



Gambling and problem gambling – Finnish Gambling 2019

Prevalence of at-risk gambling has decreased

MAIN FINDINGS

- Past-year prevalence of gambling at least one game type among the respondents was 78.4%.
- Past-year prevalence of online gambling was 36.3%.
- 2.5% of those who gambled accounted for one half (50%) of the total gambling expenditure.
- Past-year prevalence of problem gambling was 3.0% and at-risk gambling 10.7%. The prevalence of probable pathological gambling among the respondents was 1.4%.
- Concerned significant others of problem gamblers accounted for 21.1% of the respondents.

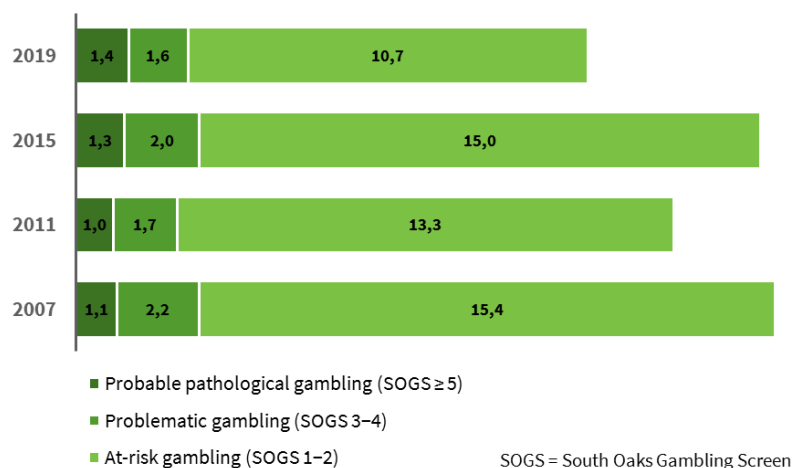
The Finnish Gambling population study examines gambling and problem gambling among Finnish people aged from 15 to 74 in 2007, 2011, 2015 and 2019. The study was conducted by the Finnish Institute for Health and Welfare, and commissioned and financed by the Ministry of Social Affairs and Health (section 52 of the Lotteries Act). The data collection for the study was carried out by Statistics Finland as computer-assisted telephone interviews (CATI). In 2019, 3,994 Finnish people took part in the study (response rate 52%).

Past-year prevalence of gambling at least one game type among the respondents was 78%. While this rate remained unchanged between 2015 and 2019, there were changes in gambling frequency. The proportion of respondents who gambled less often than once a month increased, whereas the proportion of those gambling more often than this decreased. In 2019, 29% of the respondents gambled at least once a week.

The term problem gambling is used to refer both to problematic gambling and pathological gambling. The past-year prevalence of problem gambling among the respondents was three per cent (approx. 112,000 people). In addition, approximately one in ten were at-risk level gamblers. At-risk gambling refers to gambling which causes individual harms and often precedes the development of problem gambling. There was no change in the prevalence of problem gambling from 2015 to 2019. The prevalence of at-risk gambling decreased, however.

Weekly lottery games and/or Jokeri (64%), scratch cards (47%) and slot machine games outside the casino (31%) were the most popular game types offered by Veikkaus Ltd. More than one out of three respondents had gambled online in the past 12 months, which was 13 percentage points more than in 2015. 2.5% of gamblers accounted for one half of the total gambling expenditure. Out of the 2,917,000 people living in Mainland Finland who gambled, this means 72,000 people.

Figure 1. Past-year prevalence of at-risk and problem gambling, respondents aged 15 to 74 between 2007 and 2019 (%).



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Six numbers in page 8 have been corrected.

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To be considered in this year's statistic:

Until the end of 2016, three state-controlled gambling operators had exclusive rights to organise gambling in Finland: Finland's Slot Machine Association (RAY), Veikkaus Oy and Fintoto Oy.

The Finnish gambling system was reformed in January 2017, and the three gambling operators were merged to form Veikkaus Ltd.

The purpose of the merger was to eliminate competition between the three former gambling operators and to prevent and reduce gambling harms more effectively.

Since 1 October 2010, the age limit for gambling has been 18 years, and following a transition period this age limit has also applied to slot machines since 1 July 2011. The previous age limit was 15.

General notes

Not only land-based gambling but also online gambling, either using a computer or a mobile device, are available in Finland.

The term 'land-based' gambling refers to games offered in environments other than the Internet, for example at operators' gambling locations (casinos, game arcades, etc.) and distributor locations (kiosks, grocery stores, restaurants, etc.).

Veikkaus Ltd has a casino located in Helsinki, and a second casino is being planned in Tampere.

Background

The Finnish Gambling population study examines gambling and problem gambling among Finnish people aged from 15 to 74 living in Mainland Finland in 2007, 2011, 2015 and 2019. The study was conducted by the Finnish Institute for Health and Welfare, and commissioned and financed by the Ministry of Social Affairs and Health (section 52 of the Lotteries Act). The data collection for the study was carried out by Statistics Finland as computer-assisted telephone interviews (CATI) between 2 September and 13 December 2019. In 2019, 3,994 Finnish people took part in the study (response rate 52%).

Gambling

Gambling refers to playing games where the winnings or losses comprise money or prizes of monetary value. Such games include for example weekly lottery games, slot machines, scratch cards and sports betting. Gambling is also available online. Under the Lotteries Act, lotteries – in other words, gambling – mean an activity in which participants may win a prize of monetary value based in full or in part on chance and in which there is a charge for participation. Gambling does not include video, console, computer and mobile games or other digital games that are not played for money or stakes consisting of money.

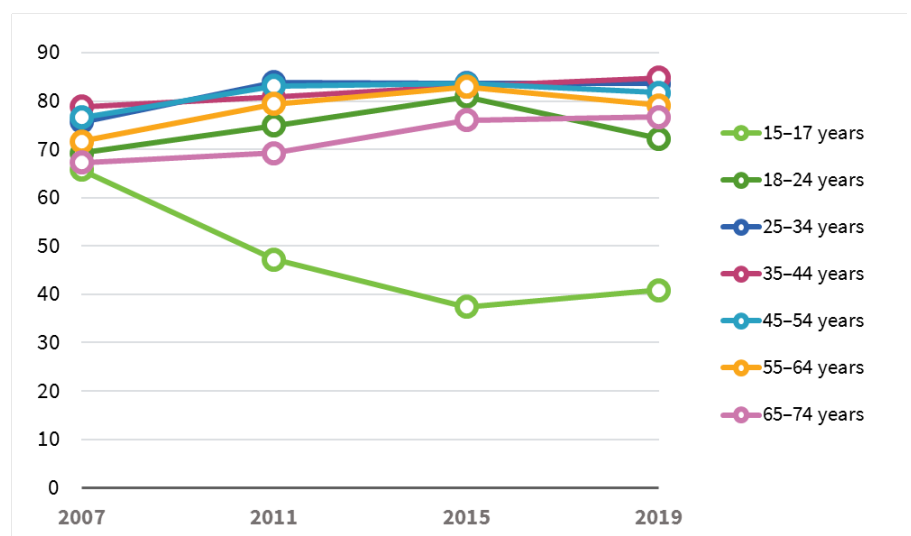
Prevalence of gambling

In 2019, the past-year prevalence of gambling at least one game type among the respondents was 78.4% (74.5% for women and 82.2% for men). This means approximately 2,917,000 people living in Mainland Finland.

The past-year prevalence of gambling at least one game type did not change between 2015 and 2019 (Appendix Table 1). On the other hand, the prevalence of gambling reduced among men between 2015 and 2019. An examination by age group showed that this reduction only concerned the age group 18 to 24 (Figure 2).

In total, the prevalence of gambling has increased compared to 2007. This increase concerns both genders and all age groups over 24. On the other hand, the proportion of gamblers aged from 15 to 17 decreased between 2007 and 2015, which is probably due to the change in the age limit for gambling.

Figure 2. Past-year gambling prevalence, respondents aged 15 to 74 by age group between 2007 and 2019 (%)



General notes

Veikkaus Ltd has exclusive rights to operate gambling games in Mainland Finland.

PAF (Ålands Penningautomatförening) operates gambling games in the Åland Islands as a monopoly. PAF operates games online but also on ships sailing between Finland and Sweden or Estonia.

The games offered by foreign gambling operators are mainly gambled online.

Participating in gambling offered by PAF and/or foreign gambling operators is not prohibited under Finnish legislation.

Finnish people can also participate in private betting and/or card games with money as stakes.

To be considered in this year's statistic:

The selection and offer of games change constantly: new games enter the market, and old ones may no longer be available.

Due to changes in the availability of games, the way in which the prevalence of playing different game types has been recorded has changed slightly from year to year. To enable cross-sectional comparisons, some game types have been combined for the purposes of this statistic.

As a result of game development, the characteristics of a game type, and thus the potential harms caused by it, may also have changed between 2007 and 2019.

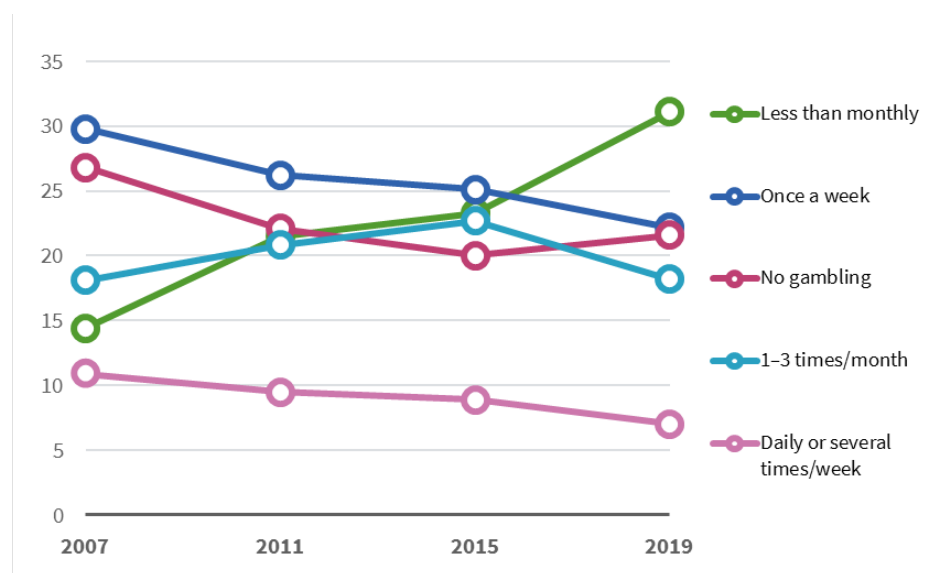
Gambling frequency

In 2019, more than one out of four respondents (29.2%) gambled once a week or more often (women 20.3%, men 38.0%). Men typically gambled one to three times a month (57.7%), whereas the most typical gambling frequency for women was less than once a month (37.6%) or one to three times a month (36.9%).

The prevalence of regular gambling decreased between 2015 and 2019 (Appendix tables 2 to 5, Figure 3). The prevalence of gambling daily or several times a week decreased in the age groups 18 to 24 and 55 to 64. On the other hand, the prevalence of gambling less often than once a month increased in all age groups except those aged between 45 and 54. The changes in gambling frequency were similar for both genders between 2015 and 2019.

The prevalence of gambling at least once a month also decreased between 2007 and 2019, whereas the prevalence of gambling less often than once a month increased in the same period. These changes have been similar for both genders.

Figure 3. Past-year gambling frequency, respondents aged 15 to 74 between 2007 and 2019 (%)



Prevalence of gambling games provided under the monopoly system

The past-year prevalence of gambling at least one game type offered by Veikkaus Ltd in 2019 was 77.9% (approx. 2,897,000 people; women 74.1%, men 81.5%).

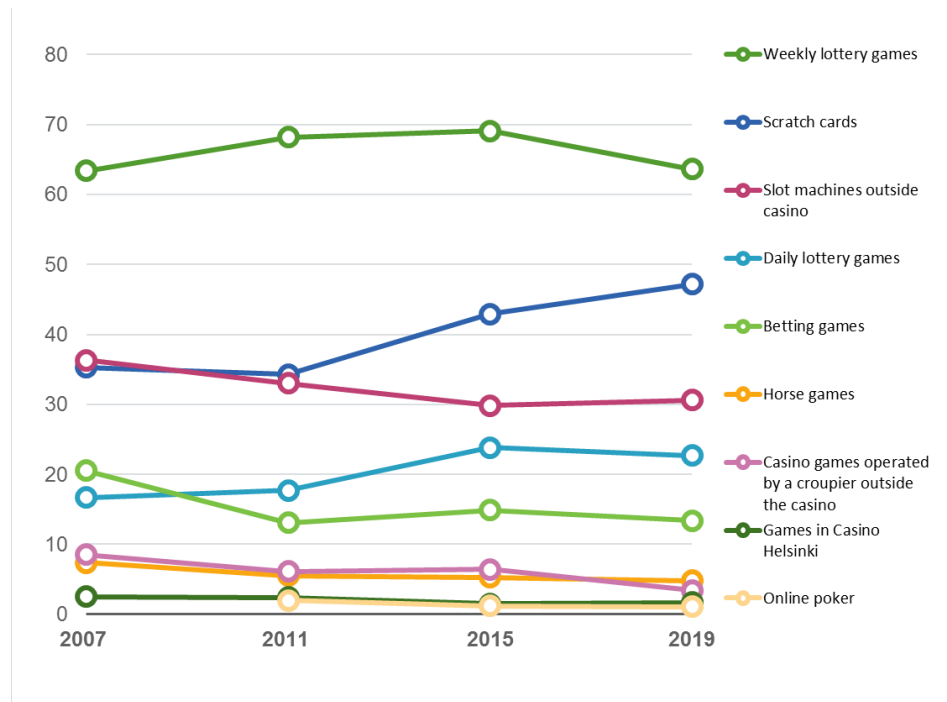
The most popular game types offered by Veikkaus Ltd were weekly lottery games and/or Jokeri (63.6%), scratch cards (47.2%) and slot machine games outside the casino (30.6%) (Appendix Table 6, Figure 4). These game types have ranked among the three most popular games since 2007. In the 2019 study, more detailed questions were asked about scratch card and slot machine gambling. In 2019, 44.6% of the respondents had opted for land-based scratch card games and 7.9% Veikkaus Ltd's online scratch cards, while 28.3% per cent had participated in slot machine games at legally approved outlets (kiosks, shopping centres, supermarkets, petrol stations, restaurants etc.), 5.2% in gambling arcades (mini-casinos) and 8.2% on Veikkaus Ltd's website.

The proportion of those who gambled weekly lottery games and/or Jokeri as well as casino table games (roulette, black jack) operated by a croupier outside the casino decreased between 2015 and 2019, whereas the proportion of respondents who gambled scratch cards increased in the same period.

The proportion of those who gambled weekly lottery games and/or Jokeri did not change between 2007 and 2019, however, whereas the prevalence of scratch card gambling and gambling daily lottery games has increased. On the other hand, the prevalence of sports

betting (excluding horse games but including football pools and multibet games) and playing slot machine games has declined. The proportion of those who gambled at Helsinki Casino or gambled croupier-operated table games (roulette, black jack) outside the casino and horse games decreased between 2015 and 2019.

Figure 4. Gambling game types provided under the monopoly system, respondents aged 15 to 74 between 2007 and 2019 (%)



Gambling by operator(s)

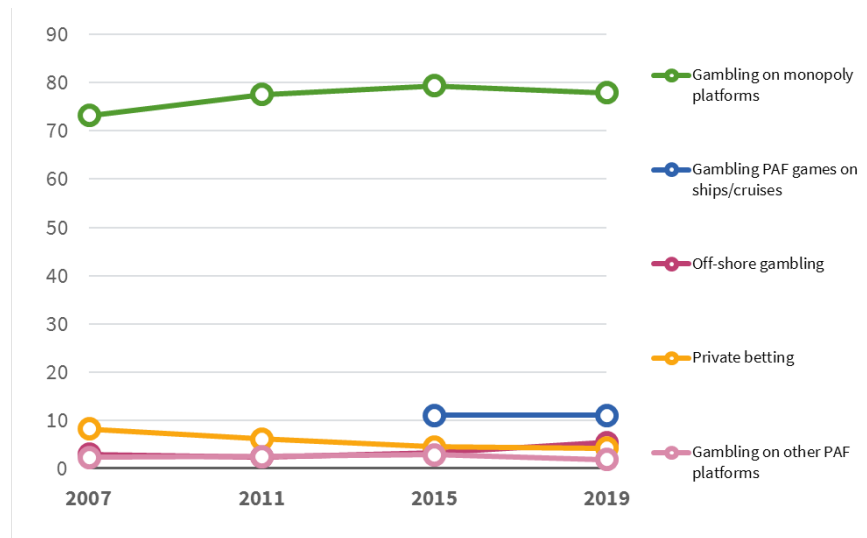
In 2019, participation in types of gambling provided under the monopoly system refers to Veikkaus Ltd's games, whereas in earlier years similar games were offered by three gambling operators: RAY, Fintoto and Veikkaus.

In 2019, 77.9% of the respondents had gambled at least one of the game types offered by Veikkaus. On the other hand, 6.2% (approx. 231,000 people) had gambled at least one non-monopoly online game (Appendix Table 7). This classification includes online gambling offered by PAF and foreign gambling companies (off-shore gambling) but not private betting and gambling PAF's games on ships. Almost all (98.1%) gamblers who gambled non-monopoly games had also gambled games offered in the monopoly system.

The proportion of respondents who gambled at least one game typed provided under the monopoly system did not change from 2015 to 2019 (Figure 5). The prevalence of gambling at least one non-monopoly online game increased by 1.1 percentage points, however: whereas 5.1% of gamblers gambled non-monopoly online games in 2015, the corresponding figure in 2019 was 6.2%. However, the proportion of those who gambled PAF's online games reduced from 2.8% to 1.8% between 2015 and 2019, while the proportion of those who gambled off-shore went up from 3.3% to 5.4% (Appendix Table 7).

While the proportion of respondents who gambled at least one game type available in the monopoly system has remained stable in recent years, it has nevertheless increased by 4.7 percentage points between 2007 and 2019. In the same period, the proportion of gamblers who participate in private betting and/or card games with money as stakes has dropped from 8.2% to 4.2%. The proportion of those opting for non-monopoly online games, on the other hand, has increased from 4.4% to 6.2%.

Figure 5. Past-year gambling prevalence by operator(s), respondents aged 15 to 74 between 2007 and 2019 (%)



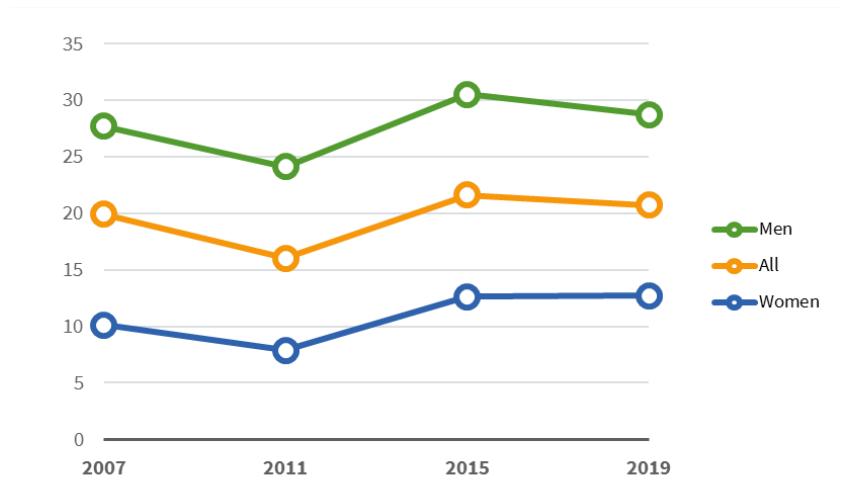
The respondents who gambled non-monopoly games (6.2%, n = 220) offered by either PAF or a foreign gambling operator were examined in greater detail. Those who had participated in private betting or gambled games on ships sailing to Sweden and/or Estonia were excluded from this examination. The gamblers in this group had an average of 2.7 different gaming accounts (range 0 to 30, median 2), while 30.4% had three or more accounts. Most typically, they gambled non-monopoly slot machine games, sports betting (excluding horse games) and poker. As the three most common reasons for non-monopoly gambling were reported good odds and better return rates, high winnings and a wider range of games.

Number of game types gambled

One out of five respondents (20.7%) had gambled at least four different game types (Appendix table 8) in 2019. The proportion of those who gambled at least four different game types did not change from 2015 to 2019; however, this proportion decreased in the age group 18 to 24, while it increased in the age group 45 to 54 in the same period.

Nevertheless, the prevalence of gambling at least four game types increased among women between 2007 and 2019 (Figure 6). There was a particular increase in the prevalence of gambling at least four game types in the age group 35 to 54 (Figure 6). On the other hand, the proportion of gamblers who gambled at least four game types decreased in the age group 15 to 17.

Figure 6. Past-year gambling, respondents aged 15 to 74 who gambled at least four game types between 2007 and 2019 (%)

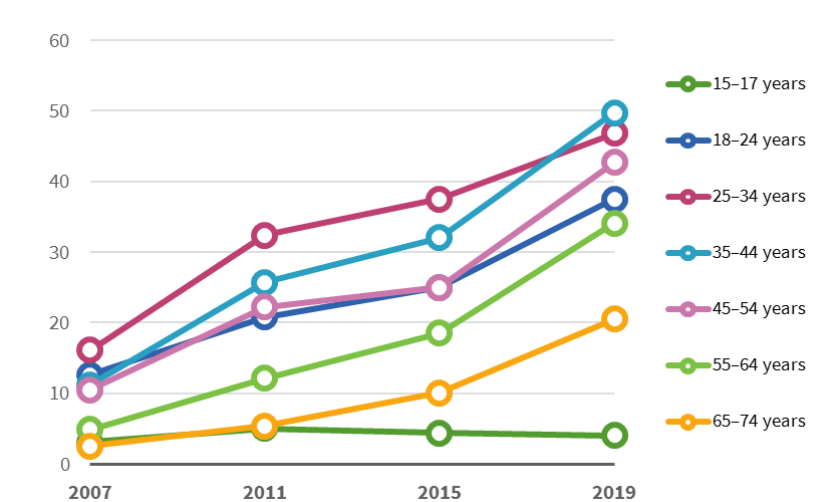


Gambling mode

The past-year prevalence of online gambling in 2019 was 36.3% (women 27.2%, men 46.0%) (Appendix table 9). In the same year, 14.0% had only gambled online, and 22.3% had gambled both online and land-based games. The proportion of those who only gambled land-based games was 41.8%.

The prevalence of online gambling has increased since 2007, and between 2015 and 2019, this increase was 12.7 percentage points. Since 2007, the change has been similar among both women and men, but also in all age groups of 18 or over (Figure 7).

Figure 7. Prevalence of online gambling, respondents aged 15 to 74 by age group between 2007 and 2019 (%)



Weekly gambling expenditure in 2019

Those who had participated in gambling in the last 12 months (n = 3,122) were asked to estimate the amount they spent on gambling. The average weekly gambling expenditure among past-year gamblers was €10.33 (95% confidence interval between €7.86 and €12.80, the median €2.5). The average was €15.60 for men (95% confidence interval €11.04–€20.17) and €4.47 for women (95% confidence interval €3.45– €5.50).

In 2019, 2.5% of gamblers accounted for 50% of the total gambling expenditure, while 17.8% accounted for 80% (Figure 8). This means that of the 2,917,000 people living in Mainland Finland who participated in gambling in 2019, 72,000 people spent one half of the total expenditure of that year.

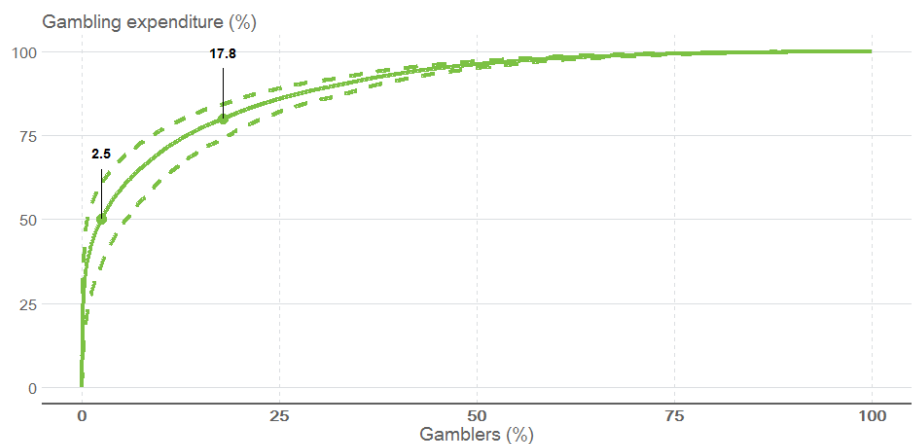
In 2019, the respondents were also asked for the first time about their gambling expenditure on Veikkaus Ltd's games. Of the total gambling expenditure of all those who gambled, 87.5% was spent on Veikkaus Ltd's games, while 12.5% was spent on non-monopoly games. For the part of online gamblers, Veikkaus Ltd's share in the expenditure was lower: 83.6% of the expenditure was spent on Veikkaus Ltd's games, while the share of non-monopoly games was 16.4%. In 2019, 642 respondents had also spent money on non-monopoly gambling. A more detailed examination of this group of gamblers showed that 77.4% of their expenditure was spent on games operated by Veikkaus Ltd, and the remaining 22.6% on non-monopoly games.

In 2019, the respondents were allowed to report their gambling expenditure based on gambling frequency of their choice. In earlier years, the questions regarding gambling expenditure were worded slightly differently, which is why cross-sectional studies of gambling expenditure are not included in this report. However, the total accumulation of gamblers' gambling expenditure between 2007 and 2015 is presented in Appendix figure 1.

CORRECTION TO NUMBERS 7.3.2023:

- 87,5 % should be 62,2 %
- 12,5 % should be 37,8 %
- 83,6 % should be 52,0 %
- 16,4 % should be 48,0 %
- 77,4 % should be 37,3 %
- 22,6 % should be 62,7 %

Figure 8. Total accumulation of gambling expenditure and 95% confidence intervals in 2019 among past-year gamblers



General notes

Two indicators were used to study the respondents' potential problem gambling.

- SOGS (the South Oaks Gambling Screen) has been used since 2003.
- SOGS results enable comparisons over the longest time period in Finland.
- PGSI (the Problem Gambling Severity Index) has been used since 2011.
- For example, PGSI results are suitable for comparing the prevalence of problem gambling in the Nordic countries.

Gamblers' experienced problem gambling

Problem gambling was primarily assessed using the SOGS (the South Oaks Gambling Screen; Lesieur & Blume 1987; 1993). The term problem gambling (SOGS ≥ 3) is used as an upper-level concept when talking about problematic and pathological gambling. These two categories are mutually exclusive. On the continuum describing gambling severity, probable pathological gambling (SOGS ≥ 5) is the most severe form. Problematic gambling, on the other hand, describes a less severe condition than pathological gambling which has negative consequences, such as health problems and financial difficulties. At-risk gambling (SOGS = 1–2) is the mildest form of the problem. It refers to gambling that does not cause significant harms to the gambler. On the other hand, it often precedes the development of a problem gambling.

Prevalence of problem gambling and at-risk gambling

The study of 2019 indicates that 3.0% of respondents aged from 15 to 74 engaged in problem gambling (approx. 112,000 people). Of these, 1.4% suffered from probable pathological gambling (approx. 52,000 people). 4.0% of men and 2.1% of women engaged in problem gambling (Figure 10). The prevalence of problem gambling was the highest in age groups 18 to 24 (5.3%) and 25 to 34 (4.8%). In 2019, the proportion of at-risk gamblers was 10.7% (approx. 397,000 people).

The prevalence of problem gambling did not change between 2015 and 2019 (Appendix table 10). However, the prevalence of at-risk and problem gambling (SOGS ≥ 1) decreased among both genders (Appendix table 11) and in all age groups except those aged 65 or over. The prevalence of at-risk gambling also decreased between 2007 and 2019 among men (Figure 9) and among those under 25 years and individuals between 35 to 54 years old.

The prevalence of probable pathological gambling did not change between 2015 and 2019, it also did not change from 2007 to 2019. In 2019, 1.9% of men and 0.9% of women suffered from probable pathological gambling.

In contrast, gambling without identified problems (SOGS = 0) increased from 2015 to 2019 (Figure 9). This increase was particularly noticeable among men and in the age groups 15 to 17 and 35 to 44 (Appendix table 12). Gambling without identified problems increased compared to year 2007. Of the respondents, 64.7% has gambled without identified problems.

Figure 9. Past-year prevalence rates of at-risk and problem gambling, respondents aged 15 to 74 between 2007 and 2019 (%).

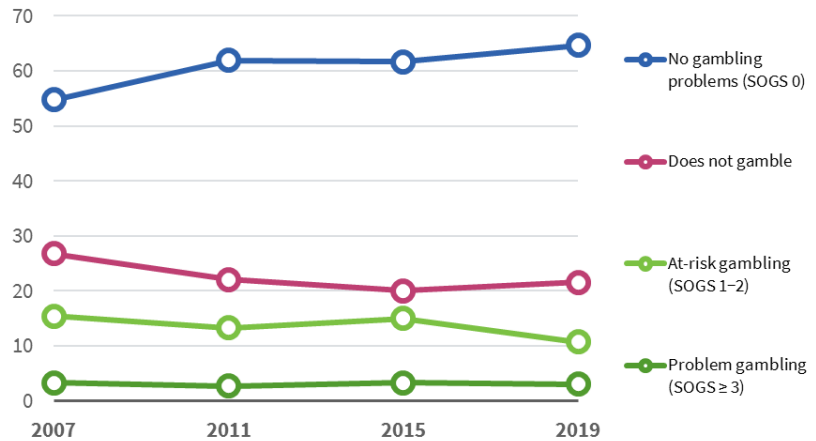
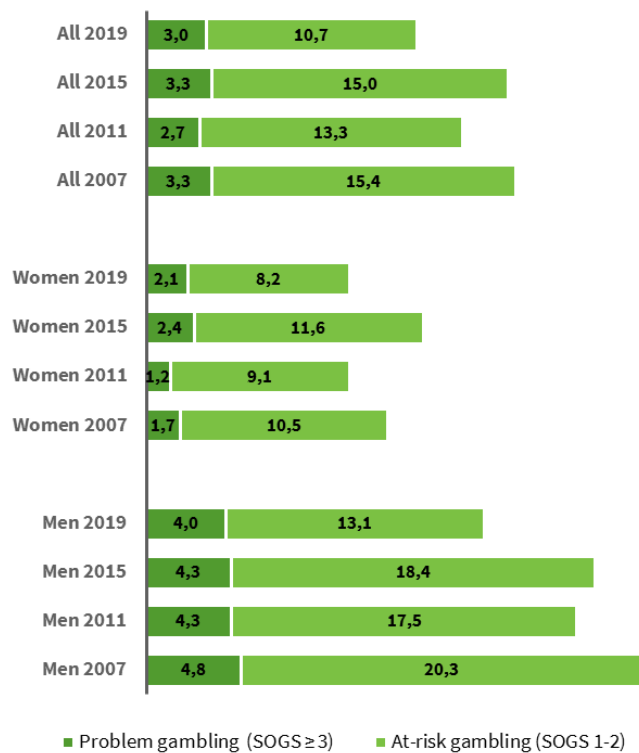


Figure 10. Past-year prevalence rates of at risk and problem gambling by gender, respondents aged 15 to 74 between 2007 and 2019 (%).



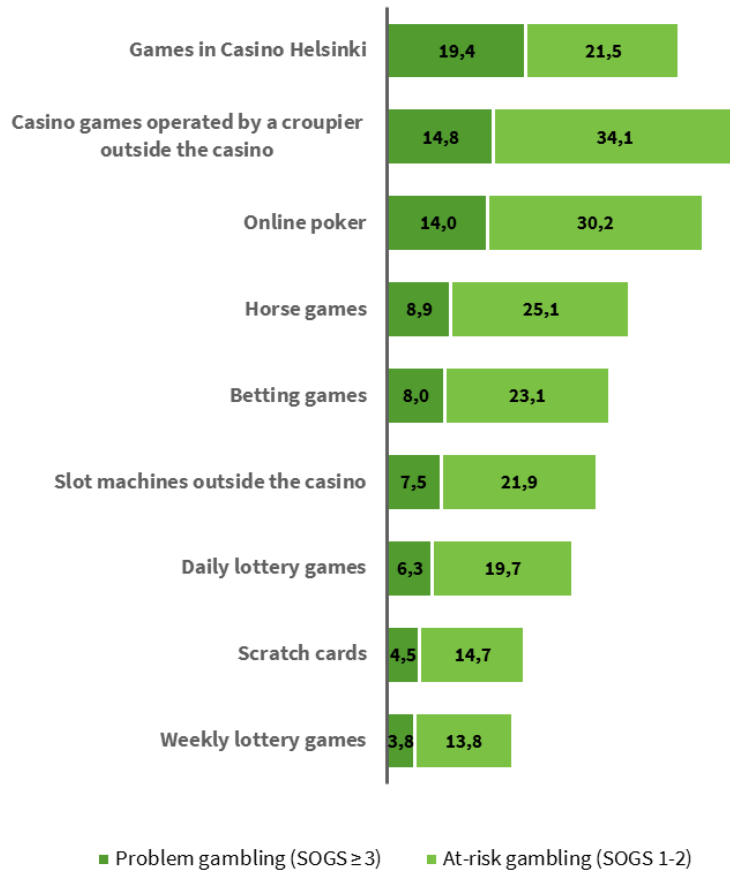
For corresponding results regarding the prevalence of problem gambling obtained using the PGSI, see Appendix table 13.

Problem gambling severity by gambling participation

The prevalence of at-risk and problem gambling was examined by participation in gambling (Appendix table 14). Problem gambling was more prevalent among those who gambled several times a week and participated in at least four game types than among the other respondents. At-risk gambling was more prevalent among those who gambled once a month or more often, or those who gambled at least three different game types, than among other gamblers.

When examining the gambling mode, among those who had gambled both online and land-based games at-risk or problem gambling was more prevalent. In 2019, questions about Veikkaus Ltd's membership (e.g. level of membership with certain incentives) were included. The membership programme is for registered patrons of Veikkaus Ltd. In order to move from one level to the next and access more attractive benefits, the customer must use responsible gambling tools, but on the other hand gamble more often than on the previous level. In addition to sales outlets, members can gamble Veikkaus Ltd's games online (e.g. on mobile devices). Veikkaus Ltd's members, particularly Silver and Gold level patrons, engaged in at-risk gambling or problem gambling more often than other gamblers. Those who had one or more non-monopoly gambling accounts also engaged in at-risk or problem gambling more often than other gamblers. Managed by the gambling operator, the gambling account records the gambler's gambling behaviour (game event data and money transfers). On the other hand, these gamblers were also more likely than others to gamble on a weekly basis and participate in a higher number of different game types.

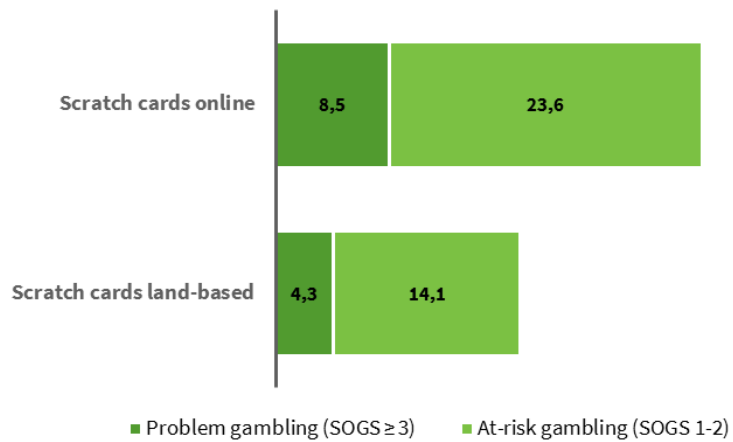
Figure 11. Problem gambling prevalence rates by participation in different game types, gamblers aged from 15 to 74 in 2019 (%)



Gambling severity by gambling different game types

When looking at the game types offered in the monopoly system, it was found that the problem gambling prevalence rate in 2019 was the highest for those who gambled at Helsinki Casino, those who opted for croupier-operated table games, and those who participated in online casino games (Appendix table 15, Figure 11). On the other hand, these gamblers were also more likely than others to gamble on a weekly basis and gamble more types of games. The lowest problem gambling prevalence was found among those who gambled weekly lottery games and/or Jokeri. A similar trend was also observed when examining at-risk and problem gambling.

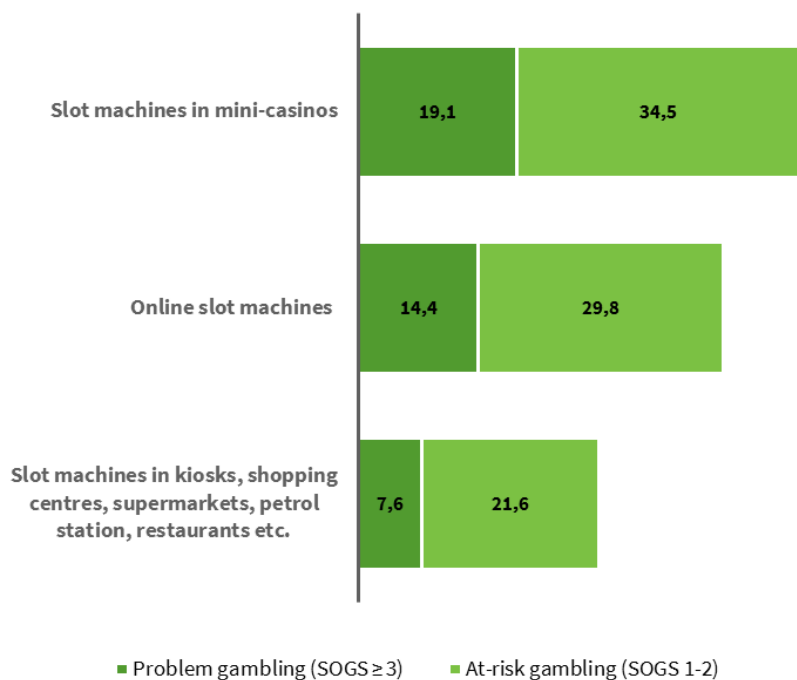
Figure 12. Problem gambling prevalence rates among land-based and online scratch card gamblers aged 15 to 74 in 2019 (%)



When we look separately at gamblers who gambled Veikkaus Ltd's land-based and online scratch cards, we find that the prevalence of problem gambling and at-risk level gambling was higher among those who gambled online scratch cards than among gamblers who opted for land-based scratch cards (Figure 12).

Those who gambled slot machine games in Veikkaus Ltd's arcades (Pelaamo, Feel Vegas, etc.) and on the operator's website were more likely to engage in problem gambling than those who gambled at legally approved outlets (supermarkets, kiosks, petrol stations, restaurants etc.) (Figure 13).

Figure 13. Problem gambling prevalence rates by different environments for slot machine gambling, gamblers aged from 15 to 74 in 2019



General notes

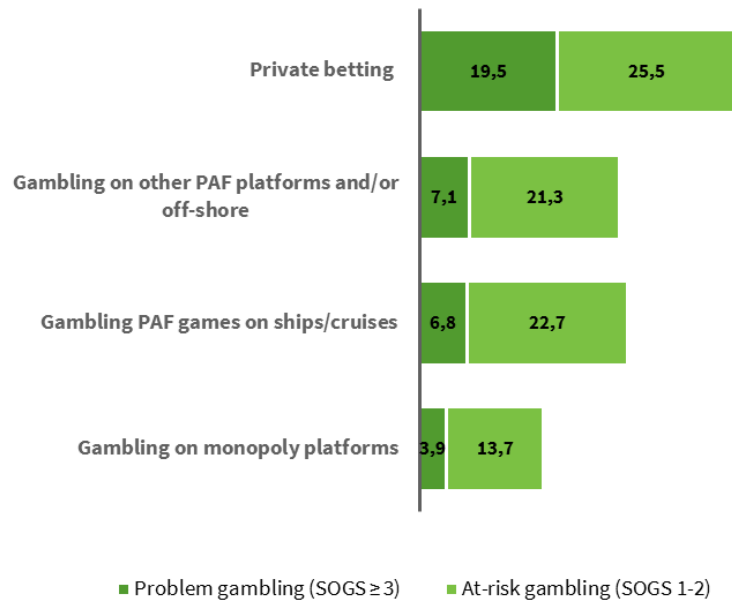
The assessment of gambling problems from the perspective of concerned significant others (CSOs) is based exclusively on the personal views of CSOs.

These views were examined through a single question about the gambling of different family members (father, mother, brother/sister, grandparent, spouse, child) or a friend important for the respondent.

No time span was specified in this question. Consequently, the responses can be interpreted to refer to the respondent's life in general terms.

In other words, the figures are not comparable with the responses concerning the respondents' personal past-year gambling behaviour.

Figure 14. Problem gambling prevalence rates among gamblers gambling games offered by different operators, gamblers aged from 15 to 74 in 2019



When we examine experienced gambling problems in 2019 by operator, we find that the prevalence of at-risk gambling and problem gambling was lower among those who gambled only games provided in the monopoly system than those who gambled non-monopoly games (Appendix table 16, figure 14). On the other hand, those who gambled non-monopoly games were also more likely than others to gamble on a weekly basis and more different types of games.

Concerned significant others of problem gamblers

According to the statistic for 2019, 21.1% of the respondents (approximately 790,000 people) reported having one or more significant others who had a gambling problem (Table 17, figure 15). The proportion of these respondents increased between 2015 and 2019, and also between 2007 and 2019. When examined by gender, it was found that the proportion of male respondents increased between 2015 and 2019, whereas the proportion of female respondents increased between 2007 and 2019.

The proportion of concerned significant others of problem gamblers among respondents aged 25 to 34 and 45 to 55 increased from 2007 to 2019, while in the age group 15 to 17, this proportion decreased from 18.4% to 9.7% in the same period.

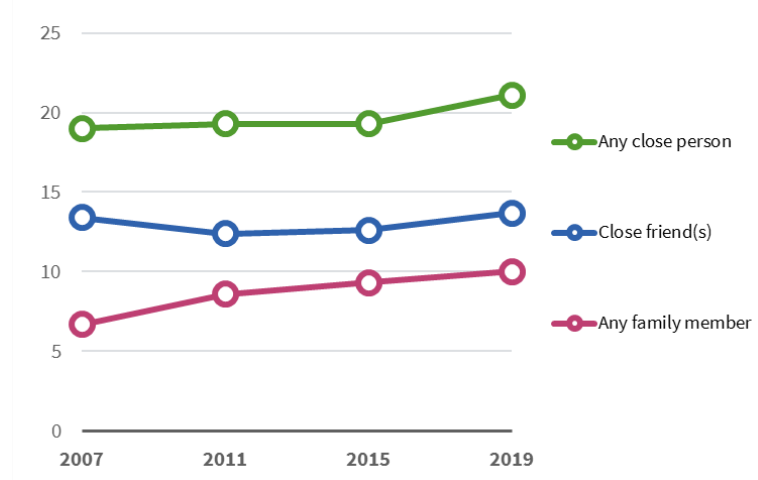
In 2019, the most likely person to have a gambling problem was a friend important for the respondent (13.7%) (Appendix table 18). The proportion of respondents who had at least one friend with a gambling problem did not change, apart from in the age group 15 to 17, between 2007 and 2019, whose proportion in fact decreased by 8.5 percentage points in this period.

One out of ten respondents (10.0%) had a family member with a gambling problem (Appendix table 19). The proportion of those who had at least one family member with a gambling problem did not change between 2015 and 2019. On the other hand, in 2019 the proportion of respondents who had at least one family member with a gambling problem was 3.3 percentage points higher than in 2007. This change was similar for both genders and in all age groups from 25 to 64.

In 2019, the family member with a gambling problem was most typically the respondent's sibling (3.2%), father (2.5%) or spouse (2.1%) (Appendix table 19). There was an increase in

the prevalence rate of problem gambling among respondents' fathers, siblings, grandparents and spouses between 2007 and 2019.

Figure 15. Concerned significant others of problem gamblers, respondents aged 15 to 74 between 2007 and 2019 (%)



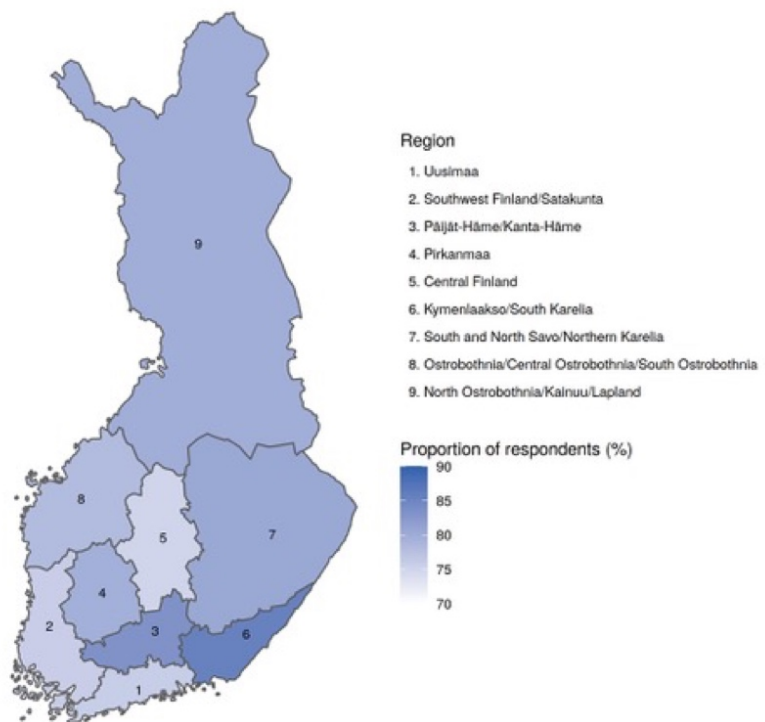
Regional comparisons

Past-year gambling

In 2019, the highest past-year gambling prevalence rates were found in Kymenlaakso/South Karelia (85.5%) as well as Päijät-Häme and Kanta-Häme (83.3%) (Appendix table 21, Figure 16) and the lowest in Central Finland (75.0%).

Between 2015 and 2019, the prevalence of gambling decreased in Southwest Finland/Satakunta. On the other hand, it increased in Uusimaa, Pirkanmaa, Kymenlaakso/South Karelia and North Ostrobothnia/Kainuu/Lapland between 2007 and 2019.

Figure 16. Gambled at least one game type during the past year, respondents aged 15 to 74 in 2019 (%)

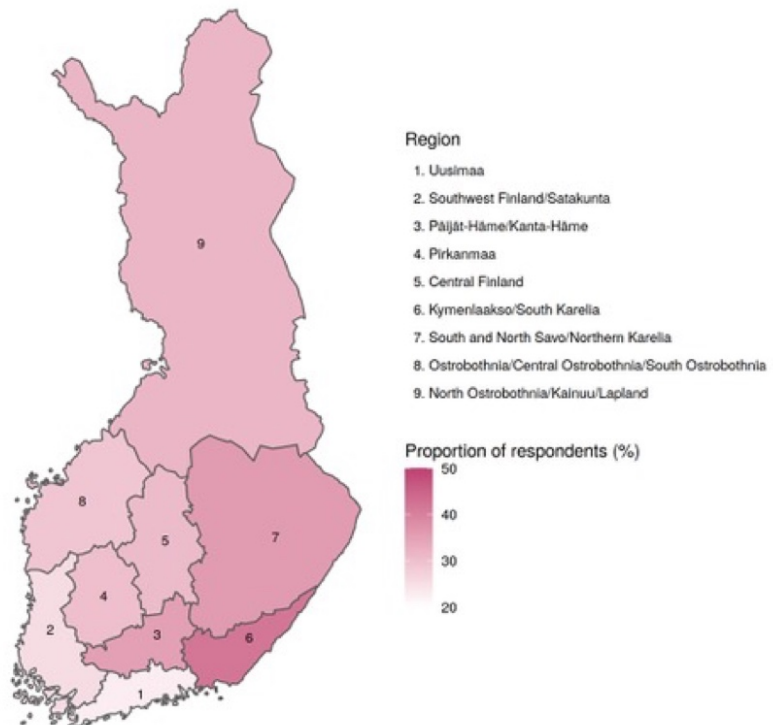


Weekly gambling

The highest past-year gambling prevalence rates for those who gambled at least once a week were found in Kymenlaakso/South Karelia (41.8 %) and Päijät-Häme and Kanta-Häme (83.3%) (Appendix table 22, Figure 17). The prevalence rate was the lowest in Uusimaa (22.8%).

The prevalence rate of gambling on a weekly basis reduced in Uusimaa, Southwest Finland/Satakunta and North Ostrobothnia/Kainuu/Lapland between 2015 and 2019. This rate decreased in all regions between 2007 and 2019, except in Kymenlaakso/South Karelia and South and North Savo/North Karelia.

Figure 17. Gambled at least once a week during the past year, respondents aged 15 to 74 in 2019 (%)

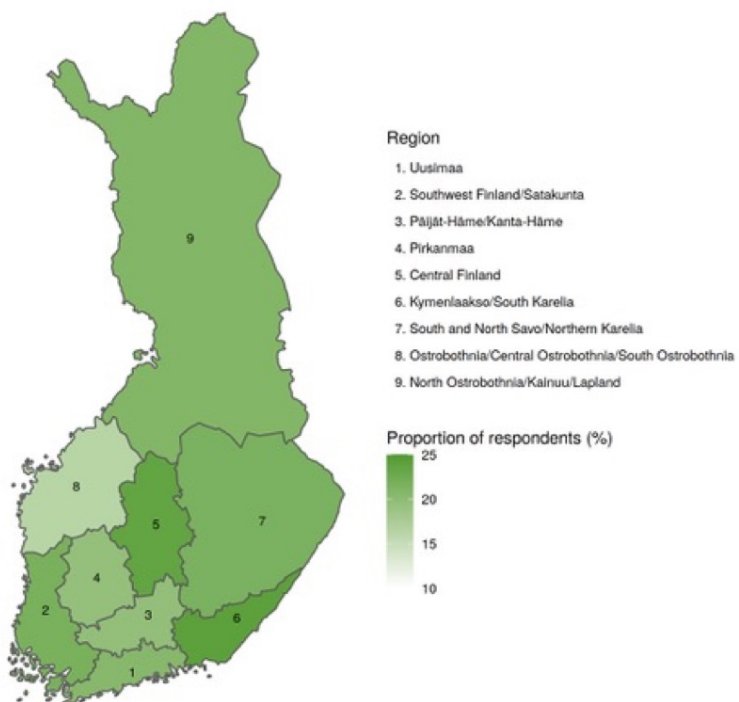


Gambling at least four game types

The highest past-year prevalence rates of gambling at least four game types in 2019 were found in Kymenlaakso/South Karelia (24.1%) and Central Finland (23.6%) (Appendix table 23, Figure 18), and the lowest rates in Ostrobothnia, Central Ostrobothnia and South Ostrobothnia (16.3%).

The past-year prevalence rate of gambling at least four game types did not change between 2015 and 2019. However, it increased in South and North Savo and North Karelia between 2007 and 2019.

Figure 18. Gambled at least four game types during the past year, respondents aged 15 to 74 in 2019 (%)

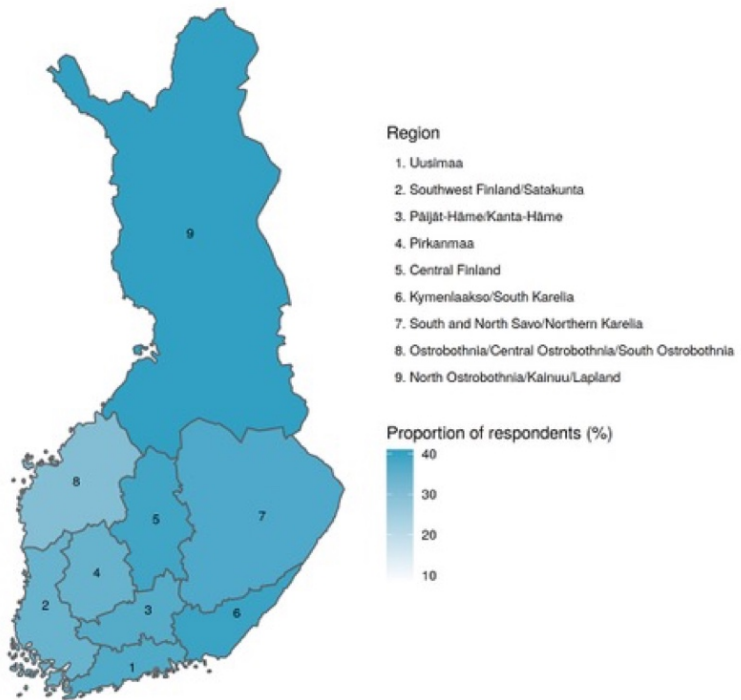


Online gambling

The past-year prevalence rates of online gambling in 2019 were the highest in North Ostrobothnia/Kainuu/Lapland (40.5%) and Kymenlaakso/South Karelia (39.5%) (Appendix table 24, Figure 19). The prevalence of online gambling was the lowest in Ostrobothnia, Central Ostrobothnia and South Ostrobothnia (30.1 %).

The prevalence of online gambling has increased in all regions since 2007.

Figure 19. Past-year online gambling, respondents aged 15 to 74 in 2019 (%)



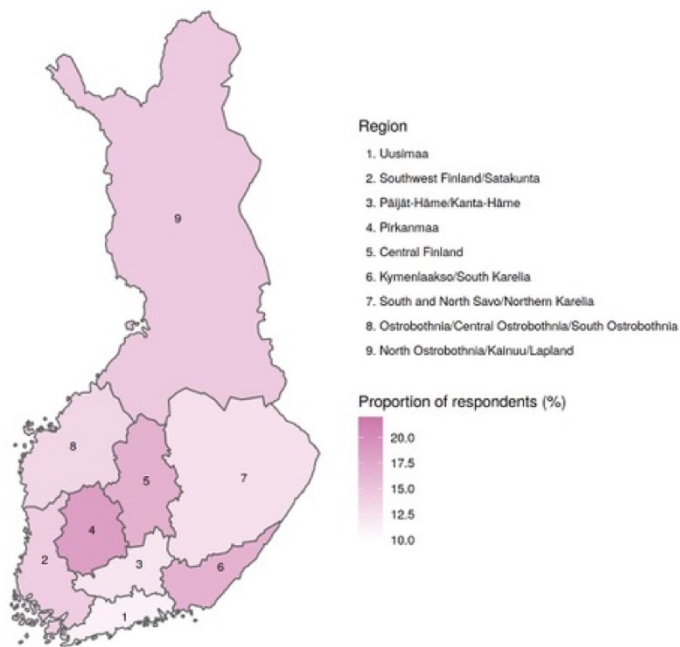
At-risk and problem gambling

The prevalence of at-risk and problem gambling in 2019 (SOGS ≥ 1) was the highest in Pirkanmaa (18.4%) (Appendix table 25, Figure 20) and the lowest in Uusimaa (11.0%), Päijät-Häme/Kanta-Häme (12.3%) as well as South and North Savo and North Karelia (12.7%).

The prevalence of at-risk and problem gambling decreased in Uusimaa, Southwest Finland/Satakunta and South and North Savo/North Karelia between 2015 and 2019.

Between 2007 and 2019, the prevalence of at-risk and problem gambling decreased in Uusimaa and South and North Savo/North Karelia but also in Päijät-Häme and Kanta-Häme.

Figure 20. Past-year prevalence of at-risk and problem gambling, respondents aged 15 to 74 in 2019 (%).

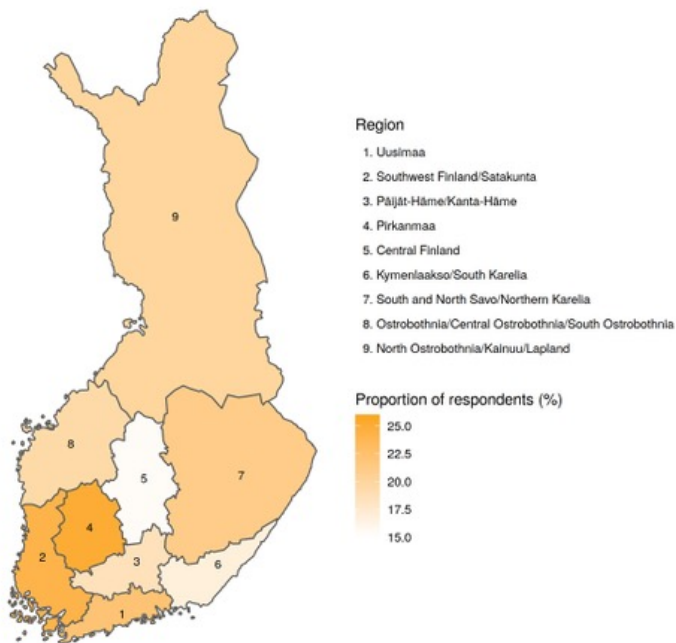


Concerned significant others of at least one problem gambler

According to the statistic for 2019, the highest prevalence of concerned significant others of problem gamblers was found in Pirkanmaa (25.1%) and Southwest Finland/Satakunta (24.2%) (Appendix table 26, Figure 21). On the other hand, the lowest prevalence rates of gambling experienced as problematic by concerned significant others were found in Central Finland (15.4%) and Kymenlaakso/South Karelia (16.8%).

The prevalence of concerned significant others of problem gamblers was higher in Uusimaa and Southwest Finland/Satakunta in 2019 than in 2015. The figure for 2019 was also higher than in 2007 in Southwest Finland/Satakunta.

Figure 21. Concerned significant others of problem gamblers in 2019 (%)



Terms and definitions

Problematic gambling: Problematic gambling describes a less severe condition than pathological gambling which has many negative consequences, such as health problems and financial difficulties. On the continuum describing the severity of problem gambling, it is found between at-risk gambling and pathological gambling.

PAF: Ålands Penningautomatförening. PAF is responsible for gambling activities in the Åland Islands, where it operates slot machines, casino games and sports betting as a monopoly. PAF also operates gambling games on passenger ships sailing across the Baltic Sea whose home port is located in the Åland Islands.

Gambling account: Under the Lotteries Act (section 4, 1047/2001), a gambling account means an account kept by a gambling company for a player for gambling in which money transfers between the gambling company and the player as well as gambling transactions are recorded.

PGSI: The Problem Gambling Severity Index. PGSI is an instrument measuring problem gambling by means of nine questions. In the Finnish Gambling population study, PGSI has been used as a secondary indicator for assessing the prevalence of problem gambling.

Game: In the context of gambling, a game refers to games where the winnings or losses comprise money or prizes of monetary value. They include lottery games, slot machines, land-based scratch cards and sports betting. Games are also available online. Under the Lotteries Act, lotteries – in other words, gambling– mean an activity in which participants may win a prize of monetary value based in full or in part on chance and in which there is a charge for participation.

Gambler: A gambler is a person who has gambled at least one game type.

Problem gambling: The term problem gambling is used as an upper-level concept when talking about problematic and pathological gambling. The latter two categories are mutually exclusive.

Pathological gambling: Pathological gambling refers to a condition in which the gambler has a strong and compulsive need to gamble; they are unable to control their gambling and therefore neglect both their basic needs and obligations. On the continuum describing the severity of problematic gambling, pathological gambling is the most severe form. It has been/is also referred to as a gambling disorder (GD). In this report, however, pathological gambling does not refer to a diagnosis based on a clinical assessment, which is why we use the term probable pathological gambling.

At-risk gambling: At-risk gambling refers to gambling that does not cause significant harms to the gambler. However, it often precedes the development of a gambling problem. On the continuum describing the severity of problematic gambling, at-risk gambling is the mildest form.

SOGS: The South Oaks Gambling Screen. SOGS is an instrument measuring problem gambling by means of 20 questions. In the Finnish Gambling population study, SOGS has been used as the primary indicator for assessing the prevalence of gambling problems.

Monopoly: In the Finnish system of exclusive rights to operate gambling, the Lotteries Act gives Veikkaus Ltd a monopoly for operating games in Mainland Finland. However, Finnish legislation does not prohibit gamblers from gambling the games provided by other operators, such as PAF, which operates under the legislation of the Åland Islands or off-shore operators (regulated or non-regulated online gambling providers).

Symbols used in the tables

. data too uncertain for presentation

.. data not available or too uncertain for presentation, or subject to secrecy

www.thl.fi/tilastot/rahapelaaminen

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Quality description

Finnish Gambling

The Finnish Gambling population study was commissioned by the Ministry of Social Affairs and Health and carried out by the Finnish Institute for Health and Welfare (THL). Under section 52 of the Lotteries Act (1047/2001), responsibility for monitoring gambling prevalence among the population as well as preventing and reducing gambling harms and developing treatment for them rests with the Ministry of Social Affairs and Health. The Ministry has assigned responsibility for fulfilling this obligation to the Finnish Institute for Health and Welfare. Launched in 2003 and carried out every four years, the Finnish Gambling population study is the key data source on gambling among the population in Finland. The study is planned by the Finnish Institute for Health and Welfare and financed by the Ministry of Social Affairs and Health (section 52 of the Lotteries Act).

Research data

The target population of the Finnish Gambling 2019 study was those living in Mainland Finland aged between 15 and 74 (household population). Persons living in institutions and persons whose mother tongue is other than Finnish, Swedish or Sámi were excluded from the study. The sample of 7,800 people was selected by means of systematic random sampling from a sampling frame formed on the basis of the Population Register Centre's register data and organised by municipality of residence ID. In other words, the subjects for the sample were selected from the sampling frame at regular intervals, starting at a randomly selected point. This ensured the regional representativeness of the sample. In total, 3,994 interviews were completed acceptably in 2019. After reducing overcoverage, the response rate was 51.9%.

The data collection for the Finnish Gambling 2019 study was carried out by the Data Collection Department of Statistics Finland on commission from the Finnish Institute for Health and Welfare between 2 September and 13 December 2019. Similarly to previous years, the data collection was carried out in Finnish or Swedish as computer assisted telephone interviews (CATI). The average interview duration was about 24 minutes (in 2015: 18 minutes). The duration of 75% of the interviews was 29 minutes or less (in 2015: 21 minutes). Towards the end of the data collection phase, the interview unit performed its usual tasks of attempting to reach subjects whom the first interviewer had been unable to contact. Respondents were approached again by a letter, telephone numbers were sought, and all efforts were made to reach the respondents. As there was a risk of a postal strike, the schedule for sending the letters had to be shortened. The interviewers were instructed to send letters urgently to all remaining potential subjects. As the postal strike took place between 11 and 27 November 2019, the importance of electronic communication was stressed. Originally scheduled to end on 29 November 2019, the data collection was extended by two weeks. During this period, particular efforts were made by the selected 12 interviewers to reach respondents at underrepresented addresses. Due to problems with mail delivery caused by the strike, at this point it was impossible to approach the subjects by letter. The efforts of the final two weeks produced around 160 additional interviews. The postal strike had the greatest impact on attempts to re-contact those who had previously refused to participate and those whose telephone numbers had not been found.

A cover letter and a brochure on the study were sent to the respondents. Two different types of cover letters were used: a regular one and a letter for those who hesitated about responding. As reaching respondents, and especially young people, has become more difficult over the years, this time separate versions of the brochure were produced for young people (aged 15 to 30) and subjects older than this. As an 'envelope filler', a bag of chewing gum was also sent to persons aged under 30, with the text "Information in suitable bites". The purpose of this was to attract the recipient to open the envelope and to remind them of the letter when the interviewer called. The interviewers additionally sent the Finland in Figures booklet recently published by Statistics Finland to all subjects.

An introductory video was also produced to facilitate the data collection, as the target group of which was specified especially those under 30. The interviewers found the video link an easy-to-use and effective tool especially in electronic communications (text messages, e-mails). In addition, Statistics Finland commissioned new cards for subjects whose valid telephone numbers could not be found despite the attempts to do so. The purpose of the card was to motivate respondents to report their contact information to the interviewer. These cards turned out to work well, and a decision was made to also use them in Statistics Finland's other data collections.

Relevance of statistical data

The Finnish Gambling population study examines problem gambling, opinions and attitudes towards gambling, and factors associated with them among Finnish people aged from 15 to 74. Regular collection of nationally representative monitoring data is the only reliable way of finding out how gambling, problem gambling, opinions and attitudes as well as phenomena closely related to them change over time.

Key principles of conducting the study have been maintaining data comparability over time and examining cross-sectional changes in key indicators. The key indicators are associated with gambling (game types, gambling frequency etc.), the prevalence of problem gambling, and opinions on gambling.

The study also strives to monitor and study current research themes and to keep up with the development of not only the gambling offer, gambling habits and gambling environments but also research methods. In addition, attitudes towards gambling have been surveyed since 2011 (Attitudes Towards Gambling Scale; ATGS-8; Wardle et al. 2011). The findings concerning attitudes and opinions in the data collected in 2019 will be published as a separate statistical report in 2020.

The purpose of the statistic is to produce reliable and up-to-date information for social welfare and healthcare researchers, experts, leaders and political decision-makers as well as those developing the prevention and reduction of gambling harms and treatment/support and care services related to these harms. The previous years' findings have been reported widely at various seminars and conferences as well as in several Finnish and international scientific peer reviewed journals.

Methodology

The statistic is based on cross-sectional study data from 2007, 2011, 2015 and 2019. The age group included in the study has changed: in 2007, the respondents were aged 15 and over, whereas since 2011, the study has been targeted at those aged 15 to 74. Of the data from 2007, only respondents aged 15 to 74 were included in this statistical report (n = 4,772).

The response rates of the study have varied in different years between 25.0% and 61.9% (Table 1). International comparison of population-based gambling studies using telephone interviews indicate that the average response rate is 52.5 % (Williams, Volberg, Stevens 2012; Salonen, Raisamo, Alho 2013). However, in the Finnish Gambling study the comparability of the figures is undermined by the fact that the share of overcoverage and non-response was not reported in great detail in Taloustutkimus' research data from 2007 and 2011. Reasons for overcoverage in 2019 were: dead (n = 15), unable to respond because of permanent disability or illness (n = 43), living permanently abroad (n = 21), permanently in institutional care (n = 6) and other gross non-response (n = 20).

In the data collected by Taloustutkimus, the main reasons for non-response were lack of telephone numbers and refusals. These reasons were clearly less common in the data collected by Statistics Finland in 2015 and 2019. The reasons for non-response in 2019 were: subject not reached because no telephone number could be found (n = 1,376), subject not reached (n = 402), subject was reached but they did not refuse directly (n = 692), subject refused (n = 1,062), and the interview was either interrupted or the form was not completed to the point of being acceptable (n = 169).

Table 1. Sample and response rates of interviews conducted between 2007 and 2019.

	2007	2011	2015	2019
Gross sample	20,000	16,000	7,400	7,800
Overcoverage	..	1	103	105
Final sample	..	15,999	7,297	7,695
Completed interviews	5,008	4,484	4,515	3,994
Non-response	..	11,515	2,782	3,701
Response rate	25.0	28.0	61.9	51.9

Source: Finnish Gambling 2019 population study

As in similar previous studies, the response rate was lower in the youngest than in the oldest age groups. In 2019, the response rate dropped in all age groups compared to 2015, most clearly among those aged 55 to 64. Unlike most surveys, in 2019 men participated in the interviews more actively than women in almost all age groups (Table 2). Men's response rate was also higher than women's in 2015. It is possible that gambling is a topic that motivates men to respond. The distribution of the response rate was also typical in geographical terms: the rate was lower for respondents living in cities than for those living in rural areas.

Table 2. Sample, respondents and response rates in different population groups in 2019.

	Sample	Respondents	Response rate
Total	7,695	3,994	51.9
Women	3,870	1,964	50.7
Men	3,825	2,030	53.1
Age group			
15 to 24	1,135	441	38.9
25 to 34	1,279	562	43.9
35 to 44	1,229	584	47.5
45 to 54	1,245	684	54.9
55 to 64	1,435	805	56.1
65 to 74	1,372	918	66.9
Gender x age			
Men aged 15 to 24	584	231	39.6
Women aged 15 to 24	551	210	38.1
Men aged 25 to 34	652	305	46.8
Women aged 25 to 34	627	257	41.0
Men aged 35 to 44	640	318	49.7
Women aged 35 to 44	589	266	45.2
Men aged 55 to 54	608	343	56.4
Women aged 55 to 54	637	341	53.5
Men aged 55 to 64	665	389	58.5
Women aged 55 to 64	770	416	54.0
Men aged 65 to 74	676	444	65.7
Women aged 65 to 74	696	474	68.1
Marital status			
Single	3,372	1,450	43.0
Married or in a registered relationship	3,207	1,938	60.4
Divorced	939	502	53.5
Widow/er	176	103	58.5

	Sample	Respondents	Response rate
Region			
Uusimaa	2,195	1,101	50.2
Southwest Finland	675	362	53.6
Satakunta	320	176	55.0
Kanta-Häme	240	114	47.5
Pirkanmaa	750	399	53.2
Päijät-Häme	295	164	55.6
Kymenlaakso	249	106	42.6
South Karelia	179	100	55.9
South Savo	210	89	42.4
North Savo	357	190	53.2
North Karelia	235	133	56.6
Central Finland	399	196	49.1
South Ostrobothnia	273	145	53.1
Ostrobothnia	244	141	57.8
Central Ostrobothnia	100	65	65.0
North Ostrobothnia	615	321	52.2
Kainuu	106	54	50.9
Lapland	253	138	54.5
Major region			
Helsinki-Uusimaa	2,210	1,116	50.5
Southern Finland	1,632	840	51.5
Western Finland	1,976	1,047	53.0
Northern and Eastern Finland	1,877	991	52.8
Urban-rural classification			
Inner urban area	2,530	1,260	49.8
Outer urban area	2,046	991	48.4
Peri-urban area	885	485	54.8
Local centres in rural areas	420	219	52.1
Rural areas close to urban areas	550	303	55.1
Rural heartland areas	844	503	59.6
Sparsely populated rural areas	402	233	58.0
Education			
At most basic education or not known	1,781	773	43.4
Secondary education	3,381	1,654	48.9
Lowest level tertiary education	763	495	64.9
Lower tertiary level	912	539	59.1
Higher tertiary level or doctorate	858	533	62.1

Source: Finnish Gambling 2019 population study

For detailed descriptions of the data for 2007, 2011 and 2015, see the basic reports for each year (Aho & Turja 2007, Turja et al. 2012, Salonen & Raisamo 2015). In 2015, a lower socio-economic status was associated with a lower response rate, which may cause bias while studying the gambling behaviour of socio-economically vulnerable individuals (Kontto et al. 2019). Significant challenges that undermine comparability were associated with using the research data from 2003 (Ilkas & Turja 2003), and they were thus excluded.

The weighting of the research data is based on a calibration method, in which the estimated distributions of selected variables are calibrated based on distributions in the population. This method aims to reduce the bias caused by non-response and to improve the efficiency of estimation.

In the 2019 study, the age/gender distribution of the sampling frame (November 2019) (age classes 15 to 19, 20 to 24, 25 to 34, 35 to 49, 50 to 64, 65 to 74) and regional distributions (region, 18 classes, and urban/rural classification, 7 classes) were used to calibrate the weights. Other factors potentially affecting the non-response rate, including education and employment status, were not taken into account. Design weights were calibrated using the CALMAR2 macro based on the raking ratio distance function. The weight variations were restricted at the lower and upper end. The method used to calculate the weights of the research data for 2007, 2011 and 2015 is described in the basic reports for each year. For the respondents' background information by respondent group, see Table 3.

Table 3. Respondents by respondent group in 2019 (%)

	Unweighted data		Weighted data	
	n	%	n	%
Total	3,994	100.0	3,994	100.0
Gender				
Women	1,964	49.2	1,995	50.0
Men	2,030	50.8	1,994	50.0
Age group				
15 to 17	144	3.6	176	4.4
18 to 24	297	7.4	395	9.9
25 to 34	562	14.1	647	16.2
35 to 44	584	14.6	623	15.6
45 to 54	684	17.1	679	17.0
55 to 64	805	20.2	743	18.6
65 to 74	918	23.0	731	18.3
Region				
Uusimaa	1,101	27.6	1,159	29.0
Southwest Finland/Satakunta	538	13.5	512	12.8
Päijät-Häme/Kanta-Häme	278	7.0	276	6.9
Pirkanmaa	399	10.0	387	9.7
Central Finland	196	4.9	208	5.2
Kymenlaakso/South Karelia	206	5.2	220	5.5
South and North Savo/Northern Karelia	412	10.3	417	10.4
Ostrobothnia, Central Ostrobothnia, South Ostrobothnia	351	8.8	319	8.0
North Ostrobothnia/Kainuu/Lapland	513	12.8	496	12.4

Source: Finnish Gambling 2019 population study

Both calibrated expansion weights and analysis weights derived from them were formed for the data. The calibrated expansion weights bring the data up to the level of the population. The sum of the expansion weights corresponds to the size of the population aged 15 to 74. In 2019, there were 3,722,323 people aged 15 to 74. The average of the expansion weights, or 932, thus indicates the average number of persons each person in the research data represents. The standard deviation of the expansion weights is 188 and the range [582,1477]. The sum of analysis weights, on the other hand, equals the number of respondents in the survey data. This gives the average of analysis weight of one. In 2019, the standard deviation of the analysis weights was 0.20 and the range [0.62,1.58].

In order to enable cross-sectional comparisons, the research data for 2019 was combined with an SPSS matrix containing the data for 2007, 2011 and 2015. To ensure that previous

research data are consistent with the classifications used in the 2019 study, the variables to be compared were merged and reclassified. The key indicators to be examined were given uniform names.

The statistical analyses were mainly carried out using the SPSS program. Regional analyses and the examination of gambling expenditure accumulation were produced using the R program. To calculate the statistical significance of change over time (p), the Chi-squared test was used to compare years 2007 and 2019, and 2015 and 2019. The comparisons were mainly made at the population level. As an exception to this policy should be mentioned the examination of gambling expenditure and the severity of problem gambling by participation in gambling and game types gambled. Non-monopoly gambling was only examined for this subgroup.

Validity and accuracy of data

The interview form was tested by researchers from Statistics Finland and the Finnish Institute for Health and Welfare. The questionnaire is available in Finnish and Swedish on the website of the [Finnish Gambling study](#). The interviews were conducted by approximately 130 trained interviewers from Statistics Finland. Self-study material, which included instructions for conducting the study, the letters and the form were sent to the interviewers. The interviewers participated in training on data collection and conducted practice interviews in pairs. While the field work was in progress, the interviewers were e-mailed every week with some additional instructions and more detailed operating methods as well as information on the progress of the data collection and answers to questions received from the interviewers.

The interviewers liaised with their immediate supervisors and data collection coordinators to varying degrees. Based on these contacts, it appeared that the most challenging part was finding telephone numbers and reaching respondents. Reaching respondents has become more difficult year by year in all surveys. The interviewers noted that while the media attention received by gambling at the beginning of the data collection period seemed to increase interest in participation, as time went on, it also had the adverse effect. The length of the interview also made attracting respondents challenging.

The 2019 interview data was checked by Statistics Finland and corrections were made to it. The data sets were then reviewed by the Finnish Institute for Health and Welfare. The data includes 14 interviews which, albeit they were interrupted, progressed to quite an advanced point. Interrupted interviews have also been included in the data in previous years.

Availability and transparency/clarity of data

The research data are available and openly accessible for researchers and the scientific community in the Finnish Society Science Data Archive (FSD). Statistics Finland will submit the 2019 data, excluding the register data linked to them, to FSD as soon as all the key results of the study have been published. Personal data are not transferred to non-EU/EEA countries. [The privacy notice for scientific research](#) used in 2019 can be found on the study website.

Comparability of statistics

In order to ensure cross-sectional comparability, an effort was made to ensure that the design and questions of the data collection remain as similar as possible throughout the time series. The surveys of 2015 and 2019 were conducted in cooperation with Statistics Finland, before which the data collection was carried out by Taloustutkimus. The response rate has varied in different years: the highest rate was recorded in the data set for 2015 (62%). In addition, the data for 2007 and 2015 were collected in the spring, whereas the data for 2011 and 2019 were collected in autumn/winter. Any missing data in the original sets have been substituted using slightly different methods, but efforts have been made to harmonise these practices for the purposes of this report.

There was no upper age limit in the sample of 2007. In other years, the target population has been those aged between 15 and 74 living in Mainland Finland (household population). For 2007, only respondents aged between 15 and 74 were included in this statistical report.

The respondents' gambling problems were surveyed using two indicators in order to maximise the cross-sectional and international comparability of the data. Assessment of past-year problem gambling has been included since 2007. SOGS (the South Oaks Gambling Screen; Lesieur & Blume 1987; 1993) has been used as the primary indicator for problem gambling in the study. It contains 20 questions intended to measure gambling behaviour and its negative consequences. In the Finnish Gambling study, SOGS has been used since 2003. In 2003, however, the time span of the measurement was the respondents' entire life, in 2007 their entire life and the past year and, since then, only the past year. The SOGS instrument has been criticized because of the high number of false positive answers (Salonen et al. 2014).

PGSI (the Problem Gambling Severity Index; Ferris & Wynne 2001) uses nine questions to measure problematic gambling. It is the best method for Nordic comparisons, among other things. In the Finnish Gambling study, PGSI has been used since 2011. In addition to the original version (Ferris & Wynne 2001), alternative classification methods have been presented for PGSI scores (Currie et al. 2010, Stone et al. 2015). For this reason, figures that can be used for more than one classification options are presented in this report. The classification accuracy of the PGSI is more strict than with the SOGS, particularly when using 8 as a cut-off point (Salonen et al. 2014).

To examine the prevalence of problematic gambling from the perspective of concerned significant others of problem gamblers, the respondent's personal view was recorded. No time frame was specified for these answers, and the responses are thus more likely to cover the respondents' entire life span. The prevalence rates from the viewpoint of concerned significant others of problem gamblers are thus not comparable with the prevalence of respondents' personal past-year problem gambling (SOGS, PGSI).

The selection and offer of games are constantly changing: new games and game types come into the market. Due to changes in the offer of games, the way in which the prevalence of gambling different game types has been recorded has changed slightly from year to year. To enable cross-sectional comparisons, some game types have been combined in this statistic (Appendix table 6). When examining the number of game types, this list of game types has been utilised, in addition to which private betting and non-monopoly gambling have been included. In other words, this figure does not indicate the number of individual gambling games. As a result of game development, the characteristics of a game type, and thus the potential harms caused by it, may also have changed between 2007 and 2019.

In 2019, the respondents were allowed to report their gambling expenditure based on gambling frequency of their choice. In earlier years, the questions concerning gambling expenditure were worded slightly differently, which is why cross-sectional comparisons of gambling expenditure are not included in this statistical report. The confidence intervals are only presented when examining the accumulation of gambling expenditure. No calibrated expansion weights were available for 2007, which is why the confidence intervals for that year could not be calculated. The data sets for 2015 and 2019 contained an outlier, which was replaced with the second largest value in the same study. Gambling frequency was taken into account when calculating the gambling expenditure for 2015. I

The data sets for 2007 and 2011 have a pre-existing regional data classification, which restricts regional examination. For this reason, using a more detailed or topical classification of regions (such as hospital districts) in the statistics was not possible.

Clarity and integrity/cohesion

The most central questions have been kept more or less the same from one data collection to another. The wordings of the questions have been improved over time. The questions have been updated as indicated by the offer of games and identified challenges, among other things. In addition to permanent sections, the form also includes ad hoc questions based on the current information needs. This is why the total duration of the telephone interviews has varied from year to year.

Appendix tables

Appendix table 1.

Past-year gambling prevalence, respondents aged 15 to 74 between 2007 and 2019 (%)

Appendix table 2.

Gambled daily or several times a week during the past year, respondents aged 15 to 74 between 2007 and 2019 (%)

Appendix table 3.

Gambled once a week during the past year, respondents aged 15 to 74 between 2007 and 2019 (%)

Appendix table 4:

Gambled 1 to 3 times a month during the past year, respondents aged 15 to 74 between 2007 and 2019 (%)

Appendix table 5:

Gambled less often than once a month during the past year, respondents aged 15 to 74 between 2007 and 2019 (%)

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Past-year gambling prevalence by operator(s), respondents aged 15 to 74 between 2007 and 2019 (%)

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Past-year prevalence of problem gambling (SOGS ≥ 3 points), respondents aged 15 to 74 between 2007 and 2019 (%)

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Past-year prevalence of at-risk and problem gambling (SOGS ≥ 1 point), respondents aged 15 to 74 between 2007 and 2019 (%)

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Past-year problem gambling severity (PGSI), respondents aged 15 to 74 between 2011 and 2019 (%)

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Prevalence of problem gambling by past-year gambling participation, gamblers aged 15 to 74 in 2019 (%)

Appendix table 15:

Past-year prevalence of problem gambling among those who gambled different game types, gamblers aged 15 to 74 in 2019 (%)

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Appendix table 17:

Concerned significant others of at least one problem gambler, respondents aged 15 to 74 between 2007 and 2019 (%)

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At least one friend with a gambling problem, respondents aged 15 to 74 between 2007 and 2019 (%)

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Prevalence of concerned significant others of problem gamblers in the age group 15 to 74 and gambler's relationship with respondent in 2007-2019 (%)

Appendix table 21:

Past-year prevalence of gambling, respondents aged 15 to 74 between 2007 and 2019 by region (%)

Appendix table 22:

Gambled at least once a week during the past year, respondents aged 15 to 74 between 2007 and 2019 by region (%)

Appendix table 23:

Gambled at least four different game types during the past year, respondents aged 15 to 74 between 2007 and 2019 by region (%)

Appendix table 24:

Past-year online gambling, respondents aged 15 to 74 between 2007 and 2019 by region (%)

Appendix table 25:

Past-year prevalence of at-risk and problem gambling (SOGS \geq 1 points), respondents aged 15 to 74 between 2007 and 2019 (%)

Appendix table 26:

Concerned significant other of at least one problem gambler, respondents aged 15 to 74 between 2007 and 2019 by region (%)

Appendix figure 1:

Total accumulation of gambling expenditure and 95% confidence intervals for gamblers between 2007 and 2019

Appendix table 1. Past-year gambling prevalence, respondents aged 15 to 74 between 2007 and 2019 (%)

	2007	2011	2015	2019	p 2007 vs. 2019	p 2015 vs. 2019
All	73.2	77.9	80.0	78.4	<.001	.064
Gender						
Women	67.2	72.9	75.1	74.5	<.001	.670
Men	79.4	83.0	85.0	82.2	.020	.017
Age group						
15 to 17	65.8	47.2	37.4	40.9	<.001	.492
18 to 24	69.2	74.9	80.9	72.2	.336	.002
25 to 34	75.7	83.9	83.7	83.6	<.001	.985
35 to 44	78.8	80.8	83.0	84.8	.005	.387
45 to 54	76.6	83.1	83.6	81.7	.018	.358
55 to 64	71.7	79.4	82.9	79.1	.001	.054
65 to 74	67.3	69.2	76.0	76.7	<.001	.727

Source: Finnish Gambling 2019 population study

Appendix table 2. Gambled daily or several times a week during the past year, respondents aged 15 to 74 between 2007 and 2019 (%)

	2007	2011	2015	2019	p 2007 vs. 2019	p 2015 vs. 2019
All	10.9	9.5	8.9	7.0	<.001	.002
Gender						
Women	6.1	4.6	5.2	3.1	<.001	.001
Men	15.6	14.4	12.6	10.9	<.001	.096
Age group						
15 to 17	13.8	8.7	1.1	..	..	..
18 to 24	13.5	8.1	8.2	2.8	<.001	.001
25 to 34	10.1	8.4	6.5	4.5	<.001	.110
35 to 44	11.5	8.7	6.5	7.5	.016	.475
45 to 54	12.1	11.5	8.1	7.5	.004	.659
55 to 64	9.5	10.9	12.4	9.0	.728	.029
65 to 74	8.2	8.5	12.6	9.7	.338	.083

Source: Finnish Gambling 2019 population study

Appendix table 3. Gambled once a week during the past year, respondents aged 15 to 74 between 2007 and 2019 (%)

	2007	2011	2015	2019	^p 2007 vs. 2019	^p 2015 vs. 2019
All	29.7	26.1	25.1	22.2	<.001	.001
Gender						
Women	25.1	20.7	20.7	17.2	<.001	.004
Men	34.4	31.6	29.5	27.1	<.001	.077
Age group						
15 to 17	16.8	10.6	3.8	..	..	..
18 to 24	20.5	13.7	14.2	9.6	<.001	.037
25 to 34	24.5	19.5	18.0	11.4	<.001	.001
35 to 44	27.5	23.5	22.6	19.4	.001	.160
45 to 54	35.5	31.6	28.1	25.2	<.001	.209
55 to 64	35.1	33.7	34.5	30.1	.042	.064
65 to 74	36.1	35.2	33.0	34.5	.554	.555

Source: Finnish Gambling 2019 population study

Appendix table 4. Gambled 1 to 3 times a month during the past year, respondents aged 15 to 74 between 2007 and 2019 (%)

	2007	2011	2015	2019	^p 2007 vs. 2019	^p 2015 vs. 2019
All	58.7	56.4	56.6	47.3	<.001	<.001
Gender						
Women	48.6	44.4	44.4	36.9	<.001	<.001
Men	68.9	68.3	68.9	57.7	<.001	<.001
Age group						
15 to 17	51.5	27.3	17.6	7.4	<.001	.004
18 to 24	55.6	50.5	52.1	32.7	<.001	<.001
25 to 34	58.1	55.6	54.1	37.9	<.001	<.001
35 to 44	61.5	55.7	54.5	48.6	<.001	.033
45 to 54	62.6	61.7	60.3	54.2	.002	.019
55 to 64	57.7	63.2	64.2	55.5	.386	<.001
65 to 74	57.6	54.6	61.2	57.5	<.951	.147

Source: Finnish Gambling 2019 population study

Appendix table 5. Gambled less often than once a month during the past year, respondents aged 15 to 74 between 2007 and 2019 (%)

	2007	2011	2015	2019	p 2007 vs. 2019	p 2015 vs. 2019
All	14.4	21.5	23.3	31.1	<.001	<.001
Gender						
Women	18.5	28.5	30.7	37.6	<.001	<.001
Men	10.2	14.5	16.0	24.5	<.001	<.001
Age group						
15 to 17	13.8	19.9	19.8	33.5	<.001	.003
18 to 24	13.7	24.4	28.8	39.6	<.001	.001
25 to 34	17.7	28.3	29.6	45.7	<.001	<.001
35 to 44	17.1	24.8	28.4	36.1	<.001	.003
45 to 54	13.7	21.4	23.3	27.7	<.001	.054
55 to 64	13.8	16.1	18.7	23.8	<.001	.012
65 to 74	9.4	14.5	14.8	19.3	<.001	.023

Source: Finnish Gambling 2019 population study

Appendix table 6. Gambled the following games offered under the monopoly system during the past year, respondents aged 15 to 74 between 2007 and 2019 (%)

	2007	2011	2015	2019	p 2007 vs. 2019	p 2015 vs. 2019
Weekly lottery games and/or Jokeri	63.4	68.2	69.1	63.6	.881	<.001
Daily lottery games	16.7	17.7	23.8	22.7	<.001	.228
Scratch cards	35.3	34.3	42.9	47.2	<.001	<.001
Sports betting/Football pools or multibet	20.5	13.1	14.9	13.4	<.001	.058
Gambling games at Helsinki Casino	2.5	2.4	1.5	1.7	<.007	.473
Slot machines games outside casinos	36.3	33.0	29.8	30.6	<.001	.434
Casino games operated by a croupier outside the casino (roulette, black jack)	8.5	6.1	6.4	3.4	<.001	<.001
Horse games	7.4	5.5	5.3	4.8	<.001	.244
Online poker at the online casino	..	2.0	1.2	1.1	..	.482

Source: Finnish Gambling 2019 population study

Appendix table 7. Past-year gambling prevalence by operator, respondents aged 15 to 74 between 2007 and 2019 (%)

	2007	2011	2015	2019	p 2007 vs. 2019	p 2015 vs. 2019
At least one gambling game offered in the exclusive rights system	73.2	77.6	79.4	77.9	<.001	.080
Private betting and/or card games with money as stakes	8.2	6.1	4.5	4.2	<.001	.553
At least one game available outside the exclusive rights system (incl. PAF or other operators, excludes private gambling or PAF games on ships)	4.4	4.1	5.1	6.2	<.001	.032
• At least one PAF game	2.3	2.5	2.8	1.8	.162	.003
• At least one game offered by a foreign operator	2.9	2.4	3.3	5.4	<.001	<.001
PAF games on ships	..	..	11.0	11.0	..	.964

Source: Finnish Gambling 2019 population study

Appendix table 8. Gambled at least four different game types during the past year, respondents aged 15 to 74 between 2007 and 2019 (%)

	2007	2011	2015	2019	p 2007 vs. 2019	p 2015 vs. 2019
All	18.9	16.0	21.6	20.7	.039	.329
Gender						
Women	10.1	7.9	12.6	12.7	.010	.975
Men	27.7	24.1	30.5	28.7	.510	.196
Age group						
15 to 17	12.8	7.5	7.1	4.5	.005	.296
18 to 24	29.4	22.2	31.7	25.3	.174	.033
25 to 34	29.5	25.5	35.4	33.8	.097	.536
35 to 44	19.8	16.4	27.0	27.4	.001	.860
45 to 54	17.3	16.8	17.9	22.4	.019	.034
55 to 64	12.4	9.9	16.8	14.3	.277	.164
65 to 74	9.9	8.2	8.4	9.7	.888	.397

Source: Finnish Gambling 2019 population study

Appendix table 9. Past-year prevalence of online gambling, respondents aged 15 to 74 between 2007 and 2019 (%)

	2007	2011	2015	2019	^p 2007 vs. 2019	^p 2015 vs. 2019
All	9.2	19.5	23.6	36.3	<.001	<.001
Gender						
Women	5.9	13.4	17.1	27.2	<.001	<.001
Men	12.4	25.6	30.1	46.0	<.001	<.001
Age group						
15 to 17	3.1	5.0	4.4	4.0	.631	.843
18 to 24	12.6	20.8	25.0	37.5	<.001	<.001
25 to 34	16.1	32.4	37.5	46.8	<.001	<.001
35 to 44	11.2	25.7	32.0	49.7	<.001	<.001
45 to 54	10.5	22.2	25.0	42.7	<.001	<.001
55 to 64	4.9	12.1	18.5	34.1	<.001	<.001
65 to 74	2.5	5.4	10.1	20.5	<.001	<.001

Source: Finnish Gambling 2019 population study

Appendix table 10. Past-year problem gambling (SOGS ≥ 3 points), respondents aged 15 to 74 between 2007 and 2019 (%)

	2007	2011	2015	2019	^p 2007 vs. 2019	^p 2015 vs. 2019
All	3.2	2.7	3.3	3.0	.600	.443
Gender						
Women	1.7	1.2	2.4	2.1	.432	.461
Men	4.8	4.3	4.3	4.0	.238	.674
Age group						
15 to 17	10.7	3.7	..	..	..	..
18 to 24	5.4	3.8	6.0	5.3	.933	.646
25 to 34	4.3	4.1	3.7	4.8	.604	.319
35 to 44	3.4	2.0	3.5	2.7	.483	.430
45 to 54	2.1	2.7	2.2	2.4	.765	.877
55 to 64	0.8	2.1	3.5	2.3	.016	.152
65 to 74	2.3	1.4	2.2	2.3	.984	.882

Source: Finnish Gambling 2019 population study

Appendix table 11. Past-year prevalence of at-risk and problem gambling (SOGS \geq 1 point), respondents aged 15 to 74 between 2007 and 2019 (%)

	2007	2011	2015	2019	2007 vs. 2019 ^p	2015 vs. 2019 ^p
All	18.6	16.1	18.3	13.7	<.001	<.001
Gender						
Women	12.2	10.3	14.1	10.3	,056	<.001
Men	25.1	21.8	22.6	17.1	<.001	<.001
Age group						
15 to 17	32.7	17.4	12.1	3.4	<.001	,002
18 to 24	32.8	26.5	30.9	20.5	<.001	<.001
25 to 34	22.8	20.9	24.0	21.8	,645	,323
35 to 44	18.2	12.8	16.0	12.7	,005	,083
45 to 54	15.9	14.5	15.9	11.9	,030	,029
55 to 64	12.0	13.1	17.1	10.9	,508	<.001
65 to 74	10.3	9.9	11.5	10.8	,768	,684

Source: Finnish Gambling 2019 population study

Appendix table 12. Past-year prevalence of gambling without identified problems (SOGS = 0 points), respondents aged 15 to 74 between 2007 and 2019 (%)

	2007	2011	2015	2019	2007 vs. 2019 ^p	2015 vs. 2019 ^p
All	54.8	61.9	61.7	64.7	<.001	.004
Gender						
Women	55.1	62.6	61.1	64.3	<.001	.032
Men	54.6	61.1	62.3	65.1	<.001	.057
Age group						
15 to 17	33.2	29.6	25.3	37.5	.382	.013
18 to 24	36.8	48.4	50.0	48.2	<.001	.597
25 to 34	53.0	62.9	59.6	61.8	.001	.403
35 to 44	60.9	68.0	66.9	72.1	<.001	.039
45 to 54	60.9	68.6	67.8	70.0	<.001	.379
55 to 64	59.8	66.3	65.9	68.4	<.001	.286
65 to 74	57.2	59.2	65.5	65.9	.001	.566

Source: Finnish Gambling 2019 population study

Appendix table 13. Past-year problem gambling severity (PGSI), respondents aged 15 to 74 between 2011 and 2019 (%)

	2007	2011	2015	2019
PGSI \geq 8 points	..	0.6	0.5	0.7
PGSI = 5 to 7 points	..	0.6	1.0	0.9
PGSI = 3 to 4 points	..	1.8	1.8	1.5
PGSI = 1 to 2 points	..	9.6	8.7	6.7
PGSI = 0 points	..	65.3	68.1	68.5
Does not gamble	..	22.1	20.0	21.8

Source: Finnish Gambling 2019 population study

Appendix table 14. Prevalence of problem gambling by participation in gambling, gamblers aged 15 to 74 in 2019

	Proportion of those who gambled at least once a week (%)	Number of game types gambled, average	SOGS \geq 1 point	SOGS \geq 3 points
Past-year gambling	37.2	2.7	17.5	3.9
Gambling frequency				
Daily or several times a week	-	4.1	39.9	16.4
Once a week	-	2.8	18.6	3.6
1 to 3 times a month	-	3.0	18.1	2.8
Less frequently	-	2.0	11.1	1.9
Number of game types gambled				
5 or more game types	61.4	-	43.4	13.6
4 game types	42.8	-	27.0	5.8
3 game types	40.0	-	16.0	2.2
2 game types	34.7	-	10.5	1.7
1 game type	24.5	-	8.9	1.8
Gambling mode				
Only land-based	30.0	2.1	12.7	2.3
Only online	46.0	2.4	15.4	3.4
Online and land-based	45.3	3.9	27.7	7.1
Customer relationship with Veikkaus				
Bonus customer	40.3	2.9	20.4	4.4
Silver tier customer	71.0	3.8	25.0	6.0
Gold tier customer	82.7	4.2	28.0	7.3
Cannot/does not want to say	41.9	3.0	15.5	4.3
Not known	23.6	1.9	11.8	2.3
Number of gaming accounts with operators outside the exclusive rights system				
1 gaming account with outside operators	44.1	4.4	37.0	16.1
2 gaming accounts with outside operators	56.7	5.3	63.6	25.0
\geq 3 gaming accounts with outside operators	61.8	5.4	52.6	25.0
0 gaming accounts with outside operators/not known	33.3	4.2	42.9	19.0
Only gambled Veikkaus games	35.9	2.5	14.8	2.4

Source: Finnish Gambling 2019 population study

Appendix table 15. Past-year prevalence of problem gambling among those who gambled different game types, gamblers aged 15 to 74 in 2019 (%)

	Proportion of those who gambled at least once a week (%)	Number of game types gambled, average	SOGS \geq 1 point (%)	SOGS \geq 3 points (%)
All gamblers	37.2	2.7	17.4	3.9
Weekly lottery games and/or Jokeri	43.7	2.9	17.6	3.8
Daily lottery games ¹	54.3	4.0	26.0	6.3
Scratch cards	34.9	3.2	19.2	4.5
• Veikkaus scratch cards	33.8	3.1	18.4	4.3
• Veikkaus online draws	48.9	4.3	32.1	8.5
Sports betting/Football pools or multibet	55.9	4.6	31.1	8.0
Gambling games at Helsinki Casino	45.5	5.6	40.9	19.4
Slot machines outside casinos	43.7	3.9	29.4	7.5
• At gambling outlets	44.1	3.9	29.2	7.6
• In arcades	61.7	4.5	53.6	19.1
• On Veikkaus website	53.7	4.6	44.2	14.4
Casino games operated by a croupier outside the casino (roulette, black jack)	47.7	5.6	48.9	14.8
Betting on horses	55.5	4.6	34.0	8.9
Online poker at the online casino	57.1	6.5	44.2	14.0

Source: Finnish Gambling 2019 population study

Appendix table 16. Past-year prevalence of problem gambling among those who gambled non-monopoly games, gamblers aged 15 to 74 in 2019 (%)

	Proportion of those who gambled at least once a week (%)	Number of game types gambled, average	SOGS \geq 1 point	SOGS \geq 3 points
All gamblers	37.2	2.7	17.4	3.9
Only gambled Veikkaus games	36.2	2.5	14.9	2.4
Private betting and/or card games with money as stakes	37.5	4.6	28.4	7.1
Games available outside the exclusive rights system (incl. PAF or other operators, excludes private gambling)	50.2	4.8	45.0	19.5
• PAF games online	71.2	5.1	55.4	30.1
• At least one game offered by a foreign operator online	51.4	4.9	50.7	21.4
PAF games on ships	36.0	4.4	29.5	6.8

Source: Finnish Gambling 2019 population study

Appendix table 17. Concerned significant other of at least one problem gambler, respondents aged 15 to 74 between 2007 and 2019 (%)

	2007	2011	2015	2019	p 2007 vs. 2019	p 2015 vs. 2019
All	19.0	19.3	19.3	21.1	.028	.011
Gender						
Women	17.0	18.7	19.3	20.6	.004	.296
Men	20.9	19.9	19.3	21.8	.497	.042
Age group						
15 to 17	18.4	17.3	9.3	9.7	.016	.918
18 to 24	26.1	20.4	23.3	27.9	.633	.144
25 to 34	22.7	21.0	25.3	29.1	.009	.111
35 to 44	20.8	20.9	22.0	23.9	.176	.406
45 to 54	16.2	19.6	18.1	20.8	.030	.203
55 to 64	16.1	18.7	17.8	19.2	.106	.451
65 to 74	14.2	14.7	13.4	13.7	.785	.875

Source: Finnish Gambling 2019 population study

Appendix table 18. At least one friend with a gambling problem, respondents aged 15 to 74 between 2007 and 2019 (%)

	2007	2011	2015	2019	p 2007 vs. 2019	p 2015 vs. 2019
All	13.4	12.4	12.6	13.7	.652	.153
Gender						
Women	9.9	10.3	10.3	11.2	.175	.334
Men	16.9	14.4	15.0	16.2	.547	.291
Age group						
15 to 17	15.3	12.4	6.6	6.8	.010	.932
18 to 24	18.5	14.1	17.9	20.5	.464	.321
25 to 34	16.8	14.4	17.2	19.3	.239	.302
35 to 44	16.3	15.5	14.2	16.1	.916	.346
45 to 54	10.9	11.1	11.3	11.6	.655	.843
55 to 64	10.4	10.9	11.0	11.4	.532	.791
65 to 74	8.2	8.2	7.7	8.8	.709	.479

Source: Finnish Gambling 2019 population study

Appendix 19. At least one family member with a gambling problem, respondents aged 15 to 74 between 2007 and 2019 (%)

	2007	2011	2015	2019	^p 2007 vs. 2019	^p 2015 vs. 2019
All	6.7	8.6	9.3	10.0	<.001	.317
Gender						
Women	8.2	10.3	11.7	11.9	<.001	.812
Men	5.1	6.8	7.0	8.0	<.001	.199
Age group						
15 to 17	4.6	6.8	3.8	4.0	.771	.949
18 to 24	9.6	8.1	9.1	11.9	.275	.173
25 to 34	7.2	8.5	11.5	13.8	<.001	.216
35 to 44	5.9	7.2	11.4	9.8	.009	.335
45 to 54	6.4	10.1	9.2	10.5	.006	.423
55 to 64	6.2	9.6	9.0	10.6	.002	.271
65 to 74	6.6	7.4	7.2	6.0	.690	.372

Source: Finnish Gambling 2019 population study

Appendix table 20. Prevalence of concerned significant others of problem gamblers in the age group 15 to 74 and gambler's relationship with respondent in 2007-2019 (%)

	2007	2011	2015	2019	^p 2007 vs. 2019	^p 2015 vs. 2019
At least one family member	6.7	8.6	9.3	10.0	<.001	.317
• Father	1.4	2.0	2.2	2.5	<.001	.385
• Mother	0.5	0.8	1.2	0.9	.053	.176
• Brother or sister	2.0	2.7	2.9	3.2	.001	.414
• Grandparent/s	0.7	1.0	1.5	1.3	.021	.405
• Spouse	1.4	1.7	1.8	2.1	.013	.339
• Child/ren	1.2	1.6	1.7	1.5	.256	.506

Source: Finnish Gambling 2019 population study

Appendix table 21. Past-year prevalence of gambling, respondents aged 15 to 74 between 2007 and 2019 by region (%)

	2007	2011	2015	2019	2007 vs. 2019 ^p	2015 vs. 2019 ^p
All	73.2	77.9	80.0	78.4	<.001	.064
Region						
Uusimaa	71.7	80.4	78.3	75.9	.024	.162
Southwest Finland/Satakunta	72.5	76.7	81.3	75.8	.224	.026
Päijät-Häme/Kanta-Häme	78.6	79.3	80.8	83.3	.150	.426
Pirkanmaa	71.2	78.4	78.4	79.6	.006	.667
Central Finland	75.5	73.2	78.6	75.0	.908	.366
Kymenlaakso/South Karelia	72.8	77.4	89.9	85.5	.001	.136
South and North Savo/Northern Karelia	76.7	77.9	77.8	80.6	.196	.308
Ostrobothnia, Central Ostrobothnia, South Ostrobothnia	71.8	75.5	82.5	78.1	.073	.142
North Ostrobothnia/Kainuu/Lapland	72.7	77.4	79.7	79.8	.008	.960

Source: Finnish Gambling 2019 population study

Appendix table 22. Gambled at least once a week during the past year, respondents aged 15 to 74 between 2007 and 2019 by region (%)

	2007	2011	2015	2019	2007 vs. 2019 ^p	2015 vs. 2019 ^p
All	40.6	35.6	34.0	29.2	<.001	<.001
Region						
Uusimaa	36.5	32.4	29.1	22.8	<.001	<.001
Southwest Finland/Satakunta	45.4	35.7	33.2	25.6	<.001	.006
Päijät-Häme/Kanta-Häme	47.6	41.3	38.6	35.1	.003	.390
Pirkanmaa	38.5	34.4	29.4	30.3	.016	.780
Central Finland	47.1	34.6	32.5	30.8	.001	.700
Kymenlaakso/South Karelia	45.6	38.7	45.2	41.8	.402	.461
South and North Savo/Northern Karelia	41.7	39.9	37.6	36.0	.082	.607
Ostrobothnia, Central Ostrobothnia, South Ostrobothnia	36.6	33.1	33.5	29.1	.047	.210
North Ostrobothnia/Kainuu/Lapland	38.0	36.8	39.3	31.5	.030	.008

Source: Finnish Gambling 2019 population study

Appendix table 23. Gambled at least four different game types during the past year, respondents aged 15 to 74 between 2007 and 2019 by region (%)

	2007	2011	2015	2019	2007 vs. 2019 ^p	2015 vs. 2019 ^p
All	18.9	16.0	21.6	20.7	.039	.329
Region						
Uusimaa	20.0	15.6	20.4	20.6	.714	.896
Southwest Finland/Satakunta	17.9	14.3	21.8	21.7	.122	.967
Päijät-Häme/Kanta-Häme	23.9	23.1	19.8	19.6	.201	.940
Pirkanmaa	17.9	16.5	23.1	19.4	.585	.201
Central Finland	18.1	14.2	22.1	23.6	.176	.720
Kymenlaakso/South Karelia	19.2	16.1	22.1	24.1	.188	.605
South and North Savo/Northern Karelia	16.3	16.2	23.4	21.6	.047	.506
Ostrobothnia, Central Ostrobothnia, South Ostrobothnia	15.8	11.3	18.9	16.3	.858	.383
North Ostrobothnia/Kainuu/Lapland	19.5	17.7	23.5	21.0	.559	.326

Source: Finnish Gambling 2019 population study

Appendix table 24. Past-year online gambling, respondents aged 15 to 74 between 2007 and 2019 by region (%)

	2007	2011	2015	2019	2007 vs. 2019 ^p	2015 vs. 2019 ^p
All	13.1	21.0	23.6	36.6	<.001	<.001
Region						
Uusimaa	17.5	20.4	23.6	37.2	<.001	<.001
Southwest Finland/Satakunta	12.3	19.5	21.5	34.0	<.001	<.001
Päijät-Häme/Kanta-Häme	9.4	22.8	24.1	36.6	<.001	.001
Pirkanmaa	11.5	19.9	21.2	34.4	<.001	<.001
Central Finland	15.2	19.6	23.8	38.9	<.001	.001
Kymenlaakso/South Karelia	12.0	27.4	21.7	39.5	<.001	<.001
South and North Savo/Northern Karelia	8.2	19.7	24.5	37.5	<.001	<.001
Ostrobothnia, Central Ostrobothnia, South Ostrobothnia	10.1	16.7	20.7	30.1	<.001	.005
North Ostrobothnia/Kainuu/Lapland	14.3	25.3	29.2	40.5	<.001	<.001

Source: Finnish Gambling 2019 population study

Appendix table 25. Past-year prevalence of at-risk and problem gambling (SOGS \geq 1 points), respondents aged 15 to 74 between 2007 and 2019 (%)

	2007	2011	2015	2019	2007 vs. 2019 ^p	2015 vs. 2019 ^p
All	18.6	16.1	18.3	13.7	<.001	<.001
Region						
Uusimaa	19.4	15.9	18.4	11.1	<.001	<.001
Southwest Finland/Satakunta	16.4	15.1	18.7	14.3	.339	.048
Päijät-Häme/Kanta-Häme	21.4	20.4	16.0	12.3	.004	.202
Pirkanmaa	18.6	13.7	15.1	18.4	.935	.203
Central Finland	17.2	16.6	20.9	16.8	.929	.271
Kymenlaakso/South Karelia	21.7	12.5	20.2	16.8	.161	.338
South and North Savo/Northern Karelia	21.9	17.4	17.4	12.7	<.001	.050
Ostrobothnia, Central Ostrobothnia, South Ostrobothnia	12.4	13.8	20.2	13.5	.694	.019
North Ostrobothnia/Kainuu/Lapland	17.1	18.0	19.2	14.7	.304	.052

Source: Finnish Gambling 2019 population study

Appendix table 26. Concerned significant other of at least one problem gambler, respondents aged 15 to 74 between 2007 and 2019 by region (%)

	2007	2011	2015	2019	2007 vs. 2019 ^p	2015 vs. 2019 ^p
All	19.0	19.3	19.3	21.1	.028	.011
Region						
Uusimaa	20.4	21.7	18.8	22.2	.164	.037
Southwest Finland/Satakunta	17.1	15.3	17.5	24.2	.002	.006
Päijät-Häme/Kanta-Häme	21.4	18.8	24.1	18.5	.274	.094
Pirkanmaa	17.9	19.3	19.7	25.1	.064	.064
Central Finland	17.2	20.9	18.8	15.4	.476	.342
Kymenlaakso/South Karelia	20.3	16.1	20.9	16.8	.409	.254
South and North Savo/Northern Karelia	19.7	20.4	17.4	21.1	.530	.162
Ostrobothnia, Central Ostrobothnia, South Ostrobothnia	19.5	18.4	19.7	19.4	.976	.938
North Ostrobothnia/Kainuu/Lapland	16.1	18.4	20.0	20.0	.341	.998

Source: Finnish Gambling 2019 population study

Appendix figure 1: Total accumulation of gambling expenditure and 95% confidence intervals for gamblers between 2007 and 2019

