



Gambling and Problem Gambling in Germany:

Results of a Mixed-Mode Population Survey in 2021



Background (I)

- **Increase in availability of legal games of chance in the last decades.**
- **Increase in turnover (gambling stakes), gross gambling revenue, government revenue.**
- **Increased demand of problem gamblers for outpatient treatment (2005: 5.100; 2019: 24.900).**
- **Increase of exclusions in casinos (2009: 18.800; 2019: 39.700).**
- **In contrast, in representative population surveys to record problem gambling, conducted every two years since 2007 by telephone, no significant changes are discernible.**
- **Data from 2019: problem gamblers (SOGS) at 0.39%, pathological gamblers at 0.34%, risky gamblers at 3.52%.**



Background (II)

- **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.**
- **Problems of river sampling: Self-selection, not truthfull response behavior.**



Background (III)

- **Importance of mixed-mode surveys has steadily increased in recent years.**
- **Combination of telephone and online survey.**
- **Different ratios of telephone and online data.**
- **Evaluation in terms of their plausability.**
- **Approach is already practiced in election research. For example, the surveys regularly conducted in Germany by the opinion research institute on the population's current voting intentions include two-thirds telephone respondents and one-third online panel participants.**

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:

- **German-speaking population between the ages of 16 and 70.**

Sample sizes:

- **Total: N=12,303**
- **Telephone: N=7,501; Online: N=4,802.**

Weighting:

- **By sociodemographic characteristics (age, gender, high school diploma, and state),**
- **Telephone: 66.6%; online: 33.3%.**

Survey period:

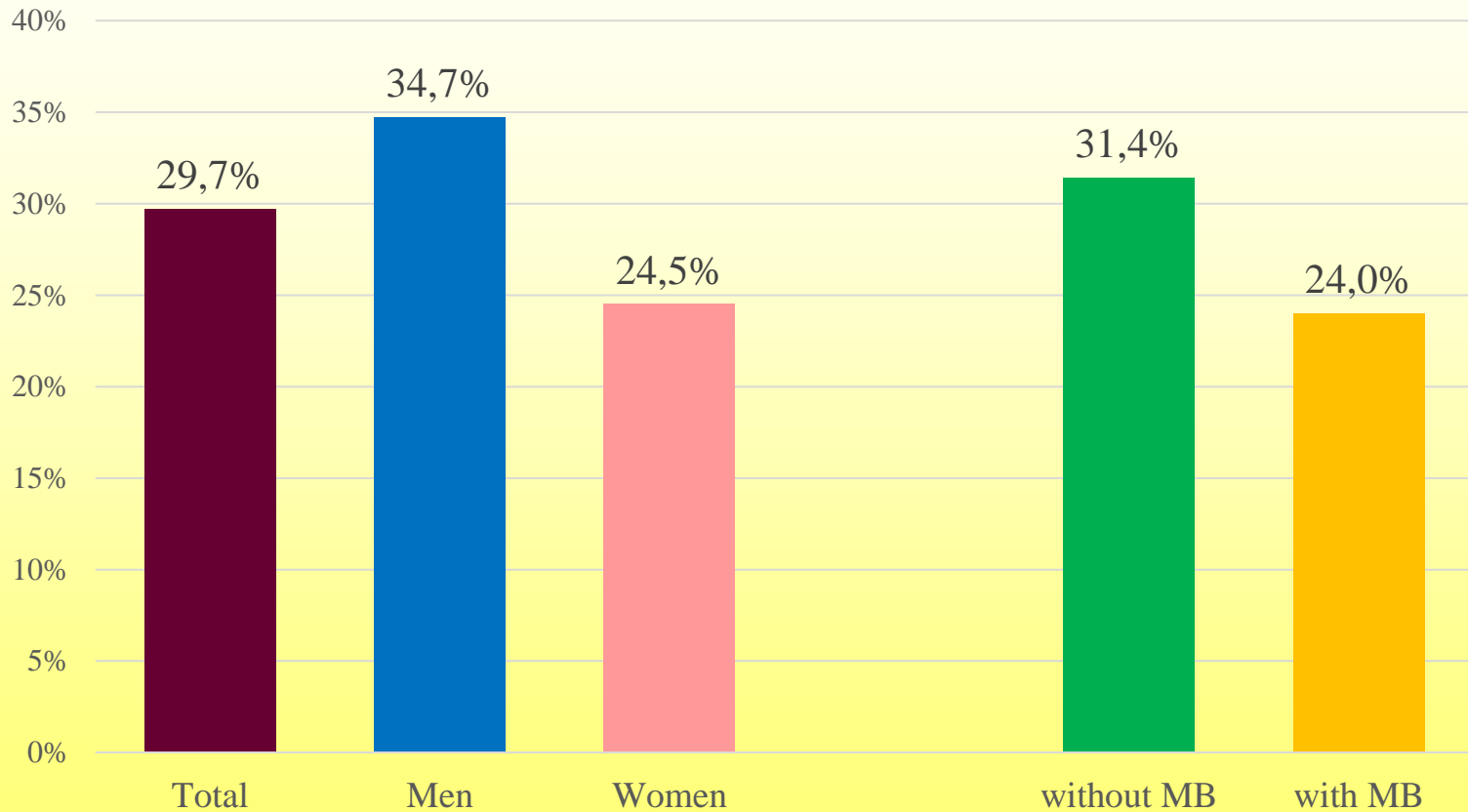
- **August 3 to October 16, 2021.**

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).**

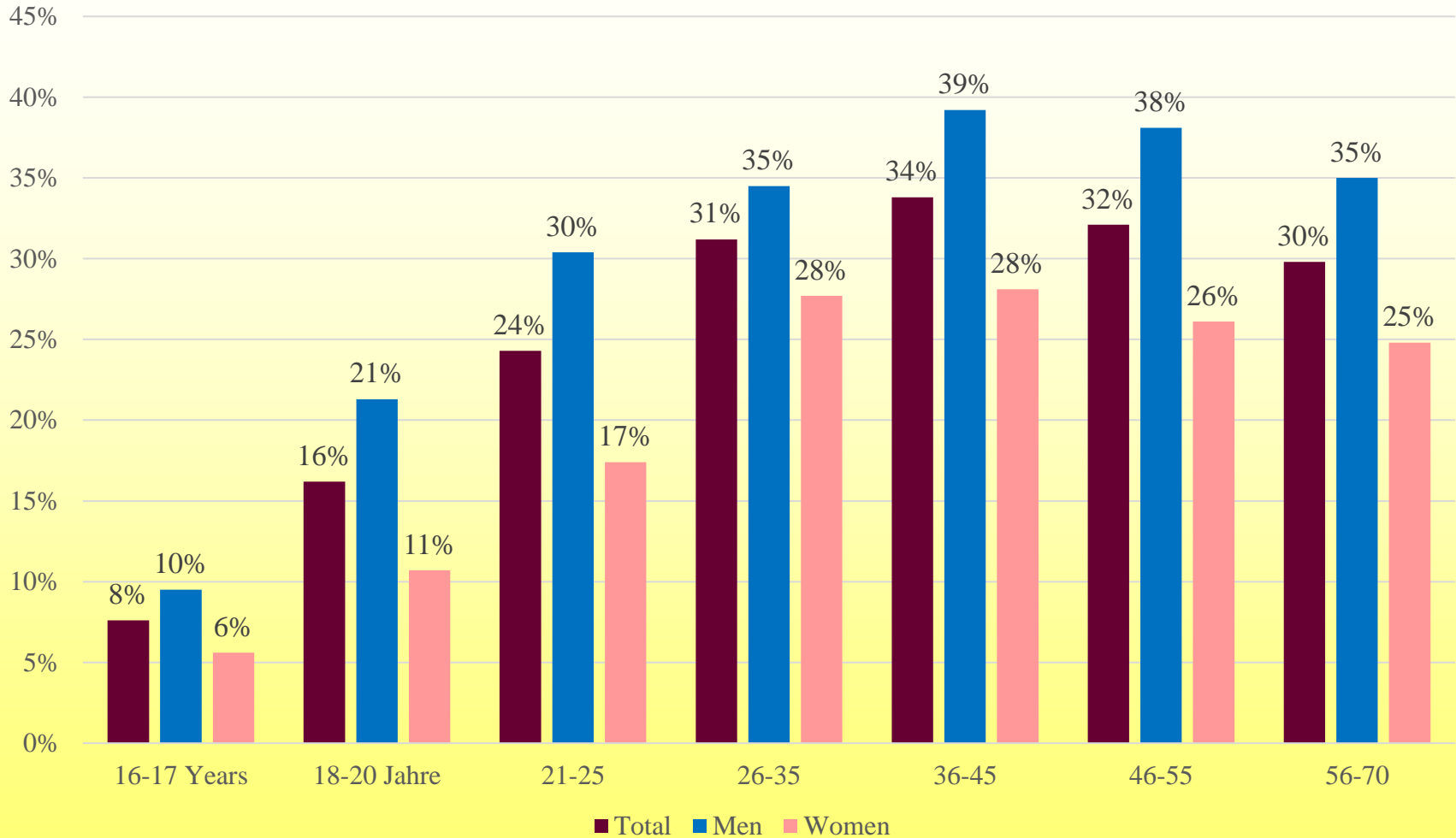


Results: 12-Months Prevalence of Gambling by Gender and Immigration Background (N=12.303)



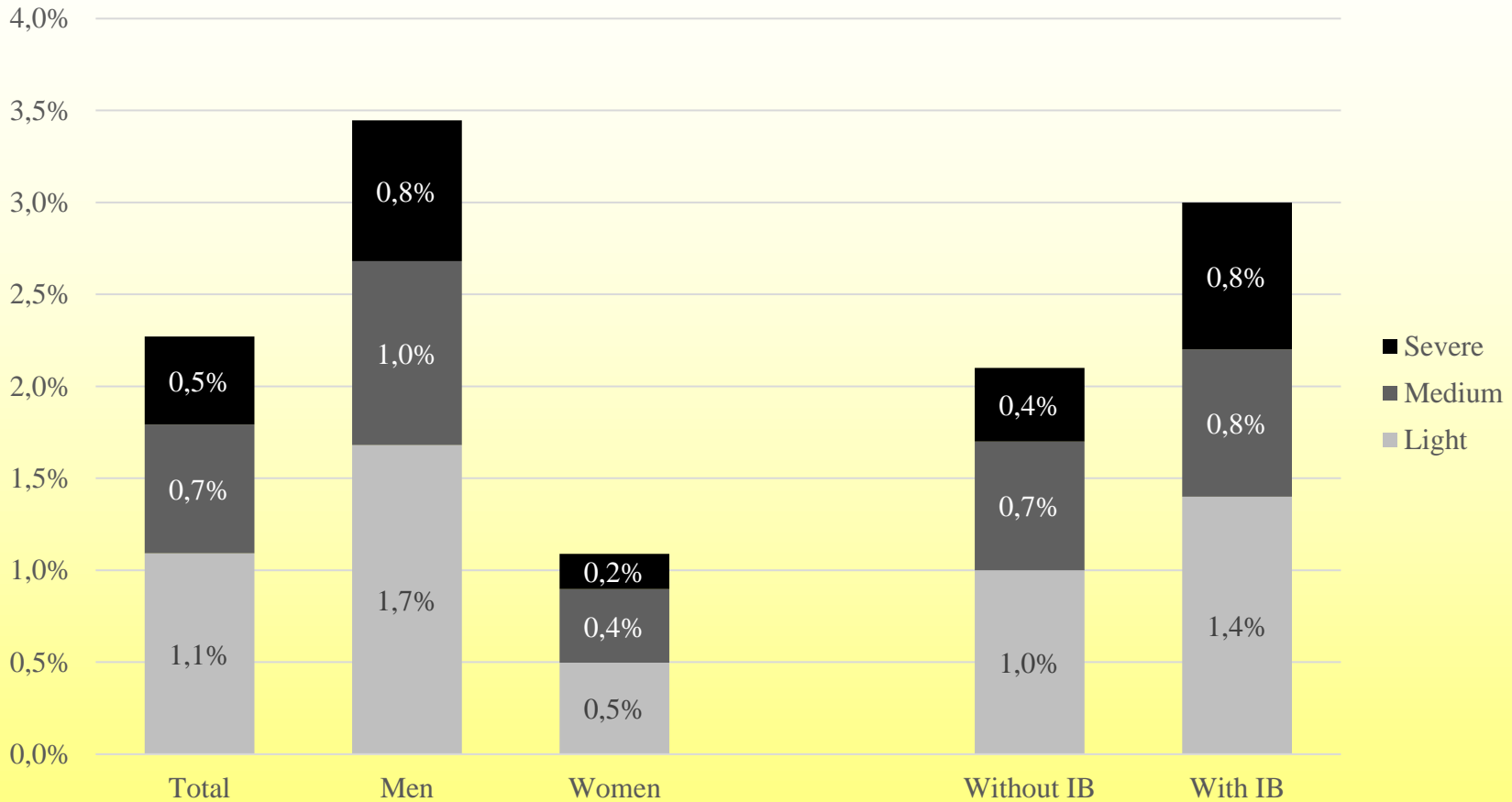


Results: 12-Months Prevalence of Gambling by Age





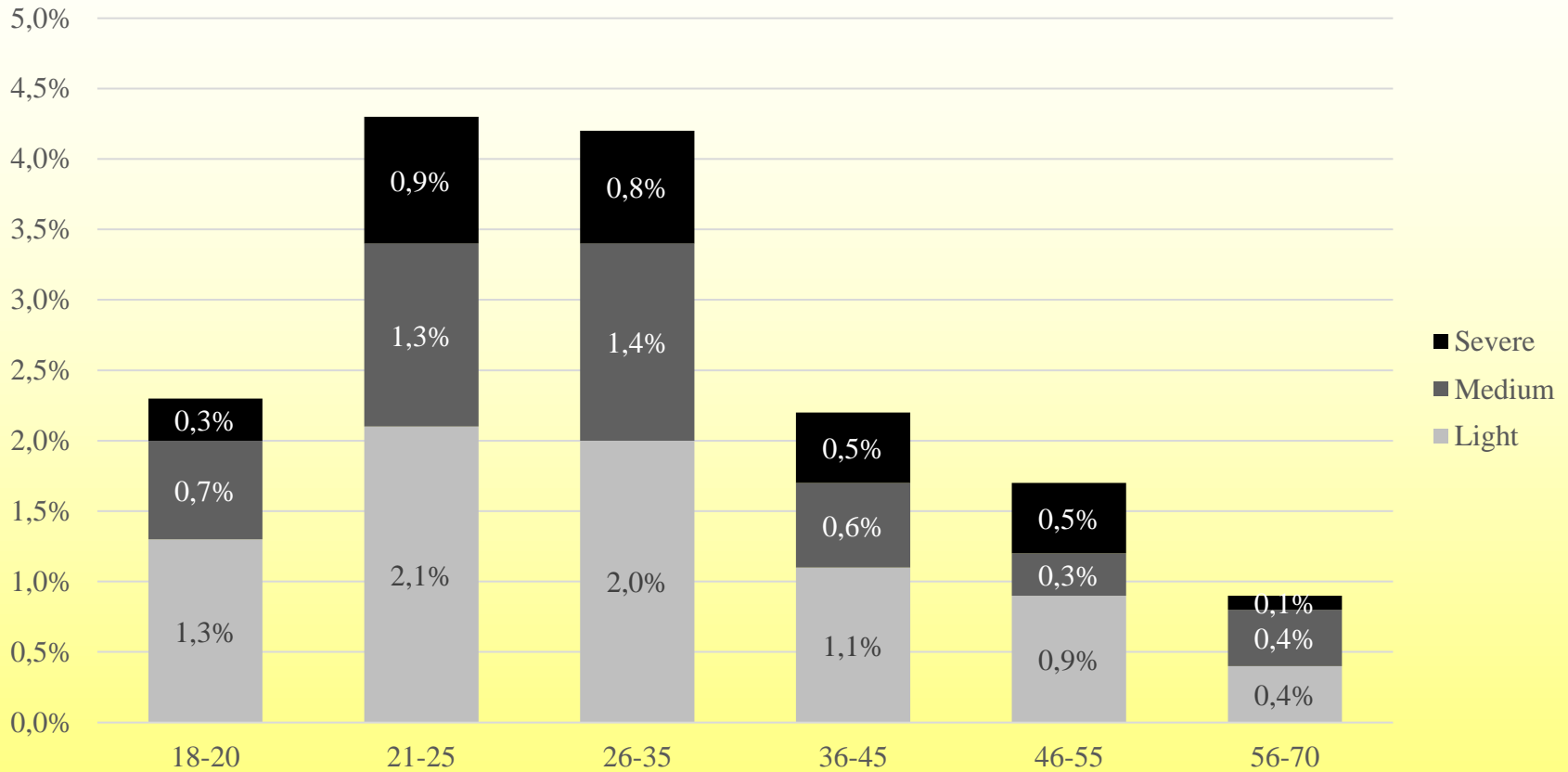
Results: Severity of Gambling Disorder (DSM-5) by Gender and Immigration Background



Risky gambling behavior : 1-3 criteria of DSM-5: 5.7%

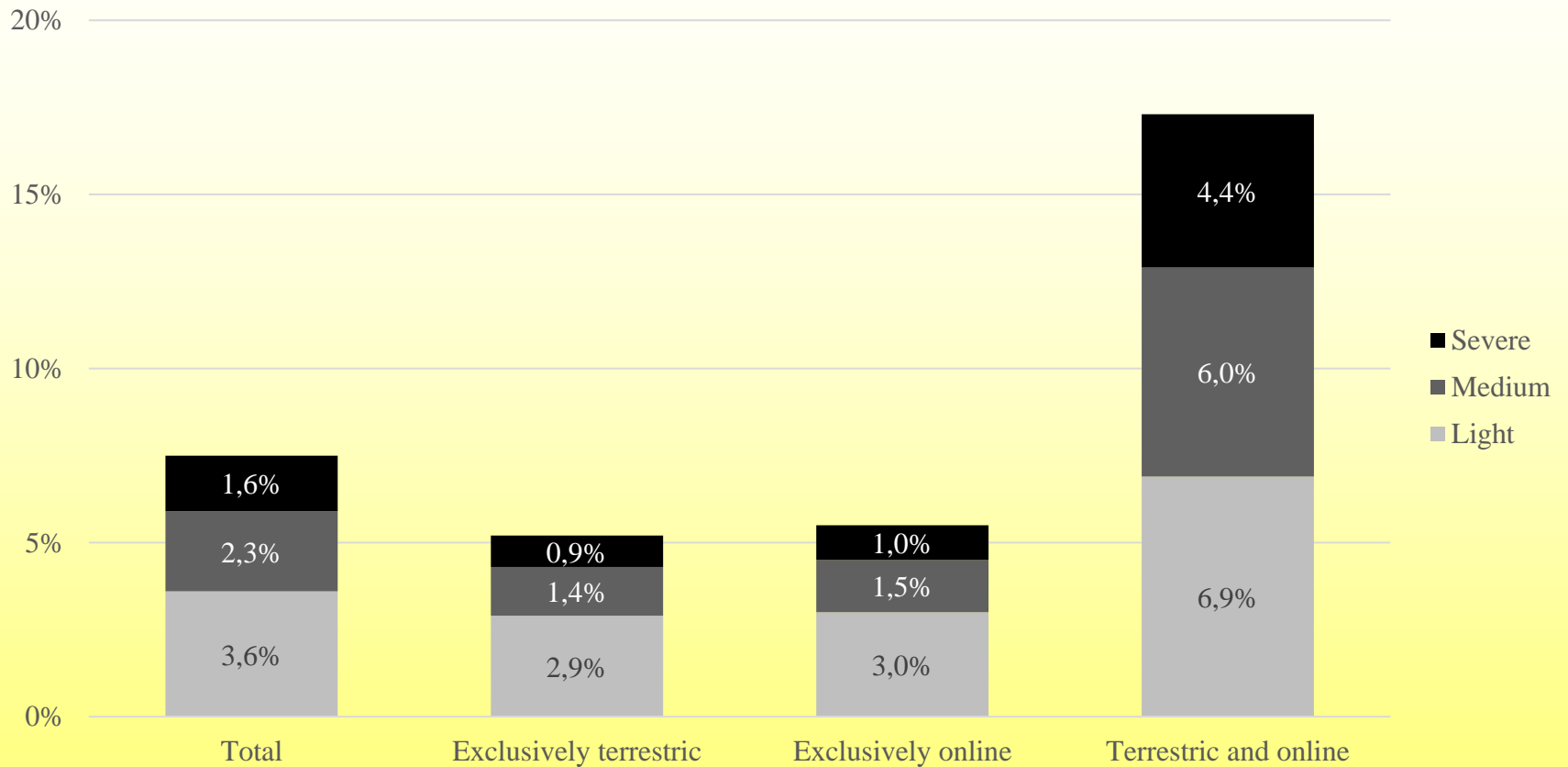


Results: Severity of Gambling Disorder (DSM-5) by Age



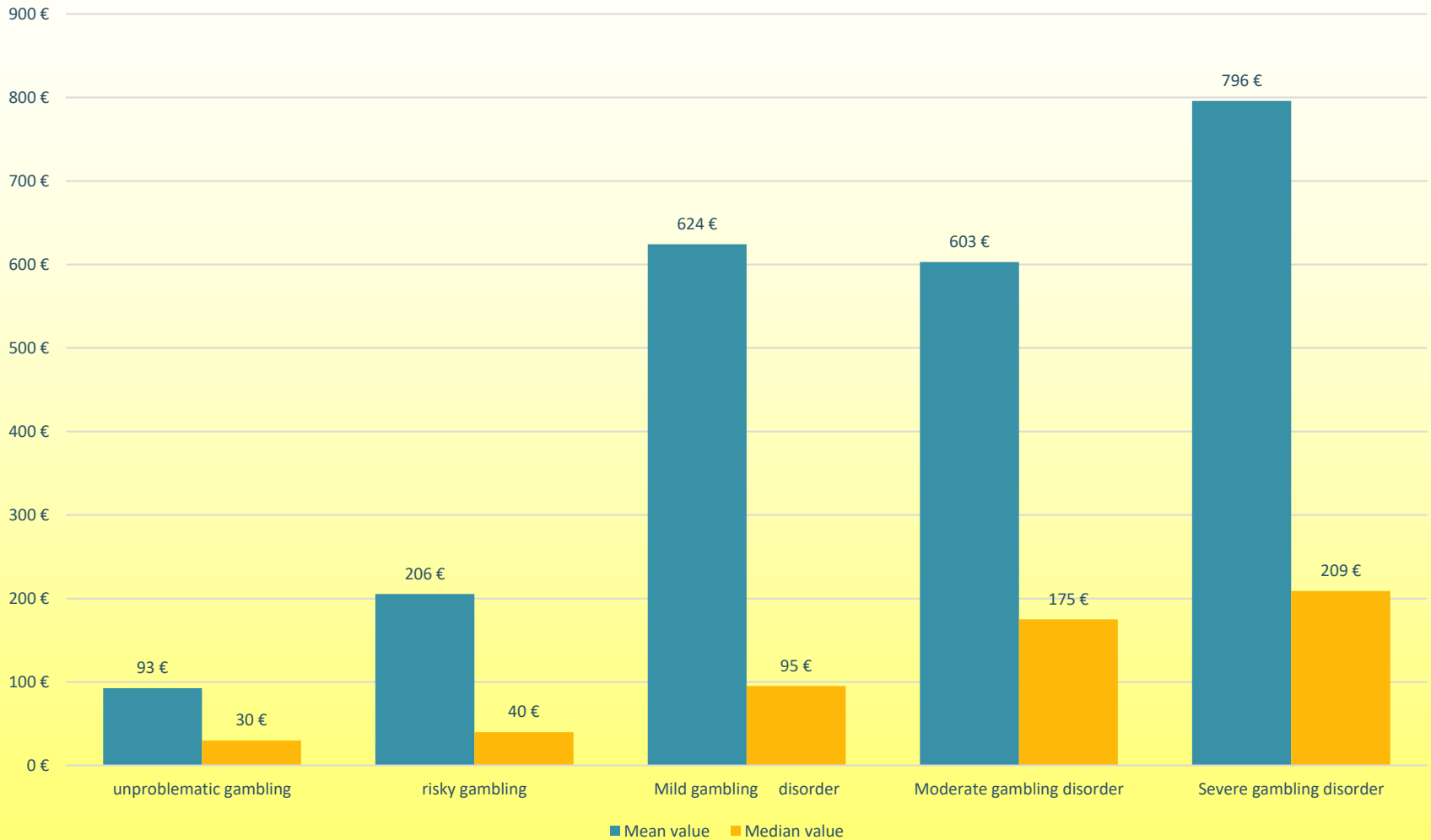


Results: Severity of Gambling Disorder (DSM-5) by Access to Forms of Gambling



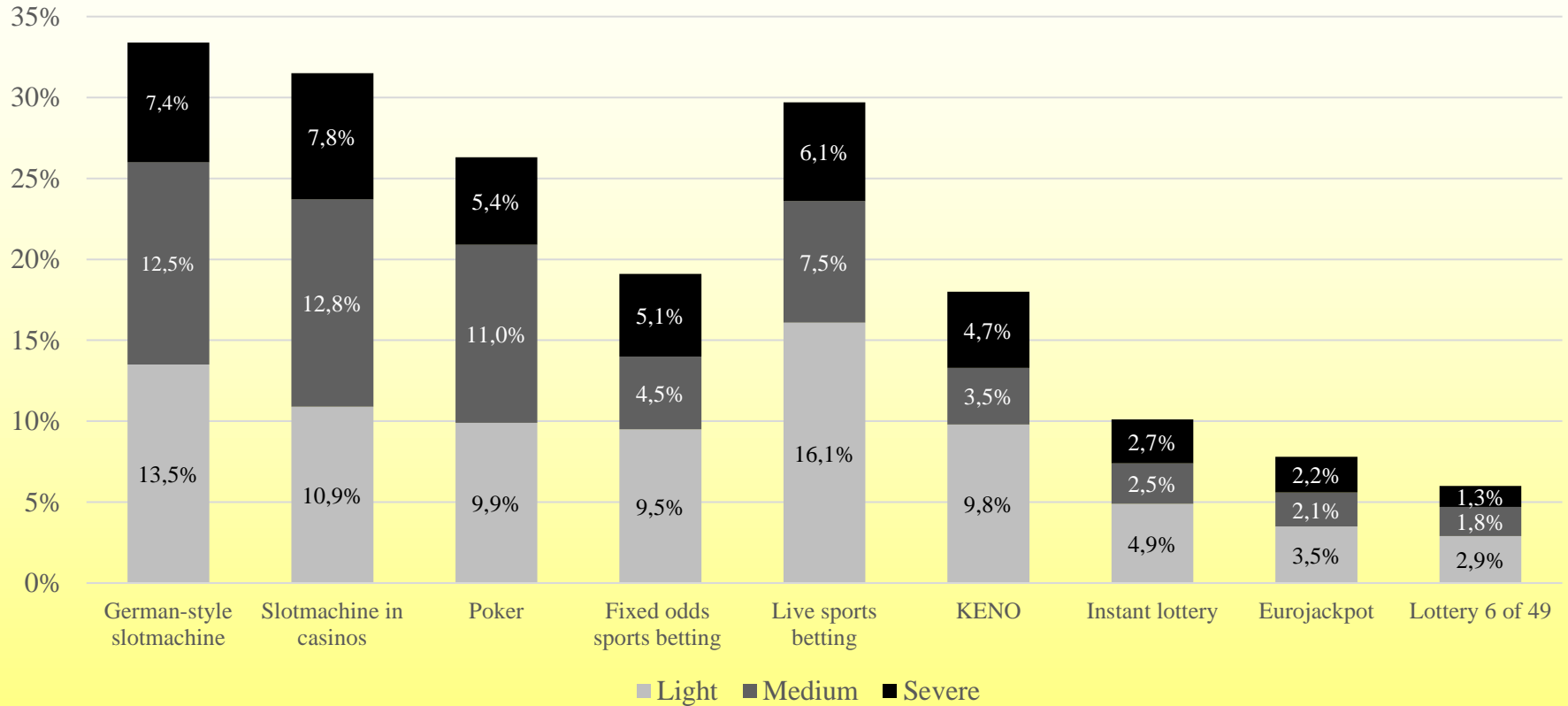


Results: Severity of Gambling Disorder (DSM-5) by Monthly Monetary Stake for Gambling





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





Discussion (I)

- **The prevalence data of a gambling-related disorder in 2021 are significantly higher than in the previous surveys in Germany, which show a stable rate over the last decade.**
- **Stable prevalence rates are also known from other countries, such as New Zealand (Abbott., 2017), Netherlands (Goudriaan, 2014), and Sweden (Abbott, et al, 2014).**
- **Explanation: Adaptation hypothesis (LaPlante & Shaffer, 2007).**
- **Inaccessibility of groups of people who develop severe gambling-related problems (suicide, incarceration) and general changes in social structures (aging population).**
- **Decreasing accessibility of young, tech-savvy people who favor online gambling.**



Discussion (II)

- **New survey methodology: An increase in problem prevalence compared to studies using classic survey methods could be expected. And indeed, the prevalence data of a ‘gambling disorder’ is with 2.3% significantly higher. The same applies to risky gambling behavior at 5.7%.**
- **Data from other countries like Denmark (Spillemyndigheden, 2022) and Norway (Pallesen et al., 2020) also show increasing prevalences in recent years.**
- **In Denmark, the prevalence rate as measured by the 'Problem Gambling Severity Index' (PGSI) more than doubled from 5.2% in 2016 to 10.9% in 2021.**
- **In Norway, the proportion increased from 10.9% in 2015 to 13.2% in 2019.**

Discussion (III)



- **Pros and cons of online surveys are intensely debated in gambling research.**
- **Pickering and Blaszczynski (2021) are mostly critical of the use of purely online surveys and point to the substantially overinflated rates of problem gambling.**
- **Russel et al. (2021) emphasize the advantages of such surveys, such as the possibility to obtain large samples of very specific subgroups and to reduce the bias associated with self-reporting potentially stigmatizing conditions, like problem gambling.**
- **Sturgis and Kuha (2022) show for studies from the United Kingdom that the prevalence rates determined for gambling participation and gambling-related problems in the online studies were in each case significantly higher than the rates obtained in the surveys with personal contact.**
- **True value is to be found within the range of rates spanned by the results from the personal interview and online surveys.**



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 above-mentioned 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 of the results are possible effects of the COVID-19-pandemic, the new Gambling Treaty and the use of DSM-5 criteria.**



Conclusion

- **The internet plays a significant role in the organization of everyday life for an increasingly large part of the population. Professional, financial as well as social matters are handled online.**
- **The Internet 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.**
- **The survey methodology of the present study tries to take this into account.**
- **Even if, in the coming years, the methodology applied will possibly be readjusted a little in one place or another (e.g. with regard to the mode weighting), the combination of classic and online-supported survey is the best way to represent the gambling behavior of the population as realistically as possible.**



Thank you very much for your attention



Reference: Buth, S.; Meyer, G., & Kalke, J. (2022). *Glücksspielteilnahme und glücksspielbezogene Probleme in der Bevölkerung. Ergebnisse des Glücksspiel-Survey 2021 [Gambling participation and gambling-related problems in the population. Results of the Gambling Survey 2021]*. Institut für interdisziplinäre Sucht- und Drogenforschung (ISD), Hamburg.