



# **Gambling and Problem Gambling in Germany: Results of a Mixed-Mode Population Survey in 2023**

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# Competing Interests and Funding

## Declaration of competing interests:

- **Gerhard Meyer has not received any financial support for research projects in the last five years apart from the project funding for the Gambling Surveys 2021 and 2023.**

## Funding:

- **The research project “Gambling Survey 2023” was funded by “Deutscher Lotto- und Totoblock”. The exploitation rights are held by the participating scientific institutes.**



# Background

- **Study two years after the legalization of online gambling.**
- **Such representative population surveys have recently become increasingly problematic, not only in the gambling sector.**
- **Trend of decreasing willingness to participate in telephone surveys or steadily decreasing response rates.**
- **Decreasing accessibility of specific population groups, such as young, technophile people.**
- **Steadily decreasing response rates lead to an increase in selection bias.**
- **In recent years, studies with participating internet users in online-based surveys have gained considerable prominence.**
- **Importance of mixed-mode surveys has steadily increased in recent years.**
- **Approach has already been practiced in election research.**
- **Presentation will focus on both the prevalence rates determined and aspects of the method.**

# Method



**Type of data collection: mixed-mode design:**

- **Computer-assisted telephone interviews: landline and cell phone**
- **Online survey of participants from various online access panels.**

**Basic population and survey period:**

- **German-speaking population between the ages of 16 and 70 from August 1 to October 16, 2023.**

**Sample sizes:**

- **Total: N=12,308**
- **Telephone: N=8,209; Online: N=4,099.**

**Weighting:**

- **By sociodemographic characteristics (age, gender, high school diploma, and state),**
- **Telephone: 66.7%; online: 33.3%.**

**Screening:**

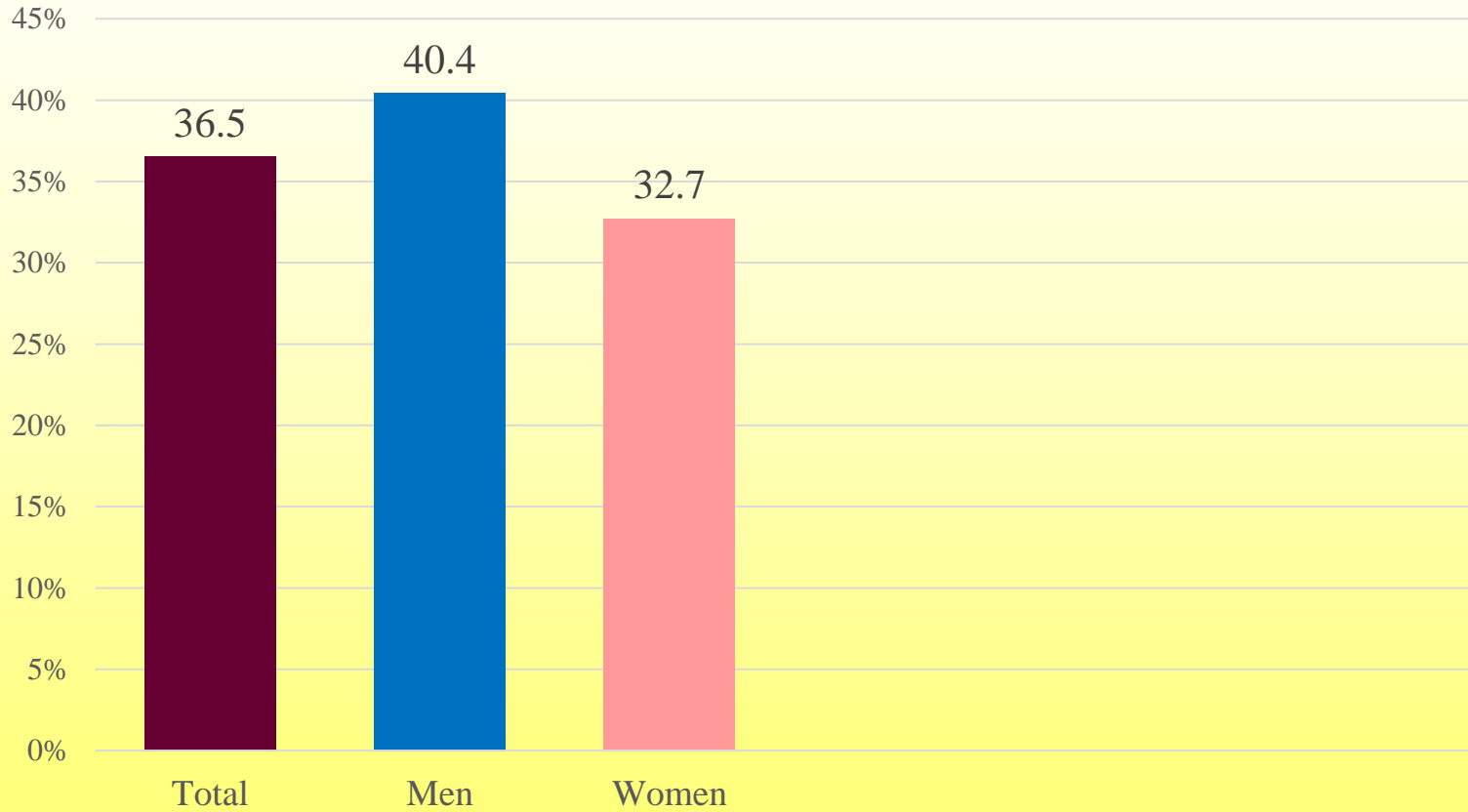
- **Screening of gambling-related problems in the adult population (18-70 years) is based on the current criteria of DSM-5 (risky gambling: 1-3 criteria; mild disorder; 4-5 criteria; moderate: 6-7; severe: 8-9 criteria).**

**Assessment of representativeness:**

- **Question about political party preference**

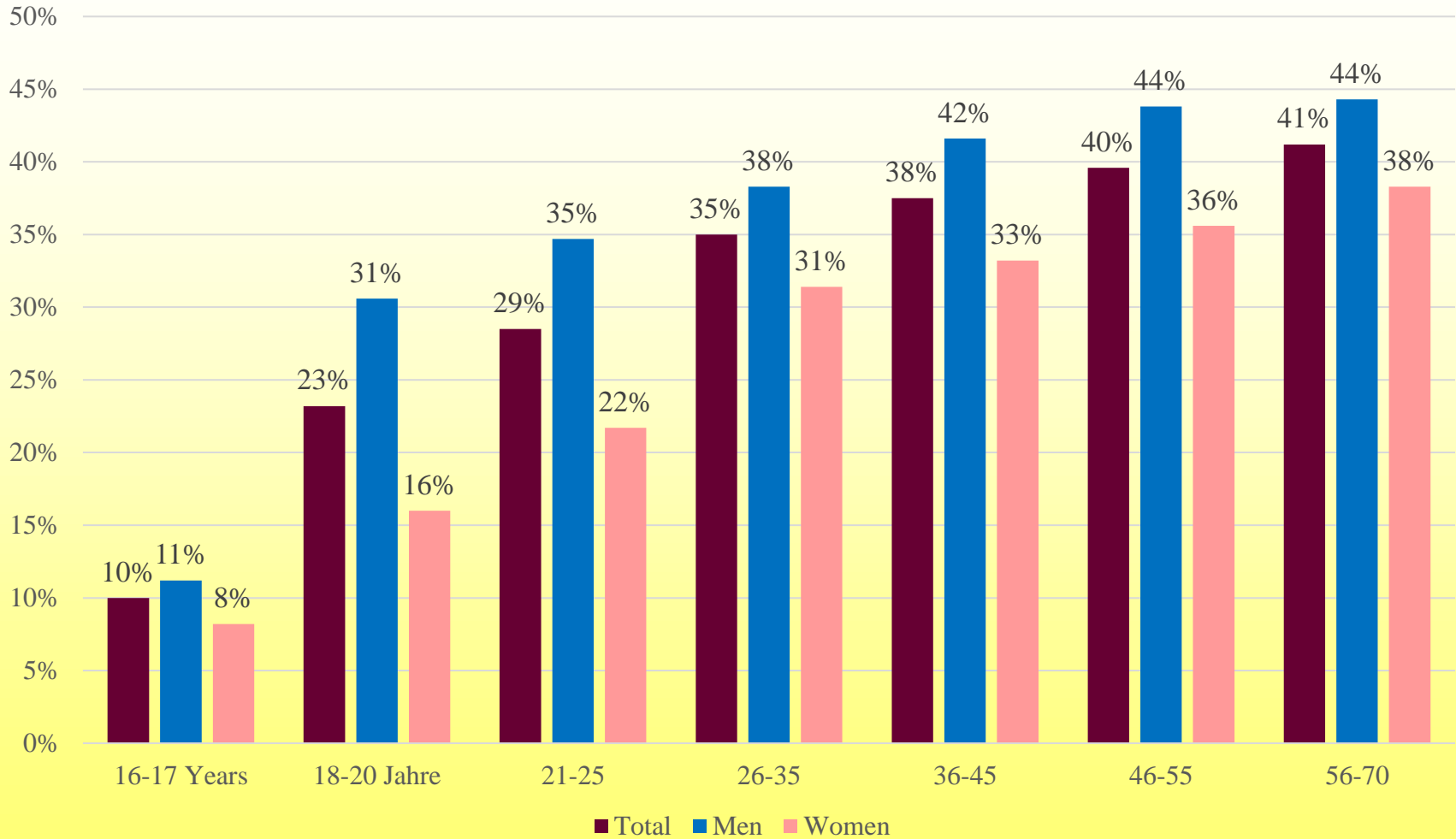


# Results: 12-Months Prevalence of Gambling by Gender (N=12.308)



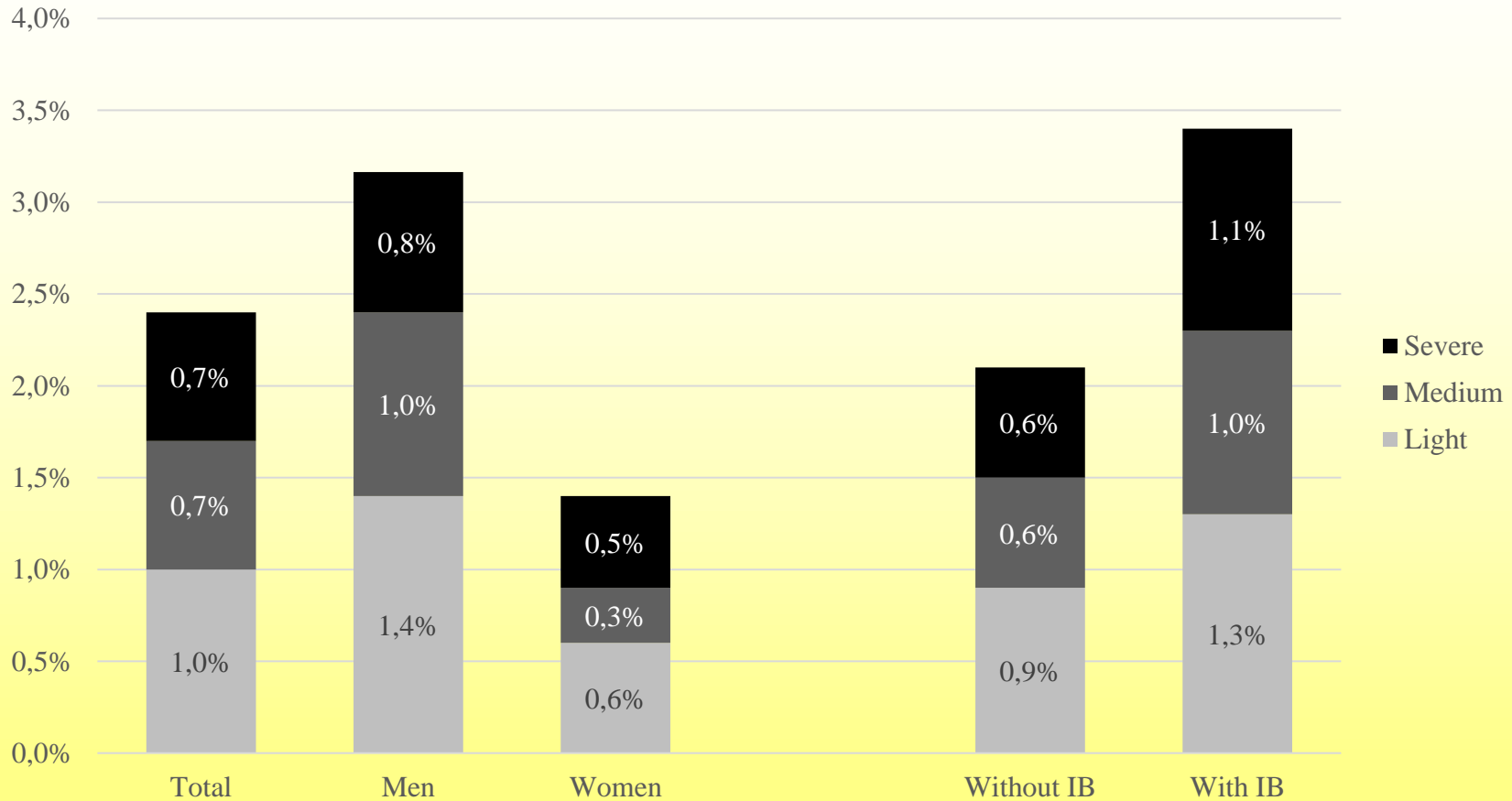


# Results: 12-Months Prevalence of Gambling by Age





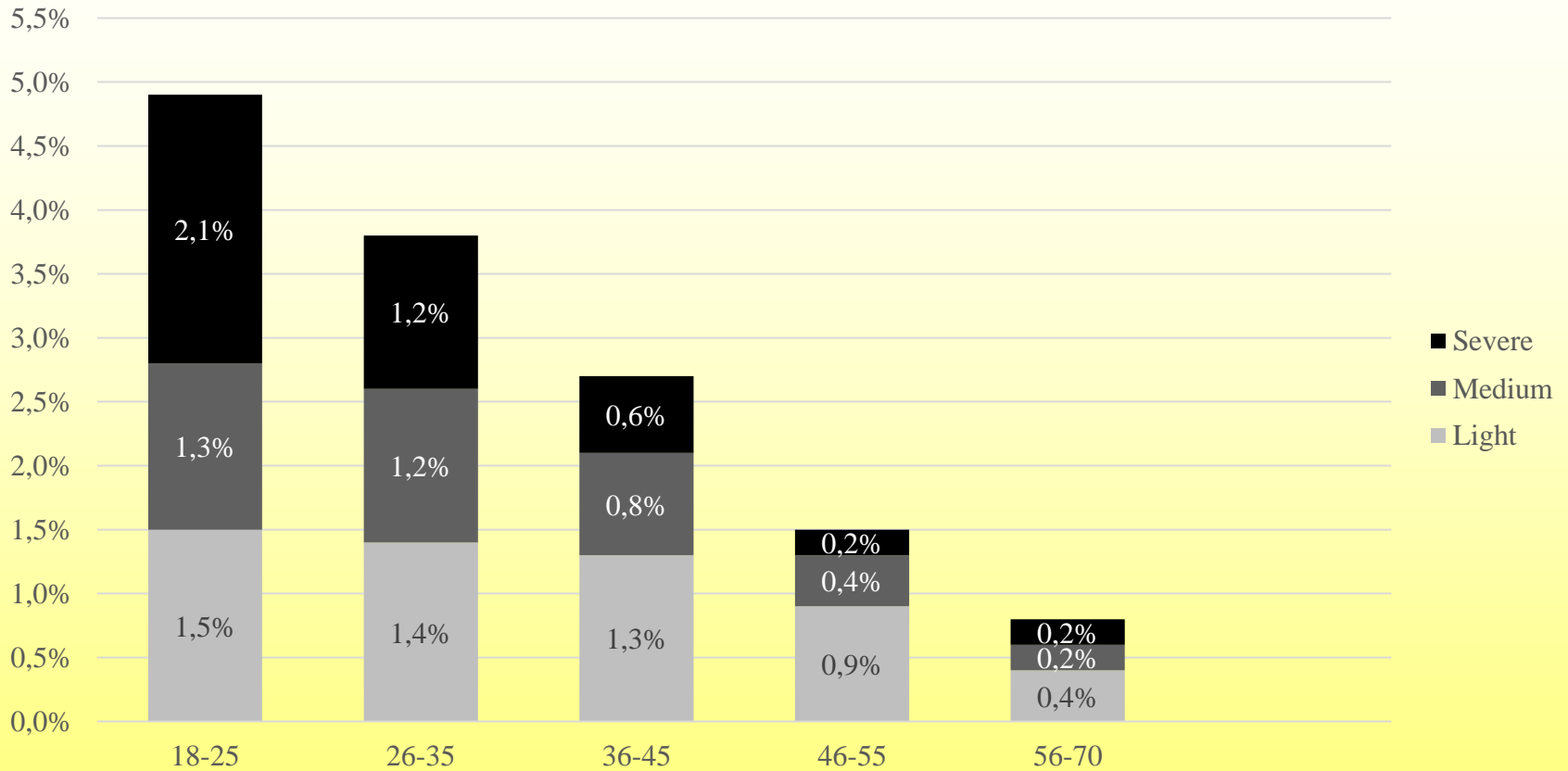
# Results: Severity of Gambling Disorder (DSM-5) by Gender and Immigration Background



**Risky gambling behavior : 1-3 criteria of DSM-5: 6.1%**



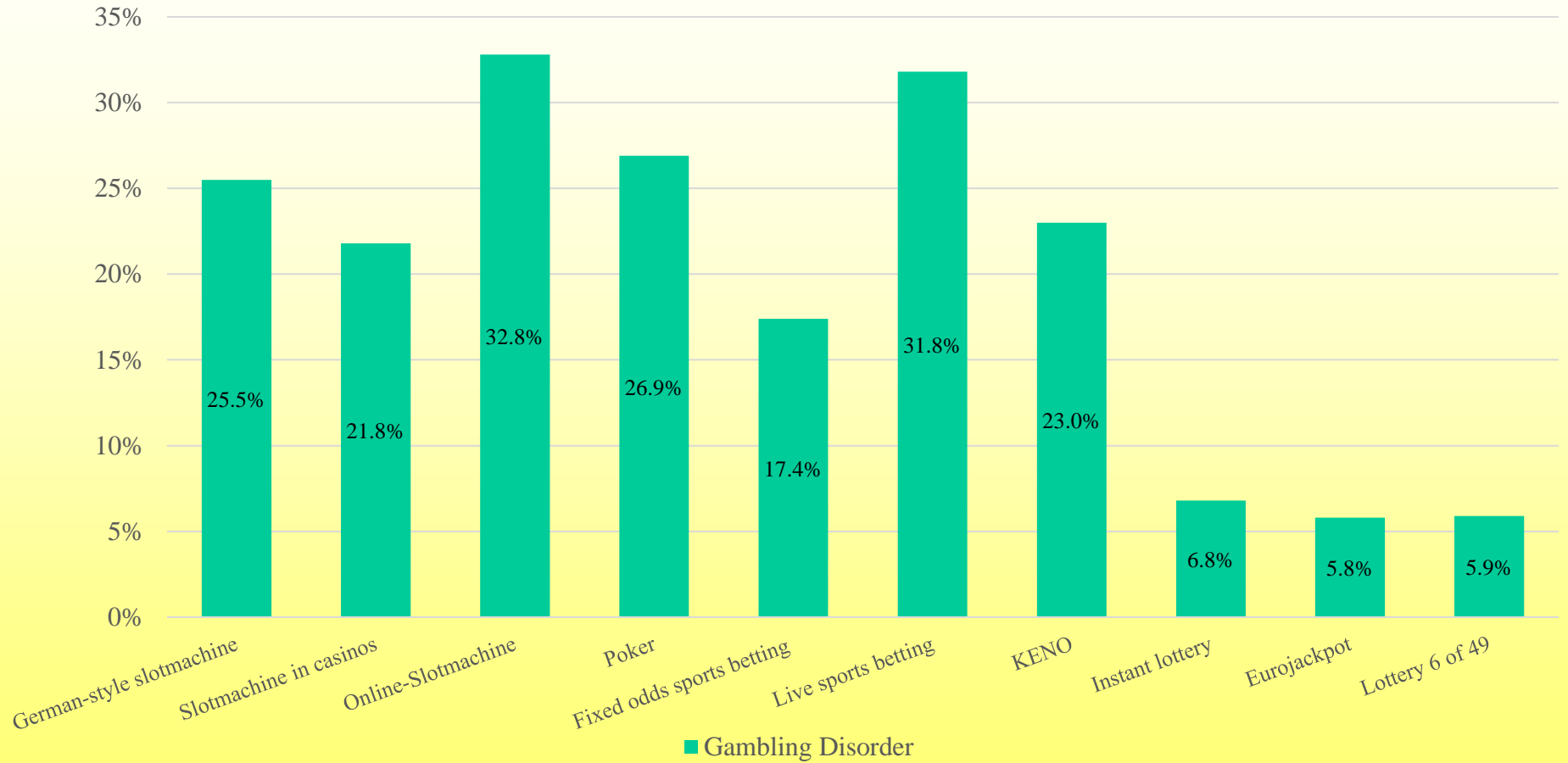
# Results: Severity of Gambling Disorder (DSM-5) by Age





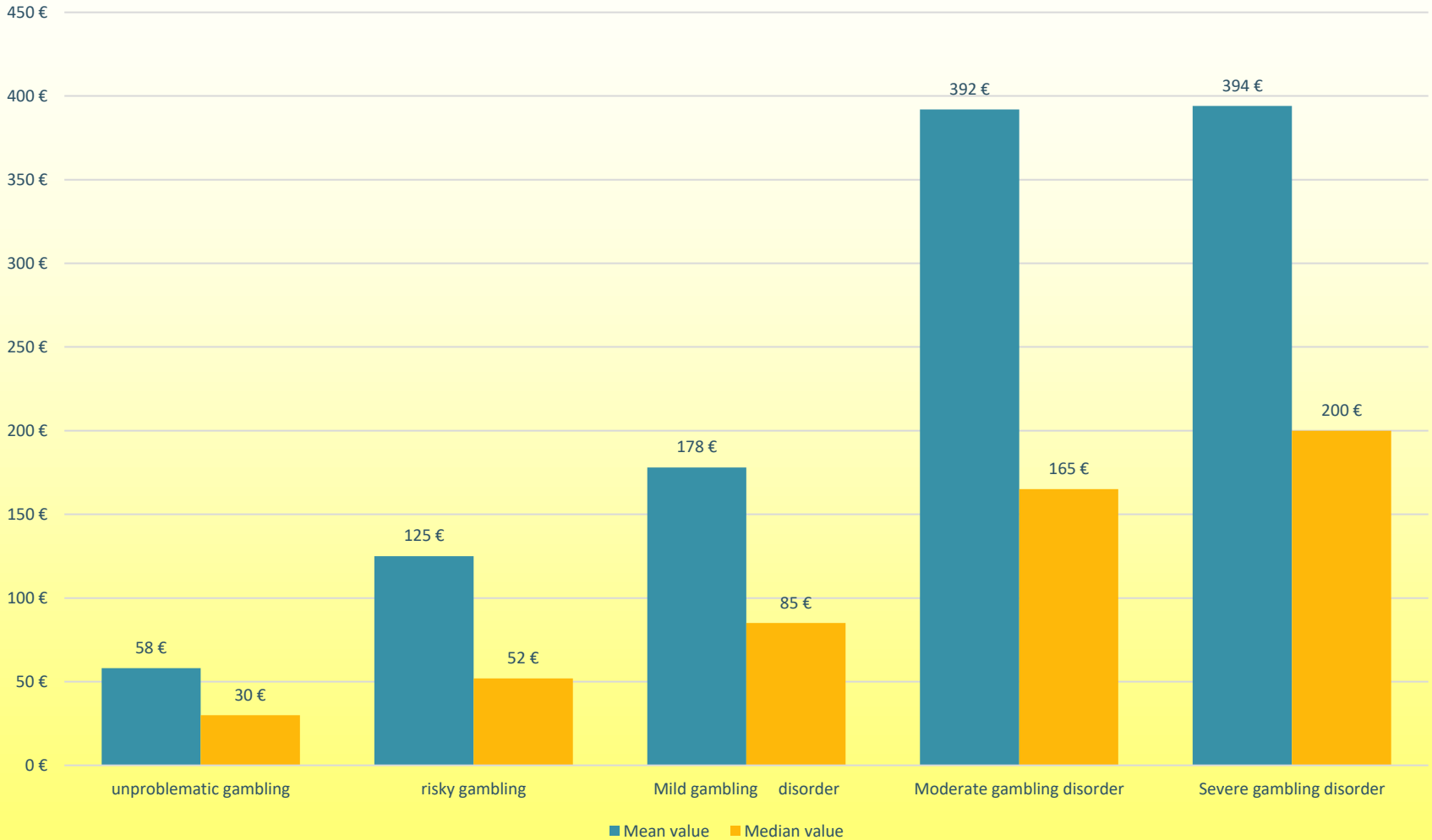


# Results: Gambling Disorder (DSM-5) by Forms of Gambling

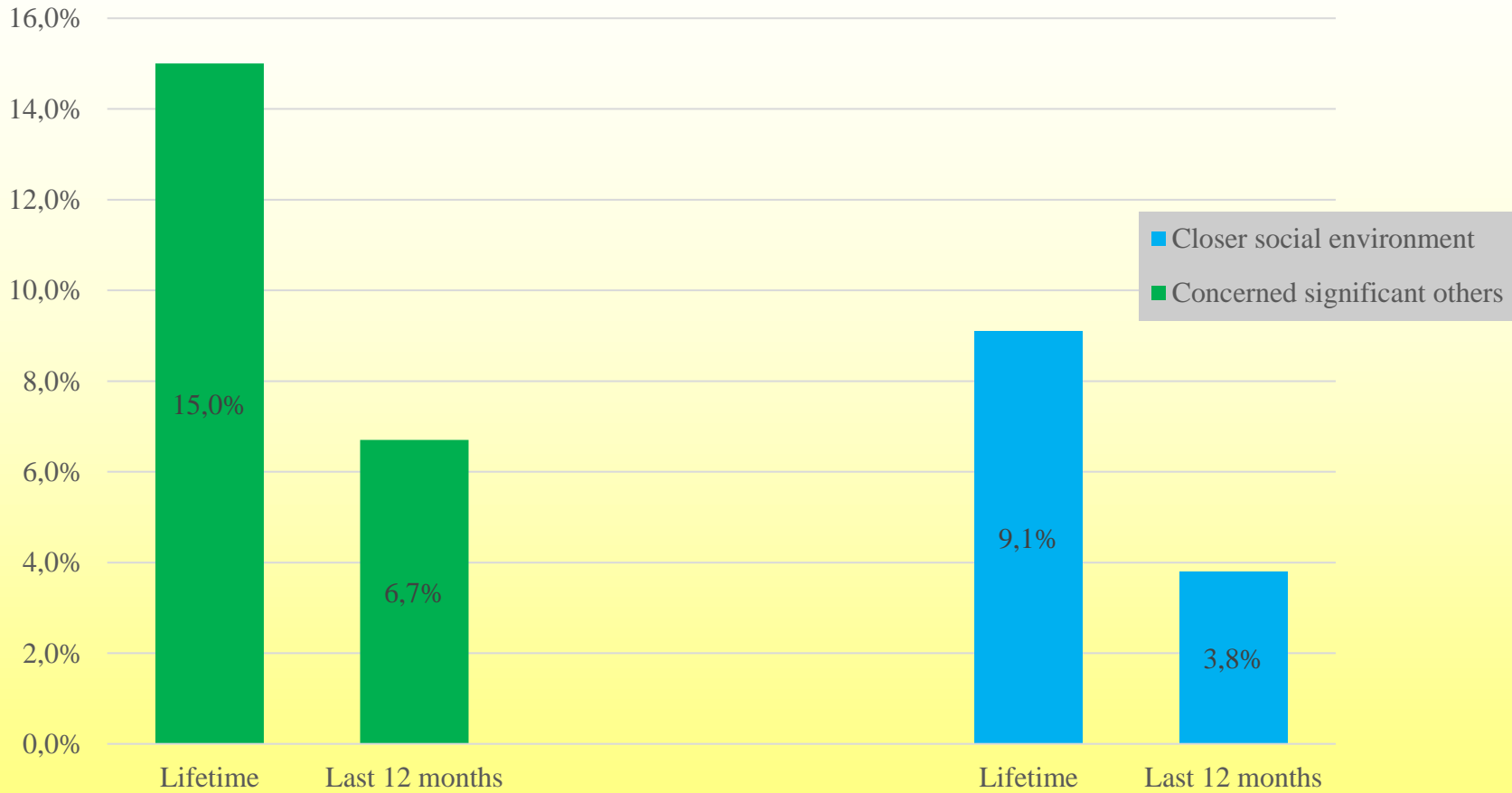




# Results: Severity of Gambling Disorder (DSM-5) by Monthly Monetary Stake for Gambling

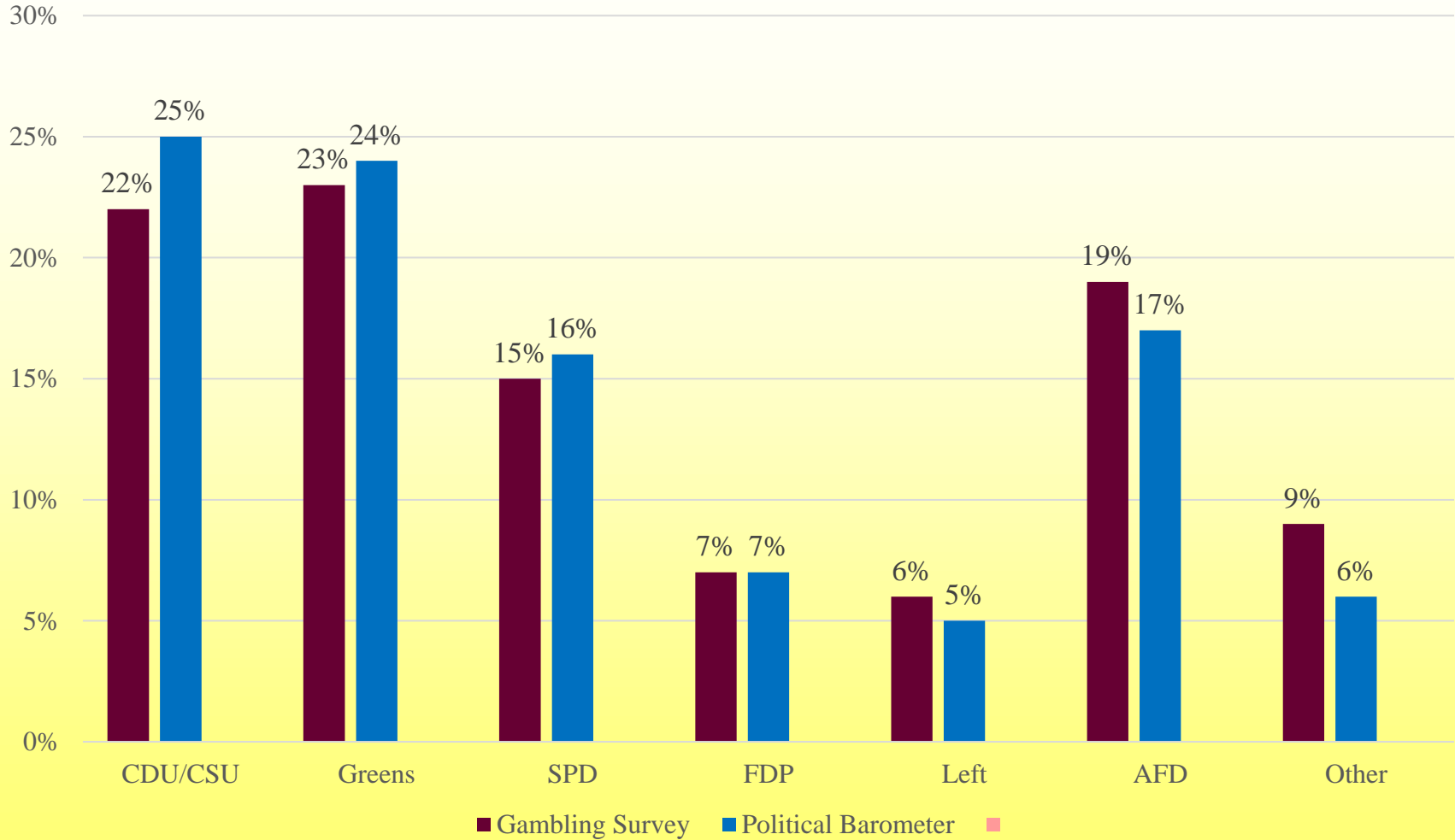


# Results: Effects on the Social Environment of Problem Gamblers





# Results: Question about Political Party Preference





# Discussion (I)

- **Prevalence rates are significantly higher than in previous telephone-only surveys.**
- **In comparison with our mixed-mode survey in 2021 no significant changes are discernible.**
- **Including an online sample in the gambling survey in Great Britain: 2.5% of respondents in 2023 were classified as problem gamblers (Gambling Commission, 2024), compared to 0.4% in a previous study, with respondents only visited in person.**
- **Today there is no alternative to the inclusion of an online sample for a realistic estimate of participation and problem prevalence.**



## Discussion (II)

- **Different approaches to assess the representativeness of the weighted overall sample:**
  - **Election Poll:** The data of our gambling survey and the election poll only differ slightly.
    - **Reliable external figures relating to individual forms of gambling:** At 7.5% the participation prevalence in our weighted overall sample is close to the real number of 7.1% who have bought a ticket for the lottery “Aktion Mensch”.
    - **External information on banned gamblers:** Overall, 0.3% of the total sample of our survey reported an exclusion. In their meta-analysis, Bijker et al. (2023) determined an average prevalence of self-exclusion of 0.26%.



## Discussion (III)

- **Meta-analysis of 342 prevalence studies worldwide with 366 representative samples on gambling, just published in Lancet Public Health (Tran et al., 2024).**
- **Method assessment “Risk of Bias”:** appropriateness of the sample size and sampling, statistical methods used.
- **Best possible rating for our two gambling surveys from 2021 and 2023, all 9 evaluation criteria are colored green as “low risk bias”.**
- **Only a small proportion of all included studies from Western Europe received such a best possible rating (Tran et al, 2024, Appendix 11).**



# Limitations

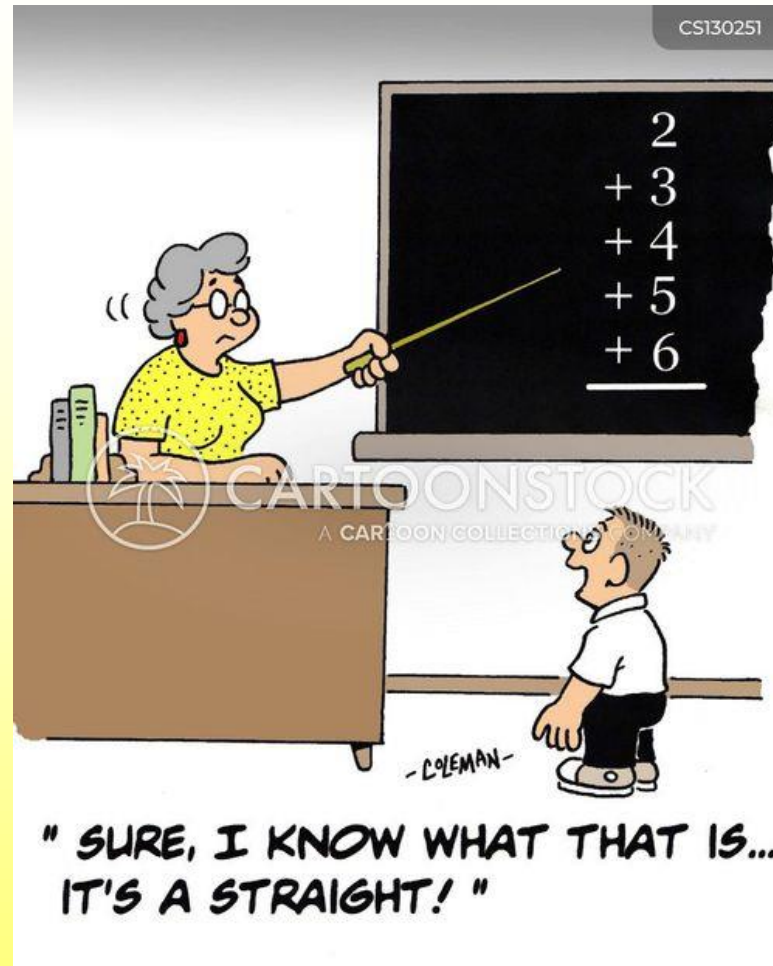
- **The mix of methods used in the present study and the additional mode weighting (2/3 telephone and 1/3 online) attempted to take into account the deficits of both survey modes.**
- **Online respondents cannot be randomly recruited from the population. The associated selection bias can lead to biases in prevalence estimates. Even if attempts are made to minimize its magnitude by means of various measures (e.g., random selection of respondents in panel samples, subsequent weighting, etc.), this problem can rarely be completely eliminated.**
- **Other limitations to be included in the interpretation: possible effects of the new Gambling Treaty and the use of DSM-5 criteria.**





# Conclusion

- **The prevalence of gambling disorder in the general population is stagnating at a high level.**
- **The results of the Gambling Survey reveal the different risk potential of individual forms of gambling, as also reported in many other national and international studies (e.g. Allami et al., 2020).**
- **The Internet plays a significant role in the organization of everyday life for an increasingly large part of the population and is also of considerable importance for leisure behavior (streaming, gaming, gambling).**
- **People who organize their lives online should also be approached online when it comes to recruiting them to participate in surveys.**
- **Even if, in the coming years, the method applied will possibly be readjusted in one place or another (e.g. with regard to the mode weighting), the combination of classic and online-supported survey is a promising way to represent gambling behavior of the population as realistically as possible.**



**Thank you very much for your attention**