult were higher in neighbourhoods with higher EGM accessibility and lower SES. Of the total EGM spending, 39% was from people living in the most disadvantaged neighbourhoods. Only 7% came from the most advantaged neighbourhoods.

These findings suggest that EGMs are more accessible in neighbourhoods with lower SES. In other words, people living in the most disadvantaged neighbourhoods live closer and lose more money to

EGMs, especially to machines close to their homes, compared to those living in more advantaged neighbourhoods.

How you can use this research

This research can inform the development of EGM regulations. Policy makers may want to consider restricting EGM gambling in areas with vulnerable populations.

About the researchers

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Citation

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