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Links between Smoking, E-cigarette and Cannabis use,
and Gambling in Ireland: What are the odds?



Links between Smoking, E-cigarette and Cannabis use, and Gambling in Ireland: What are the odds?

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Background

- ➔ Links between teenage gambling and tobacco and cannabis use have been reported for more than 25 years¹.
- ➔ In Ireland, data about teenage smoking, cannabis use and gambling are available but analyses lacking².
- ➔ E-cigarettes have been marketed and sold in Ireland for about a decade but, as in other jurisdictions, little is known about e-cigarette use and gambling.
- ➔ This study fills this gap by examining the links between smoking, e-cigarette and cannabis use, and gambling in 15-16 year olds in Ireland.

Methods

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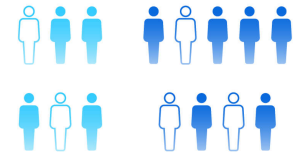
ESPAD has been collecting comparable data and monitoring trends on risk behaviours and substance use among teenage students for over 25 years in over 35 European countries.

ESPAD

It follows a common methodology for school surveys of students reaching the age of 16 years during the year of the data collection.



In Ireland, this cross-sectional, nationally representative survey is conducted in a stratified random sample of schools every four years among students aged 15–16 years.



Ireland has participated in all 7 ESPAD waves since 1995

Year	1995	1999*	2003*	2007	2011	2015	2019
Total (n)	1849	2277	2407	2221	2207	1470	1940

Methods

Descriptive and logistic regression analysis using Stata v16.

Limitations of the available data - Self-reported data, recall bias and under-reporting.



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Student Behaviour	n (%)
Ever-Smoking	
Not at all	1328 (68.4)
At least once	614 (31.6)
E-cigarette ever-use	
Not at all	1219 (62.7)
At least once	723 (37.2)
Cannabis ever-use	
Never	1565 (80.9)
At least once	370 (19.1)
Gambling (Any) - past year	
Never	1502 (77.1)
At least once	447 (22.9)

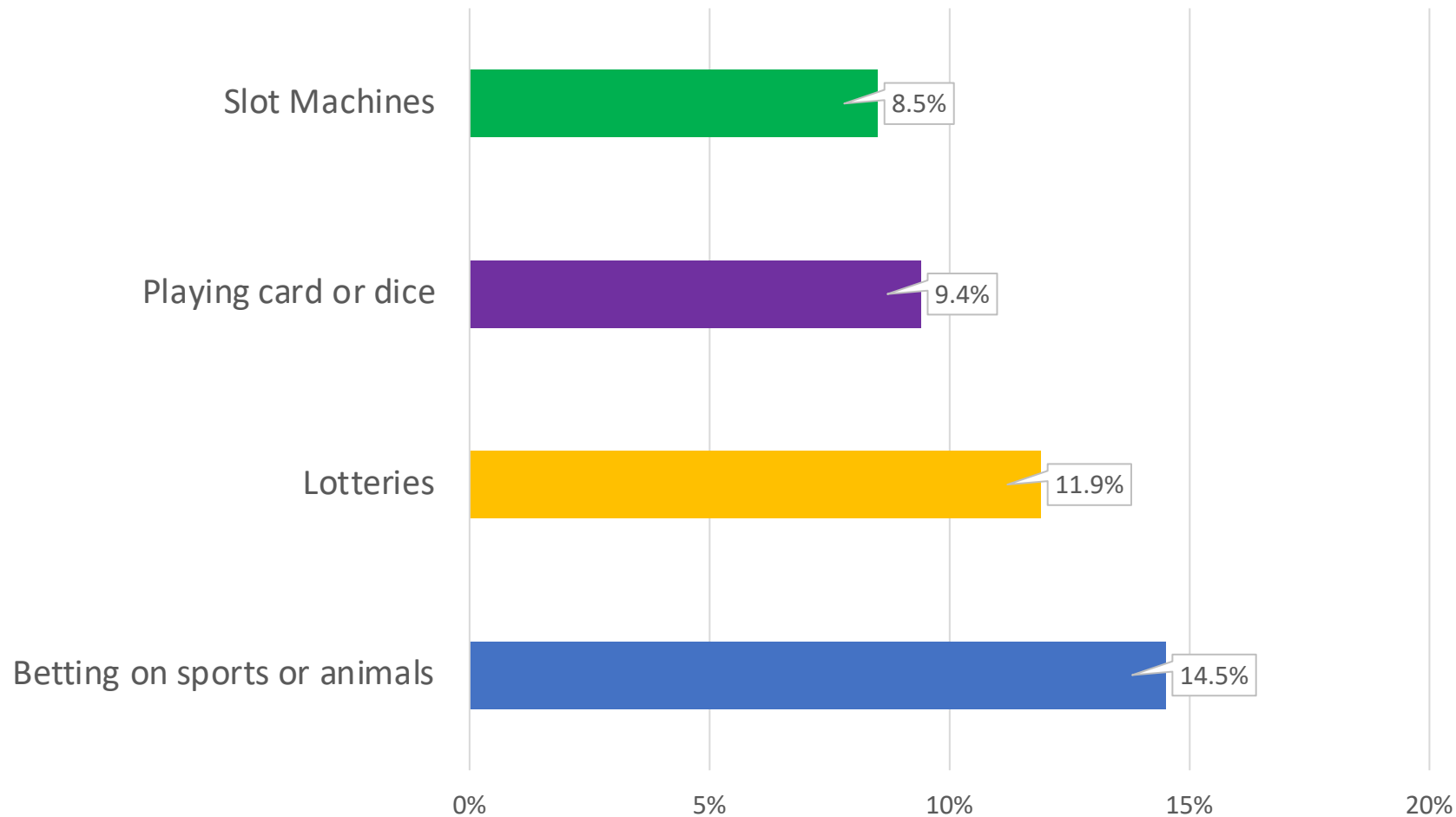
Table 1

Prevalence of ever-smoking, e-cigarette use, cannabis use, and past-year gambling among 15-16 year olds in Ireland

(Source: Sunday et al. 2020, *ESPAD Ireland 2019*. Dublin:TFRI.)

Figure 1 Types of Gambling

If you have gambled for money in the LAST 12 MONTHS,
which games have you played?





Problem Gambling

Have you ever felt the need to bet more and more money?

Have you ever had to lie to people important to you about how much you gambled?

Those who answered yes to one or both questions were considered problem gamblers.

Figure 2 Problem Gambling





46% vs 33%

More male students than female students had **ever**
used e-cigarettes



Gender Differences in Smoking, E-cigarette, Cannabis Use and Gambling



33% vs 30%

More male students than female students had **ever**
smoked



28% vs 18%

More male students than female students had
gambled in the last 12 months



25% vs 15%

More male students than female students had **ever**
tried cannabis

Gender Differences in Types of Gambling



Of all those who gambled in the last 12 months, there was a higher representation of boys gambling than girls across all categories:

- Betting on sports or animals – 75.1% v 24.9%
- Lotteries – 65.6% v 34.5%
- Playing card or dice- 73.0% v 27.0%
- Slot machines – 72.6% v 27.4%

Table 2

**Regression
Relationship
between gambling
and smoking, e-
cigarette, and
cannabis use
(Odds Ratios)**

	Gambling (Any) in the previous 12 months
	OR (95% CI)
Ever Smoking	
Not at all	Reference
At least once	1.84 (1.40, 2.43)***
E-cigarette ever-use	
Not at all	Reference
At least once	1.79 (1.44, 2.22)***
Cannabis ever-use	
Never	Reference
At least once	1.67 (1.29, 2.14)***

***** statistically significant at <.001**

Conclusions

Compared with girls, teenage boys have higher prevalence of all four risk behaviours, and especially gambling.

This study confirms, for Irish teenagers, previously reported links between smoking and gambling, and cannabis use and gambling.

A novel finding is that teenager e-cigarette use also has a similar relationship with, and comparable odds for, teenager gambling.



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Implications

Gender is important when considering risk factors for teenage substance use and gambling.

Lessons from Tobacco Control may be applicable to gambling, suggesting the possible value of a similar public health approach.



References

1. Griffiths, M. and Sutherland, I. (1998), Adolescent gambling and drug use. J. Community. Appl. Soc. Psychol., 8: 423-427.
2. Sunday, S., Keogan, S., Hanafin, J. and Clancy, L., 2020. ESPAD 2019 Ireland: Results from the European Schools Project on Alcohol and Other Drugs in Ireland. Dublin: DoH, TFRI.