

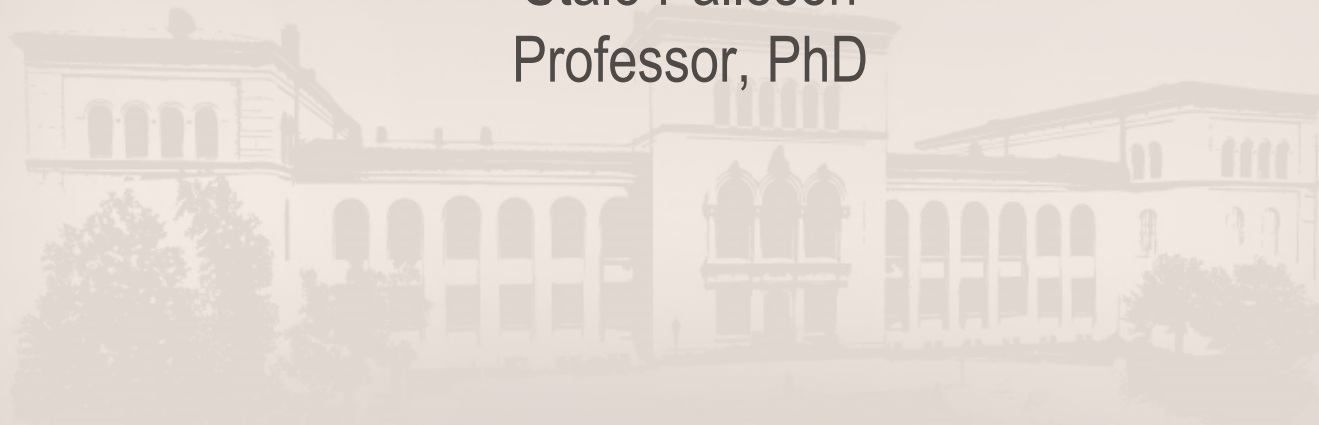
U N I V E R S I T Y O F B E R G E N

Faculty of Psychology

PREVALENCE OF GAMBLING PROBLEMS IN THE NORDIC COUNTRIES

Odense, May 30, 2017

Ståle Pallesen
Professor, PhD



EPIDEMIOLOGICAL STUDIES

- Incidence
 - The proportion of new cases suffering from a disease within a certain time frame
- Prevalence
 - The proportion of the population suffering from a disease.
 - Current (proportion of sufferers within a given time (e.g. last 12 months))
 - Life-time (proportion who have had a disease at least once in their lifetime)

ASSESSMENT OF GAMBLING PROBLEMS

- South Oaks Gambling Screen
- Problem Gambling Severity Index
- NORC-DSM Screen

ASSESSMENT OF GAMBLING PROBLEMS - SOGS

- South-Oaks Gambling Screen
- Based on DSM-III-R (American Psychiatric Association, 1987)
- Scoring 0-20
 - 1-2: Low problems
 - 3-4: Problem gambler
 - 5 or more: Probable pathological gambler

4. When you gamble, how often do you go back another day to win back money you have lost?
- _____ Never _____ Most of the Times I Lose
- _____ Some of the Time _____ Every Time I Lose
(less than half the time I lose)
5. Have you ever claimed to be winning money gambling, but weren't really? In fact, you lost?
- _____ Never
- _____ Yes, less than half the time I lost
- _____ Yes, most of the time
6. Do you feel you have ever had a problem with betting or money gambling?
- _____ No _____ Yes _____ Yes, in the past, but not now
7. Did you ever gamble more than you intended to? _____ Yes _____ No
8. Have people criticized your betting or told you that you had a problem, regardless of whether or not you thought it was true? _____ Yes _____ No
9. Have you ever felt guilty about the way you gamble, or what happens when you gamble? _____ Yes _____ No
10. Have you ever felt like you would like to stop betting money on gambling, but didn't think you could? _____ Yes _____ No
11. Have you ever hidden betting slips, lottery tickets, gambling money, IOUs, or other signs of betting or gambling from your spouse, children or other important people in your life? _____ Yes _____ No

13. *(If you answered "Yes" to question 12)* Have money arguments ever centered on your gambling? _____ Yes _____ No
14. Have you ever borrowed from someone and not paid them back as a result of your gambling? _____ Yes _____ No
15. Have you ever lost time from work (or school) due to betting money or gambling? _____ Yes _____ No
16. If you borrowed money to gamble or to pay gambling debts, who or where did you borrow from (*check "Yes" or "No" for each*):
- a. From household money _____ Yes _____ No
 - b. From your spouse _____ Yes _____ No
 - c. From other relatives or in-laws _____ Yes _____ No
 - d. From banks, loan companies, or credit unions _____ Yes _____ No
 - e. From credit cards _____ Yes _____ No
 - f. From loan sharks _____ Yes _____ No
 - g. You cashed in stocks, bonds or other securities _____ Yes _____ No
 - h. You sold personal or family property _____ Yes _____ No
 - i. You borrowed on your checking accounts (passed bad checks) _____ Yes _____ No

ASSESSMENT OF GAMBLING PROBLEMS - PGSI

- Problem Gambling Severity Index
- Based on SOGS and DSM-IV (American Psychiatric Association, 1994)
- Scoring 0-27
 - 0: Non-problem gambling
 - 1-2: Low risk gambler
 - 3-7: Moderate risk gambler
 - 8 or more: Problem gambler

When you think of the past 12 months, have you bet more than you could really afford to lose?

0 Never 1 Sometimes 2 Most of the time 3 Almost always

Still thinking about the last 12 months, have you needed to gamble with larger amounts of money to get the same feeling of excitement?

0 Never 1 Sometimes 2 Most of the time 3 Almost always

When you gambled, did you go back another day to try to win back the money you lost?

0 Never 1 Sometimes 2 Most of the time 3 Almost always

Have you borrowed money or sold anything to get money to gamble?

0 Never 1 Sometimes 2 Most of the time 3 Almost always

Have you felt that you might have a problem with gambling?

0 Never 1 Sometimes 2 Most of the time 3 Almost always

Has gambling caused you any health problems, including stress or anxiety?

0 Never 1 Sometimes 2 Most of the time 3 Almost always

Have people criticized your betting or told you that you had a gambling problem, regardless of whether or not you thought it was true?

0 Never 1 Sometimes 2 Most of the time 3 Almost always

Has your gambling caused any financial problems for you or your household?

0 Never 1 Sometimes 2 Most of the time 3 Almost always

Have you felt guilty about the way you gamble or what happens when you gamble?

0 Never 1 Sometimes 2 Most of the time 3 Almost always

ASSESSMENT OF GAMBLING PROBLEMS - NODS

- NORC DSM Screen for Gambling Problems
- Based on the DSM-IV (American Psychiatric Association, 1994)
- Scoring 0-10
 - 0: Non-problem gambling
 - 1-2: Mild risk of problems
 - 3-4: Subclinical risk
 - 5 or more: Likely diagnosis of pathological gambling

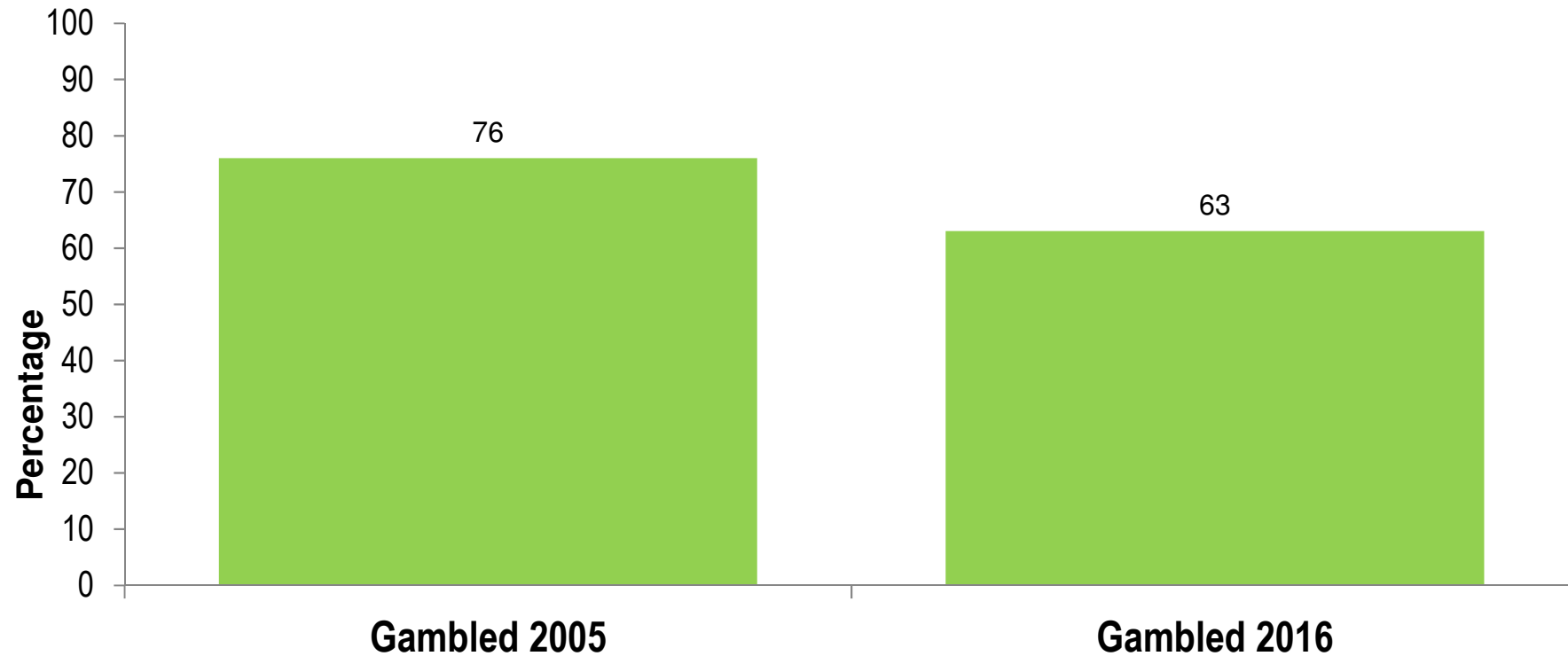
ASSESSMENT OF GAMBLING PROBLEMS

- SOGS – based on DSM
- PGSI
- NORC-DSM Screen

DENMARK

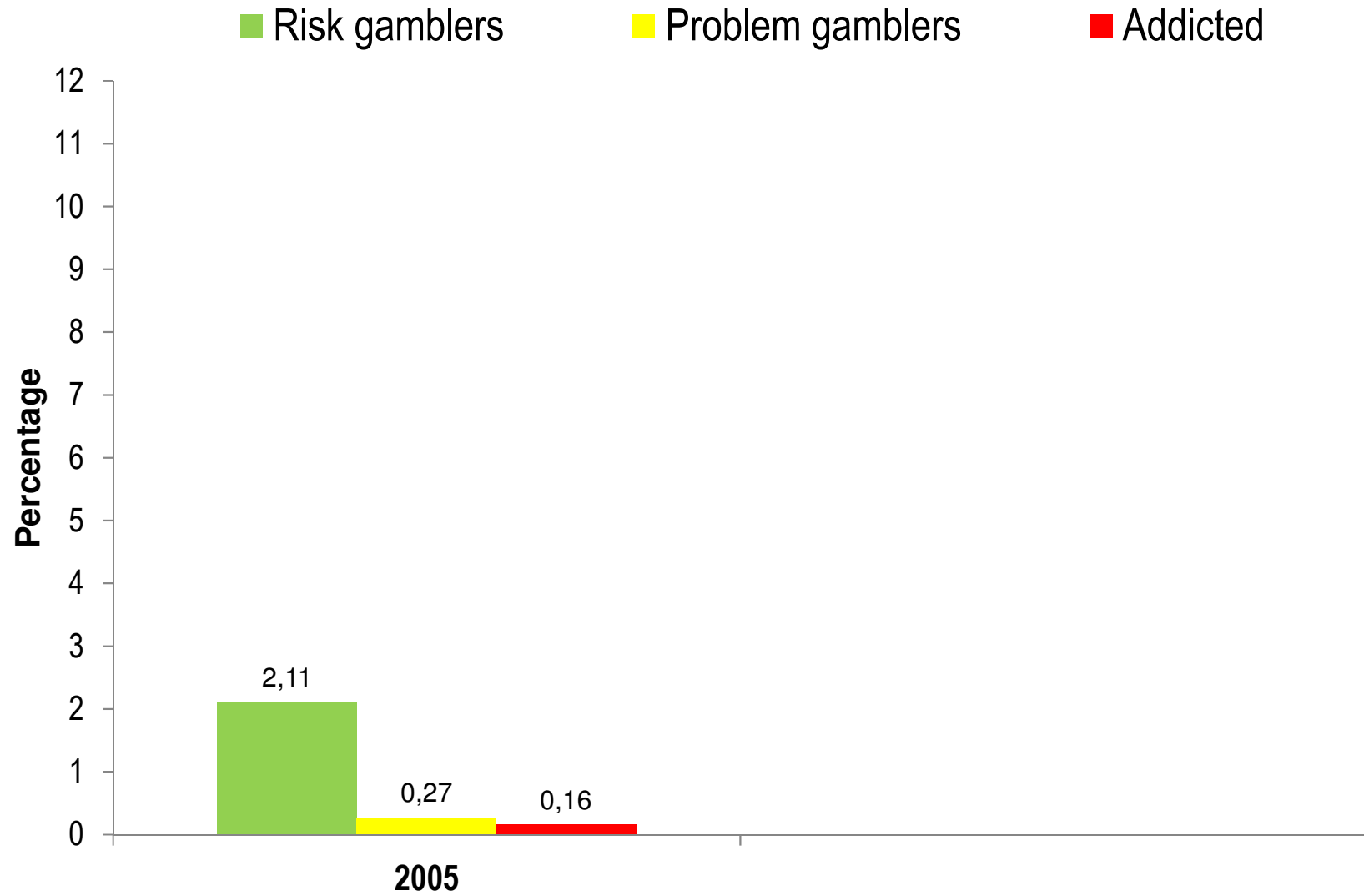
Denmark	
N sampling frame	10 900
Sampling frame	Civil registration number registry
Year (comp year)	2016 (2005)
Age	18-74
Sampling	Plain random
Warning letter	YES
Data collection	Phone 81% Web 19%
Incentives	NONE
Response rate	59.3% (n=6274)
Weights	Age, origin, education, occup. status, income
Attrition	Young, males, immigrants, low education, low income
Gambling Problem Screen	PGSI and NODS
Ethical approval	Exempted

PARTICIPATED IN GAMBLING LAST 12 MONTHS (DENMARK)



$p < .05$

PREVALENCE OF GAMBLING PROBLEMS (NODS; DENMARK)

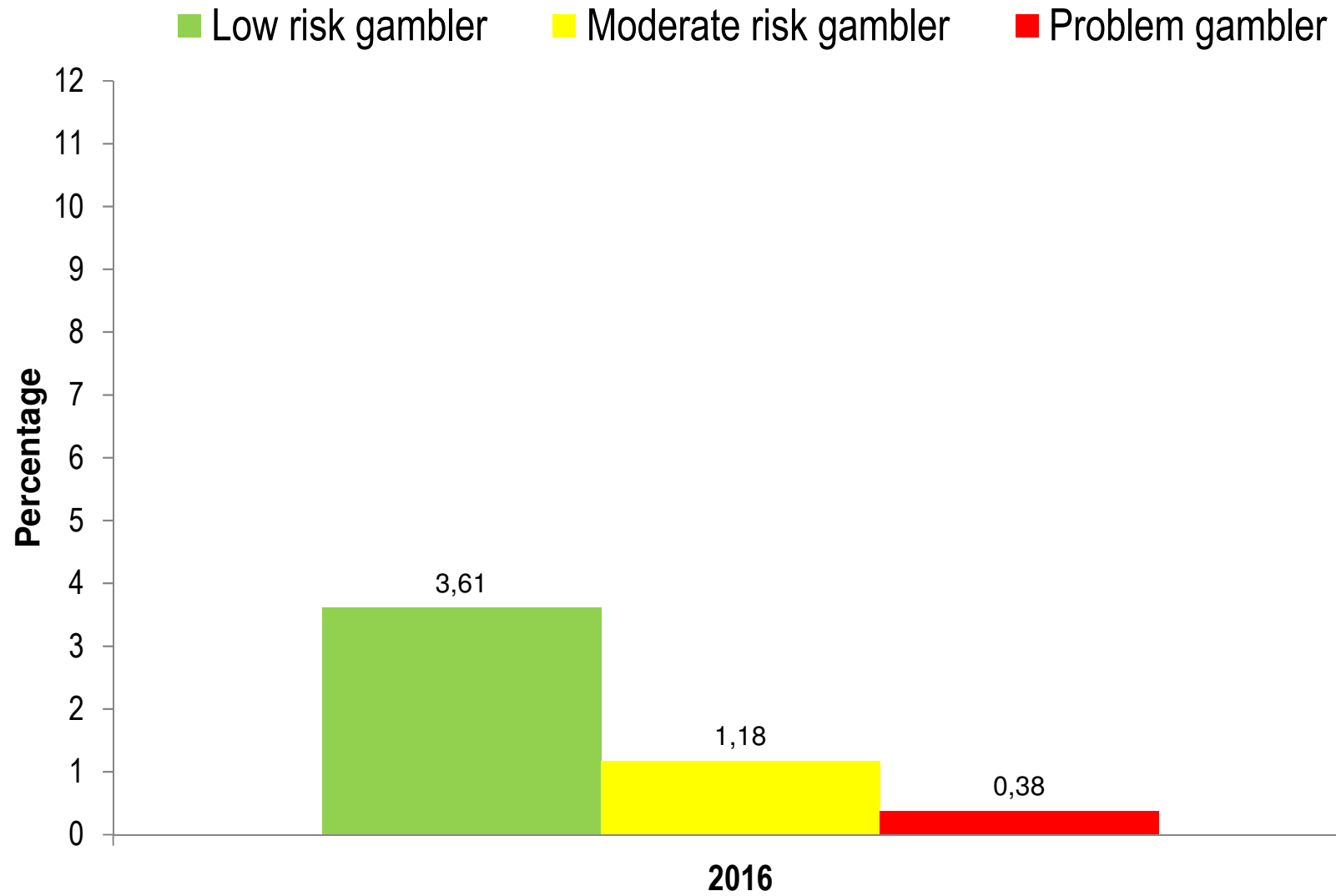


PREVALENCE OF GAMBLING PROBLEMS (NODS; DENMARK)



$p < .05$ for overall increase from 2005 to 2016

PREVALENCE OF GAMBLING PROBLEMS (PGSI; DENMARK)

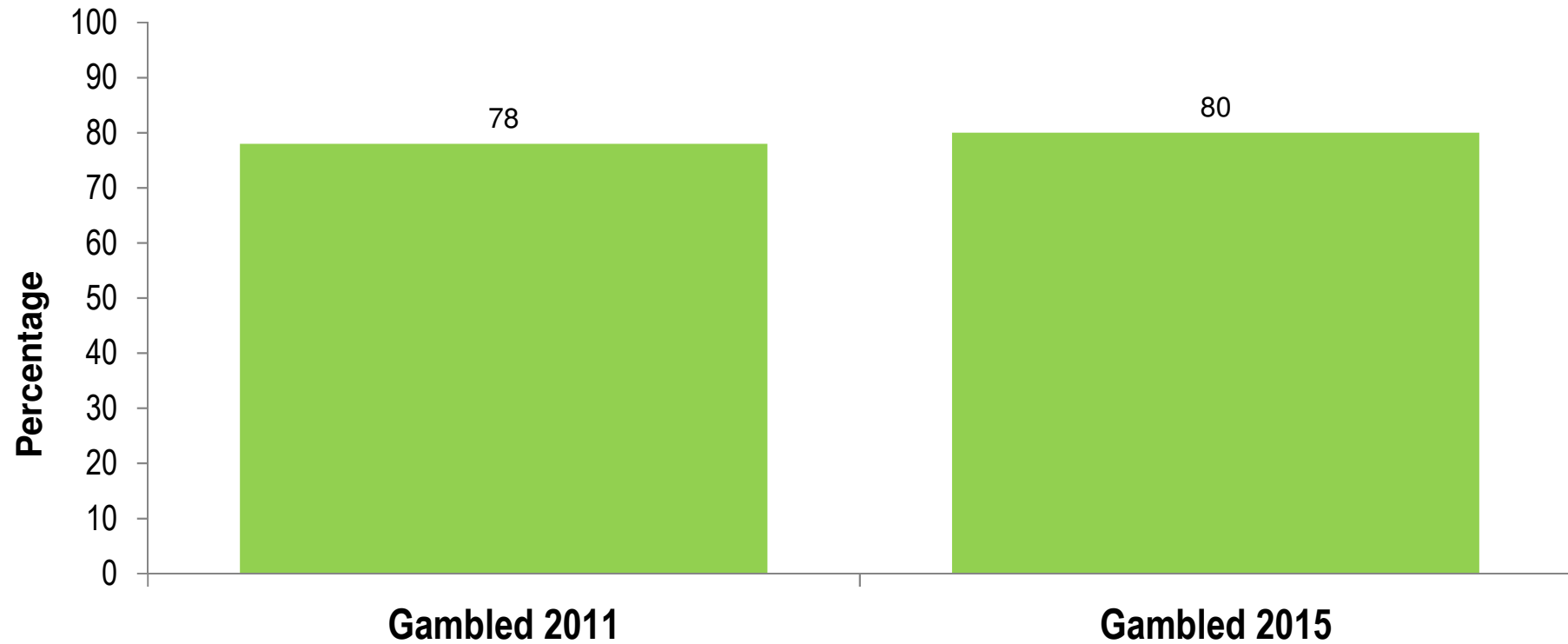


FINLAND

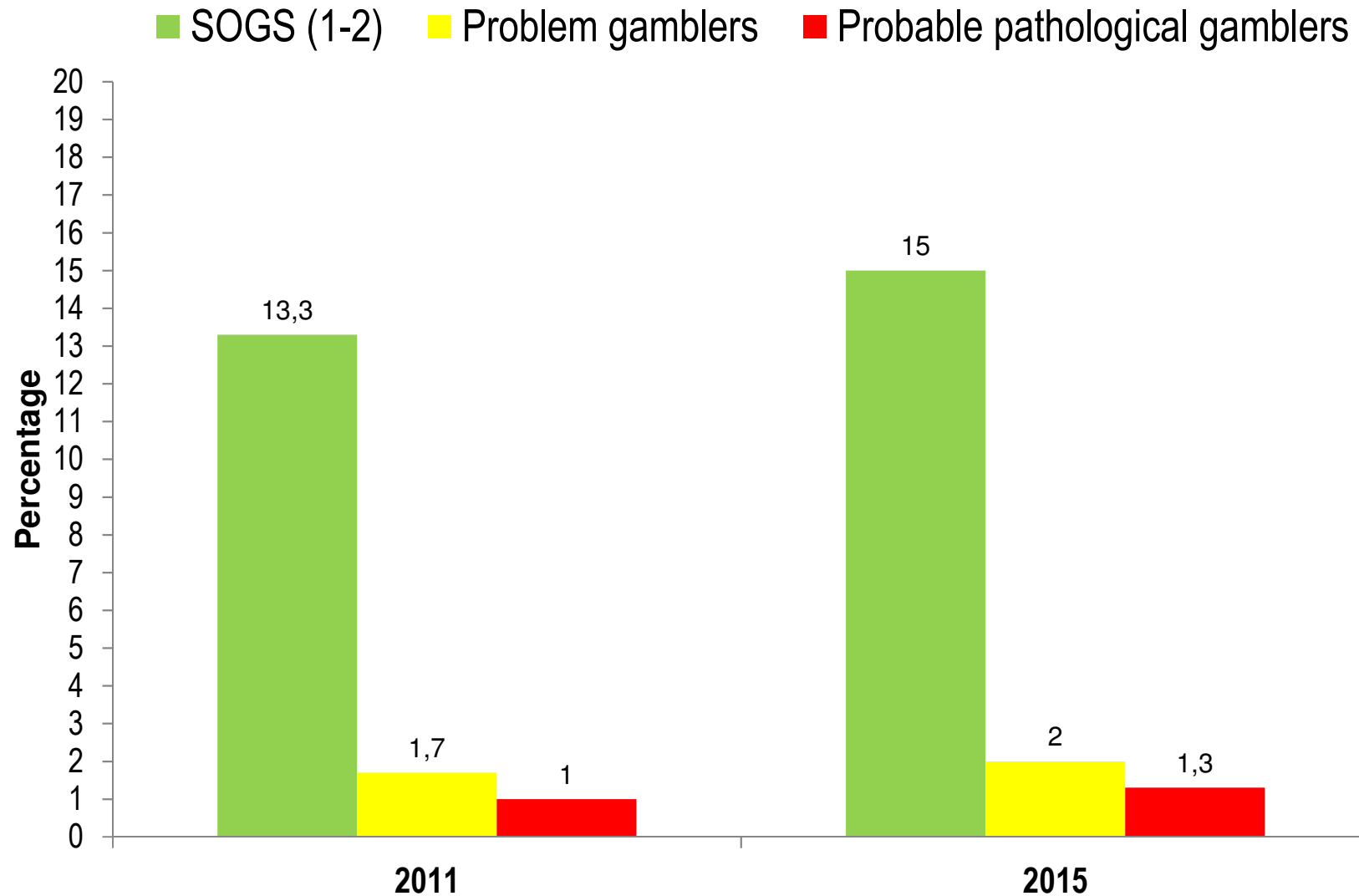
Finland

N sampling frame	7 400
Sampling frame	Population registry
Year (comp year)	2015 (2011)
Age	15-74
Sampling	Plain random
Warning letter	YES
Data collection	Phone CATI
Incentives	3 Apple Ipods
Response rate	62% (n=4514)
Weights	Sex, age, region
Attrition	Young subjects and females underrepresented
Gambling Problem Screen	SOGS and PGSI
Ethical approval	Ethics Committee of the National Institute for Health and Welfare 2015: HL/1122/6.02.01/2014)

PARTICIPATED IN GAMBLING LAST 12 MONTHS (FINLAND)

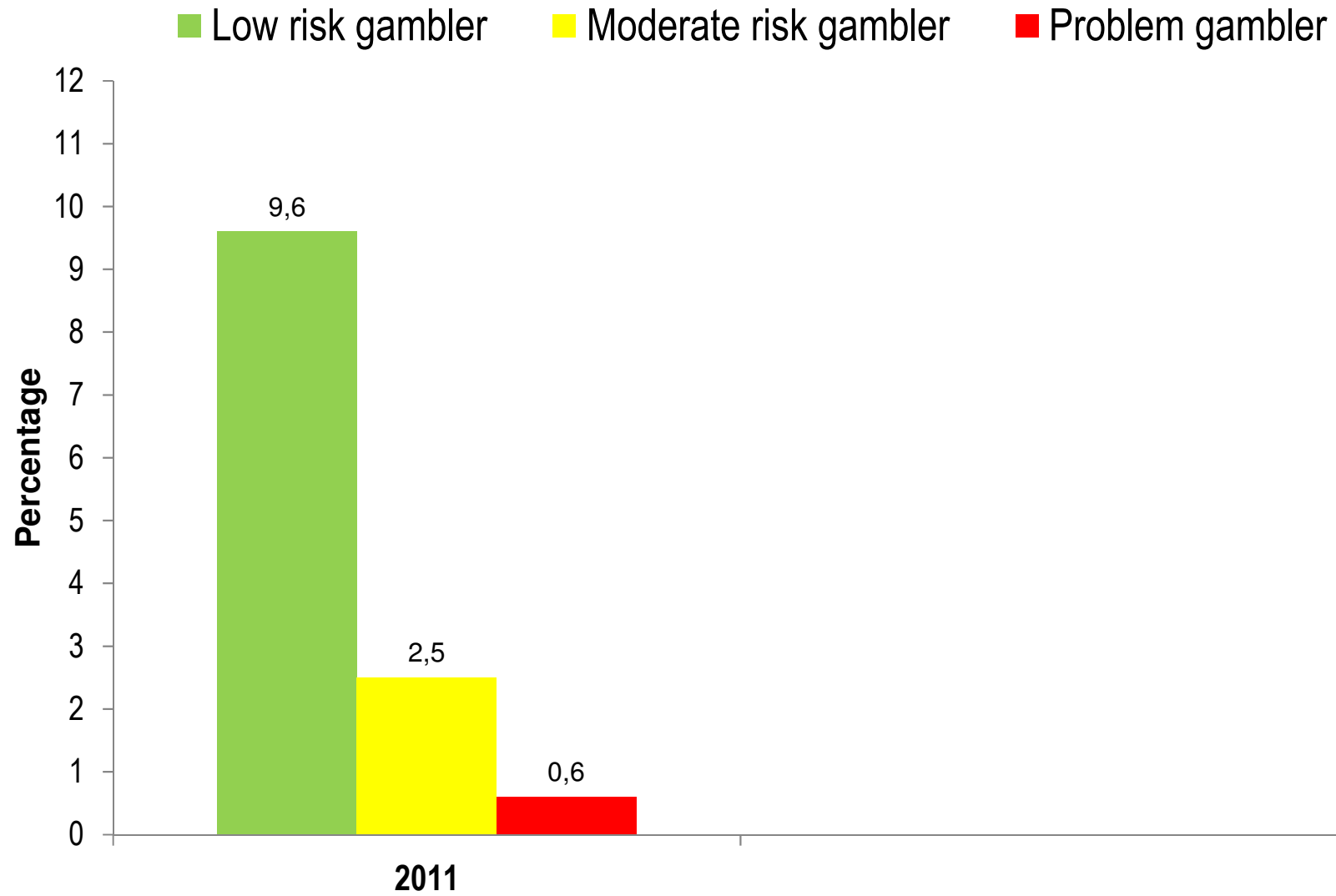


PREVALENCE OF GAMBLING PROBLEMS (SOGS; FINLAND)

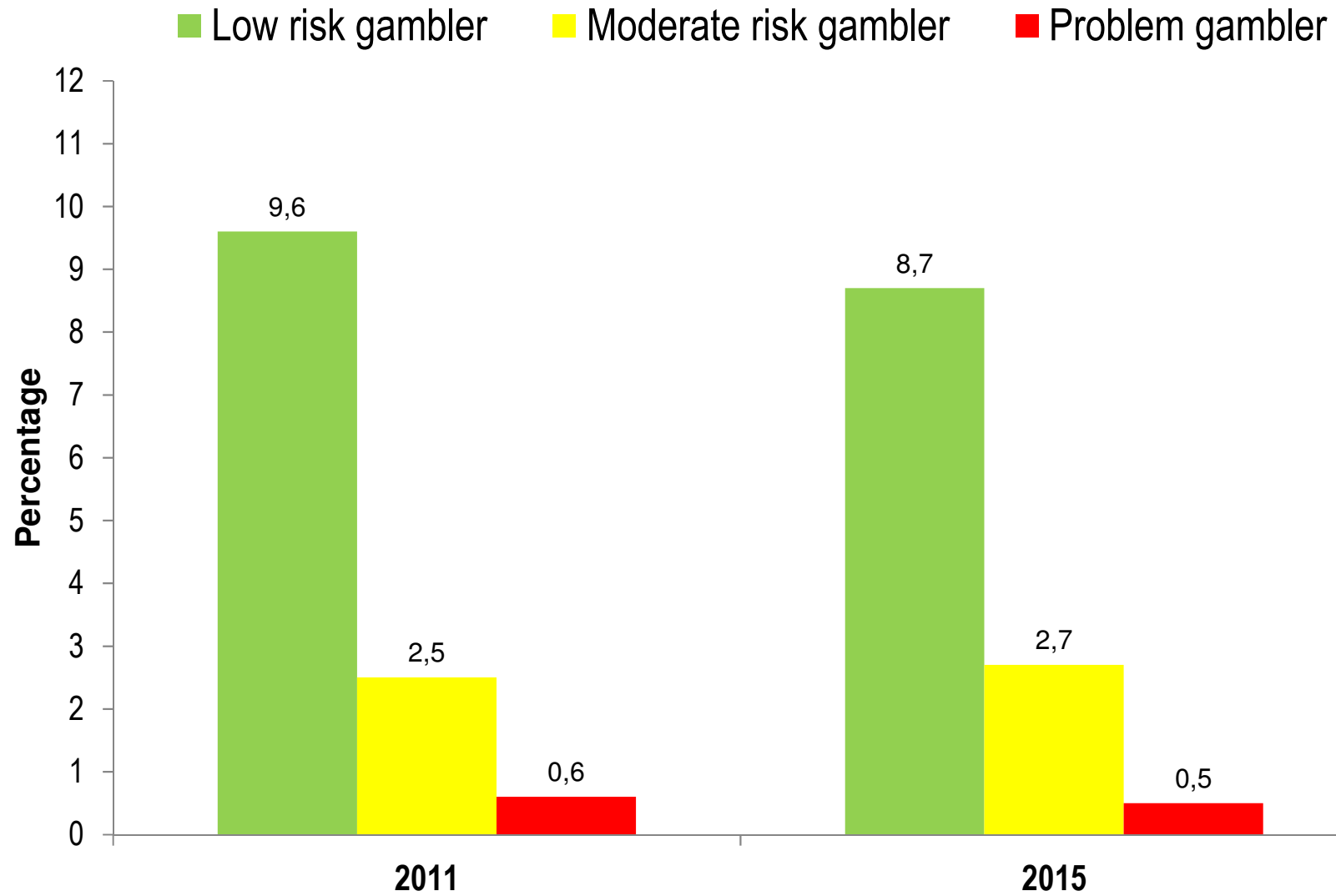


SOGS (1-2); $p < .05$, otherwise $p = .ns$

PREVALENCE OF GAMBLING PROBLEMS (PGSI; FINLAND)



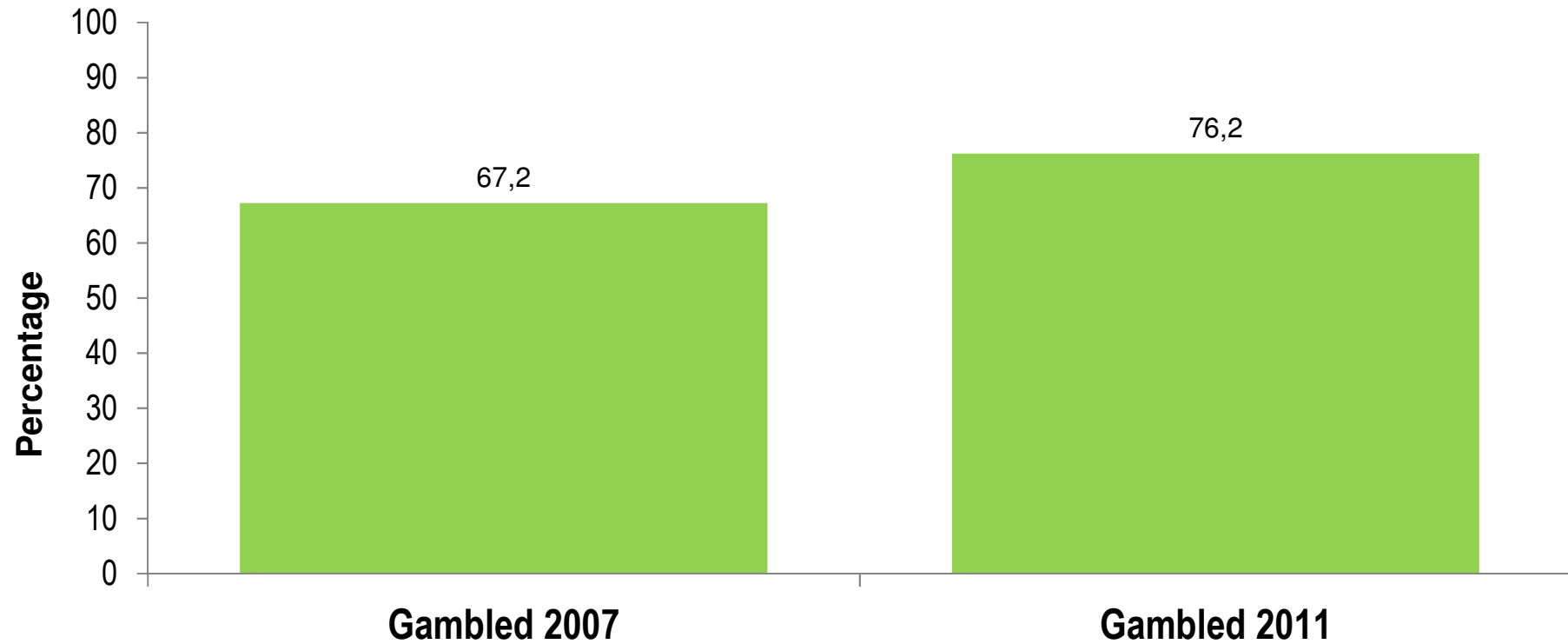
PREVALENCE OF GAMBLING PROBLEMS (PGSI; FINLAND)



ICELAND

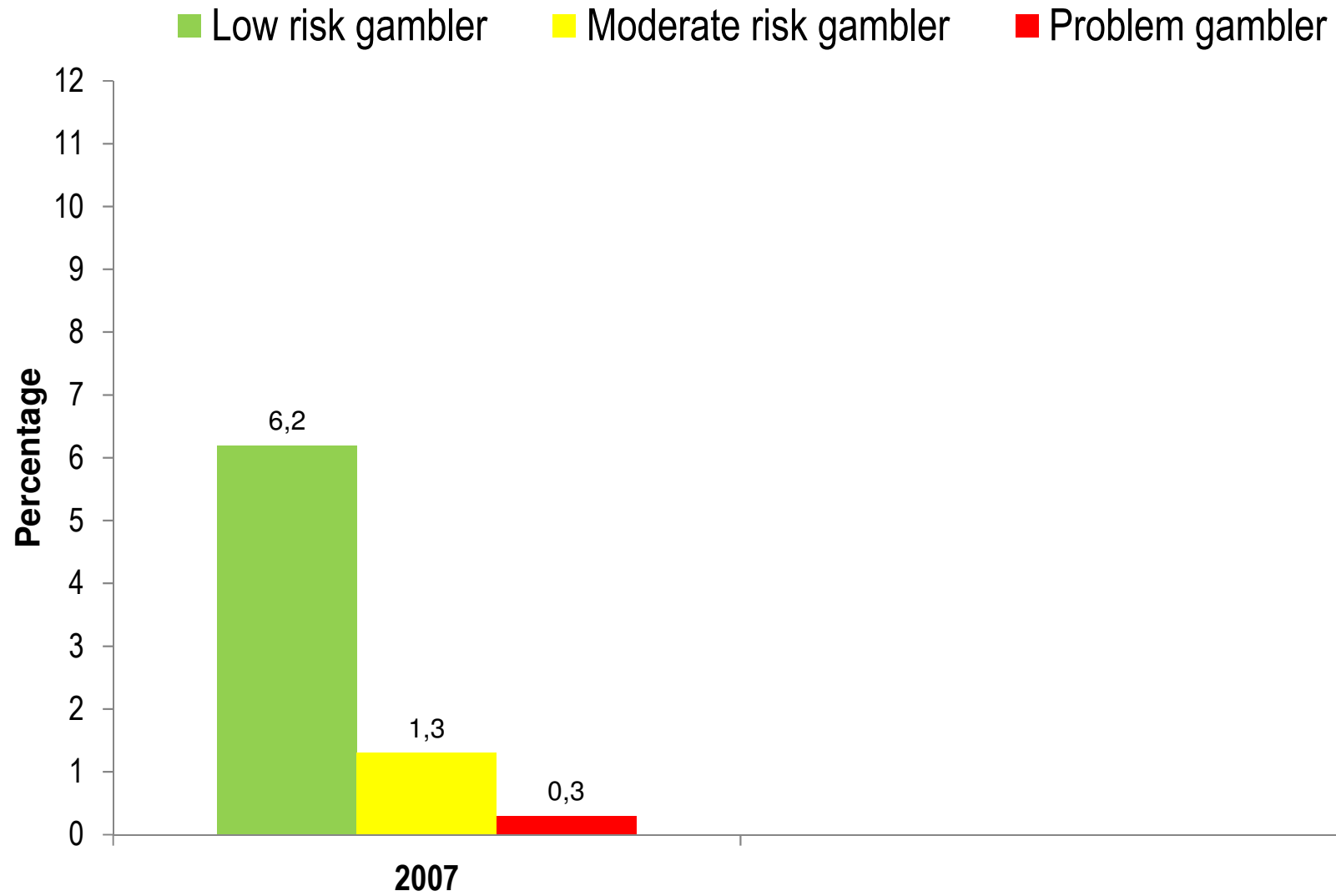
Iceland	
N sampling frame	3 227
Sampling frame	Population registry
Year (comp year)	2011 (2007)
Age	18-70
Sampling	Plain random
Warning letter	YES
Data collection	Phone
Incentives	NONE
Response rate	61.8% (n=1887)
Weights	Sex, age, residence
Attrition	Men and young people underrepresented
Gambling Problem Screen	PGSI
Ethical approval	Exempted

PARTICIPATED IN GAMBLING LAST 12 MONTHS (ICELAND)

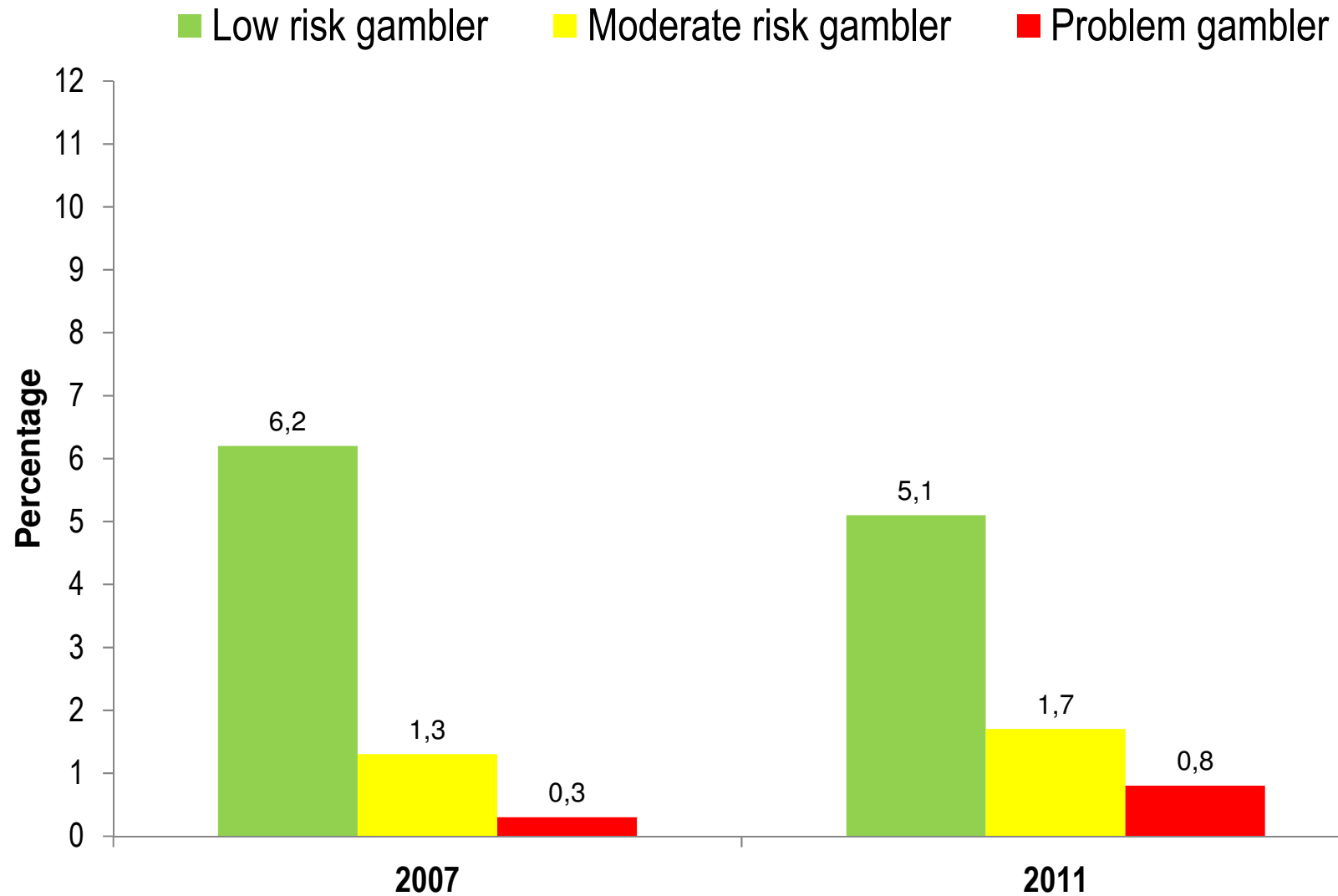


$p < .01$

PREVALENCE OF GAMBLING PROBLEMS (PGSI; ICELAND)



PREVALENCE OF GAMBLING PROBLEMS (PGSI; ICELAND)

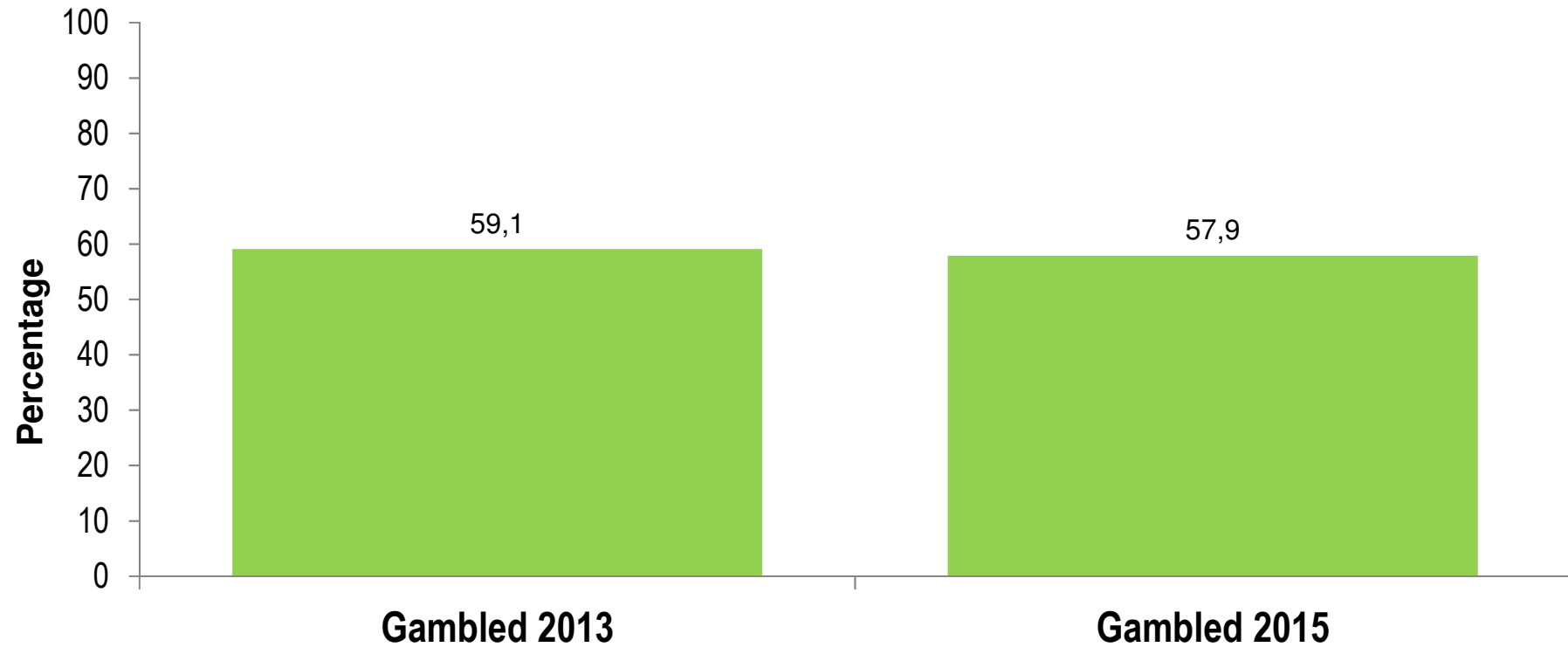


$p < .05$ for problem gambling

NORWAY

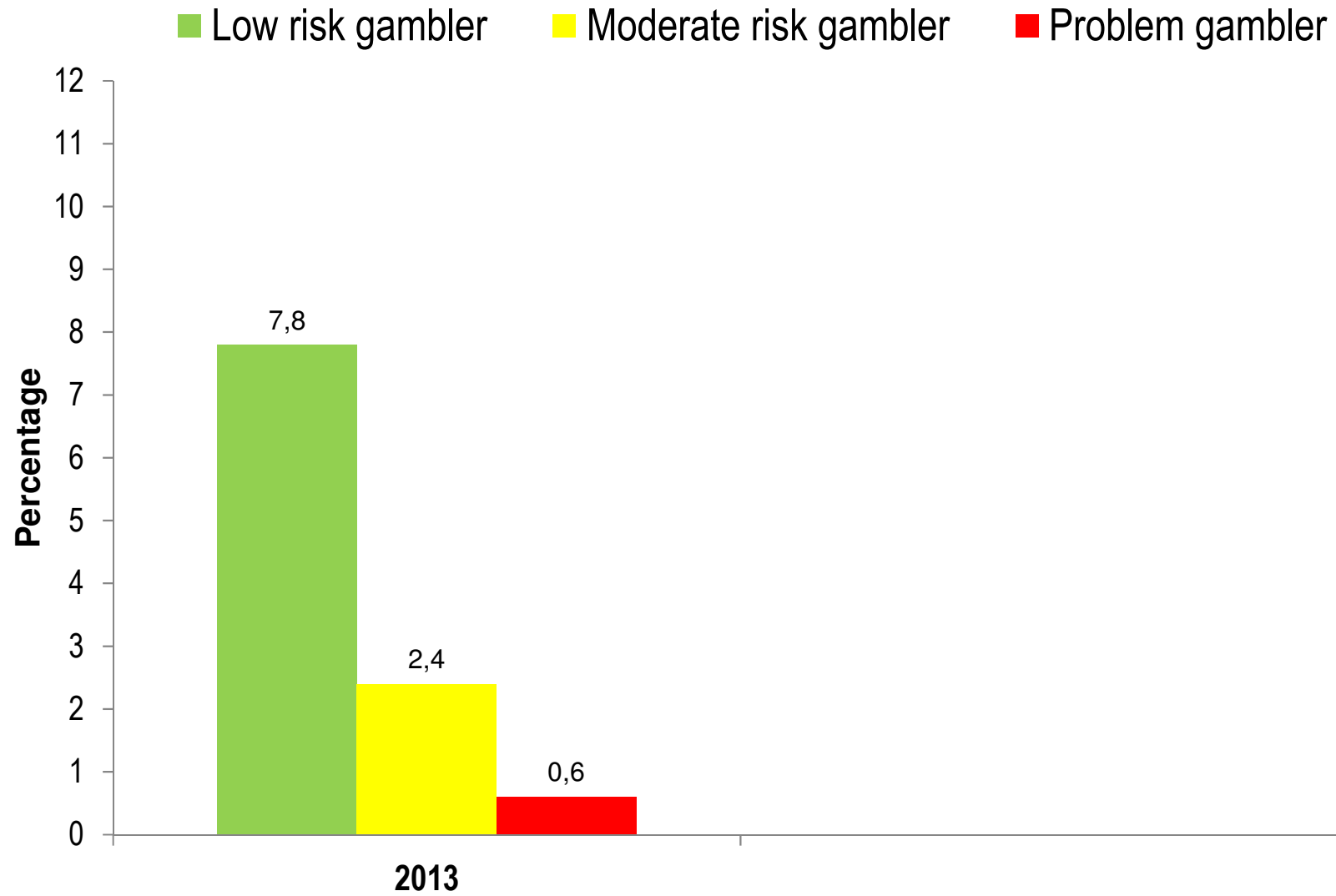
Norway	
N sampling frame	14 000
Sampling frame	Population Registry
Year (comp year)	2015 (2013)
Age	16-74
Sampling	Plain random
Warning letter	YES
Data collection	Postal 2R
Incentives	150 gifts cards of 500 NOK
Response rate	40.8% (n=5845)
Weights	Sex, gender, county
Attrition	Men and young subjects
Gambling Problem Screen	PGSI
Ethical approval	Regional Ethics Committee West (2013/120)

PARTICIPATED IN GAMBLING LAST 12 MONTHS (NORWAY)

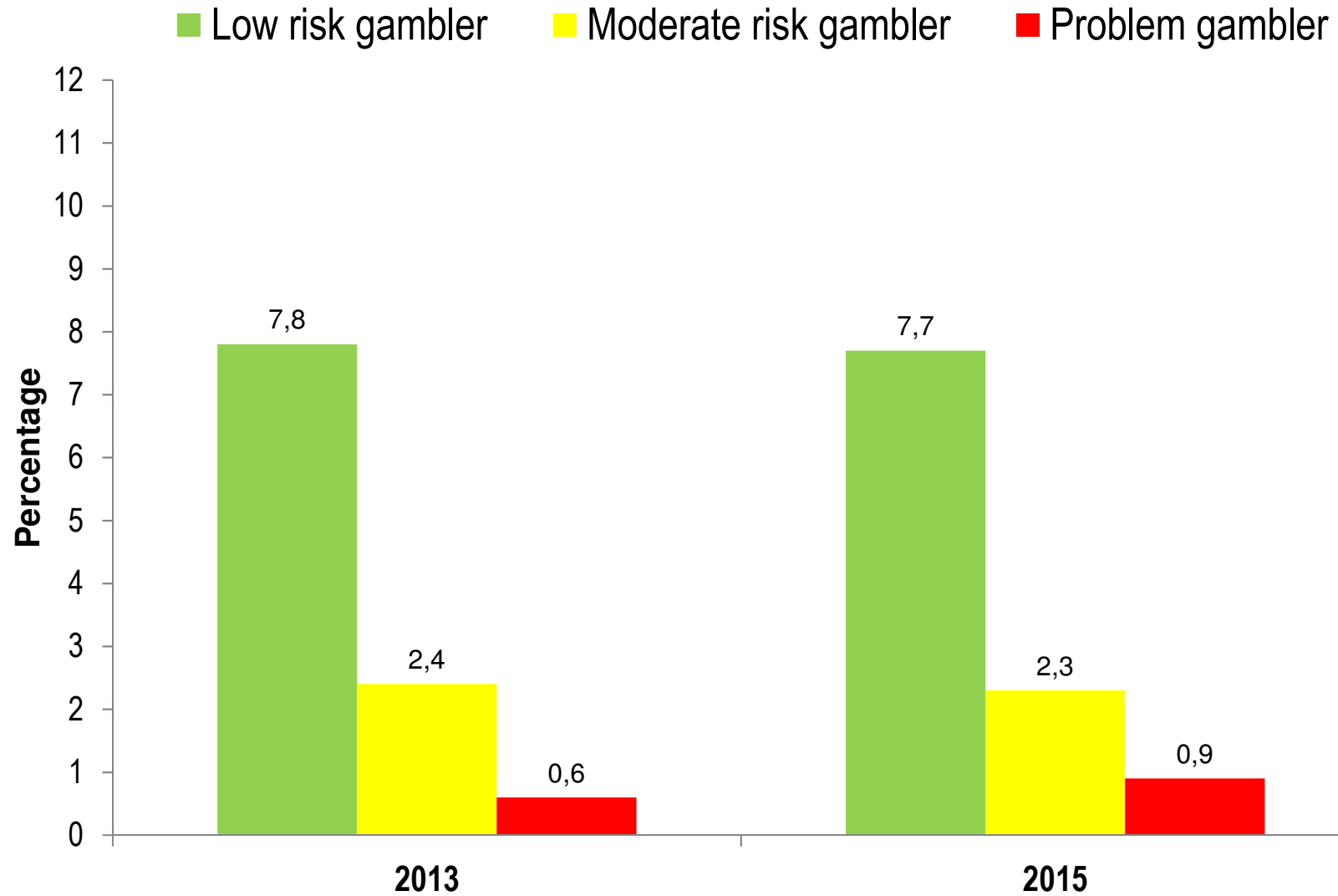


$p > .05$

PREVALENCE OF GAMBLING PROBLEMS (PGSI; NORWAY)



PREVALENCE OF GAMBLING PROBLEMS (PGSI; NORWAY)

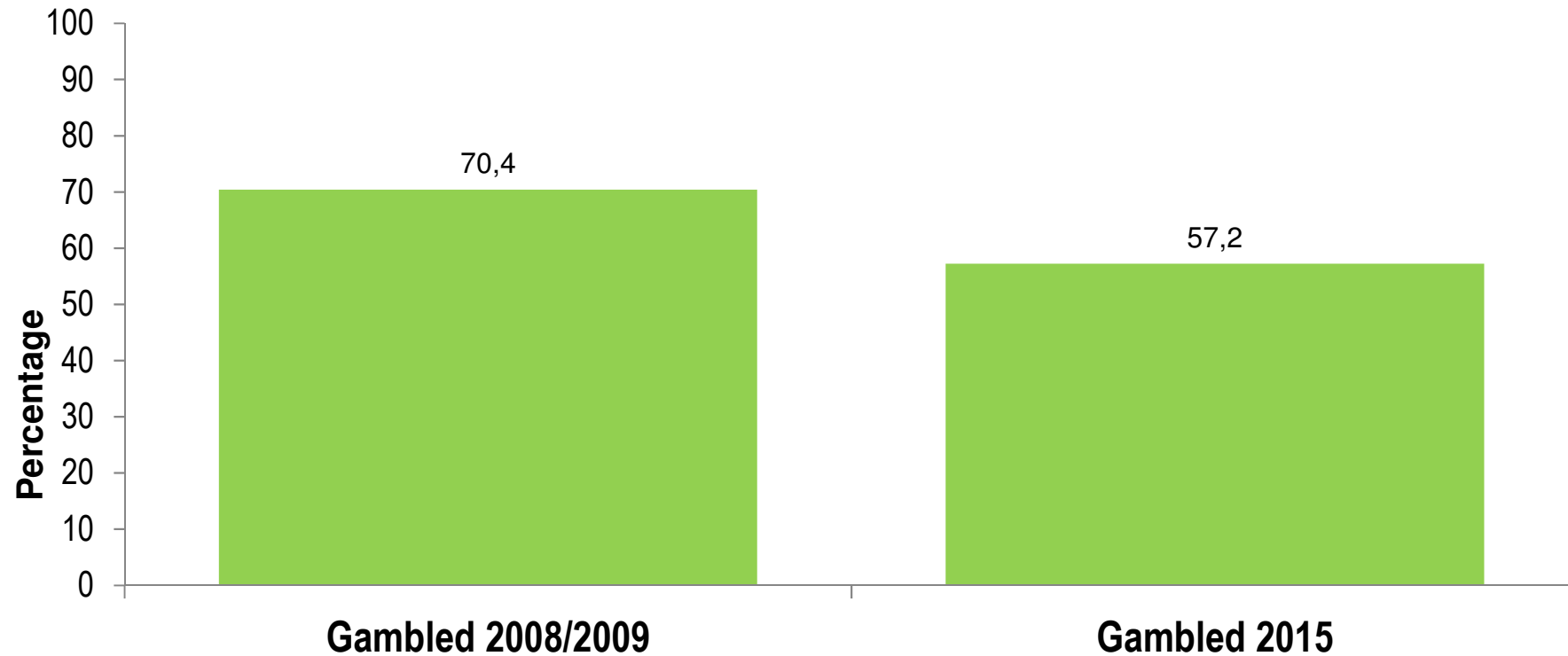


$p > .05$

SWEDEN

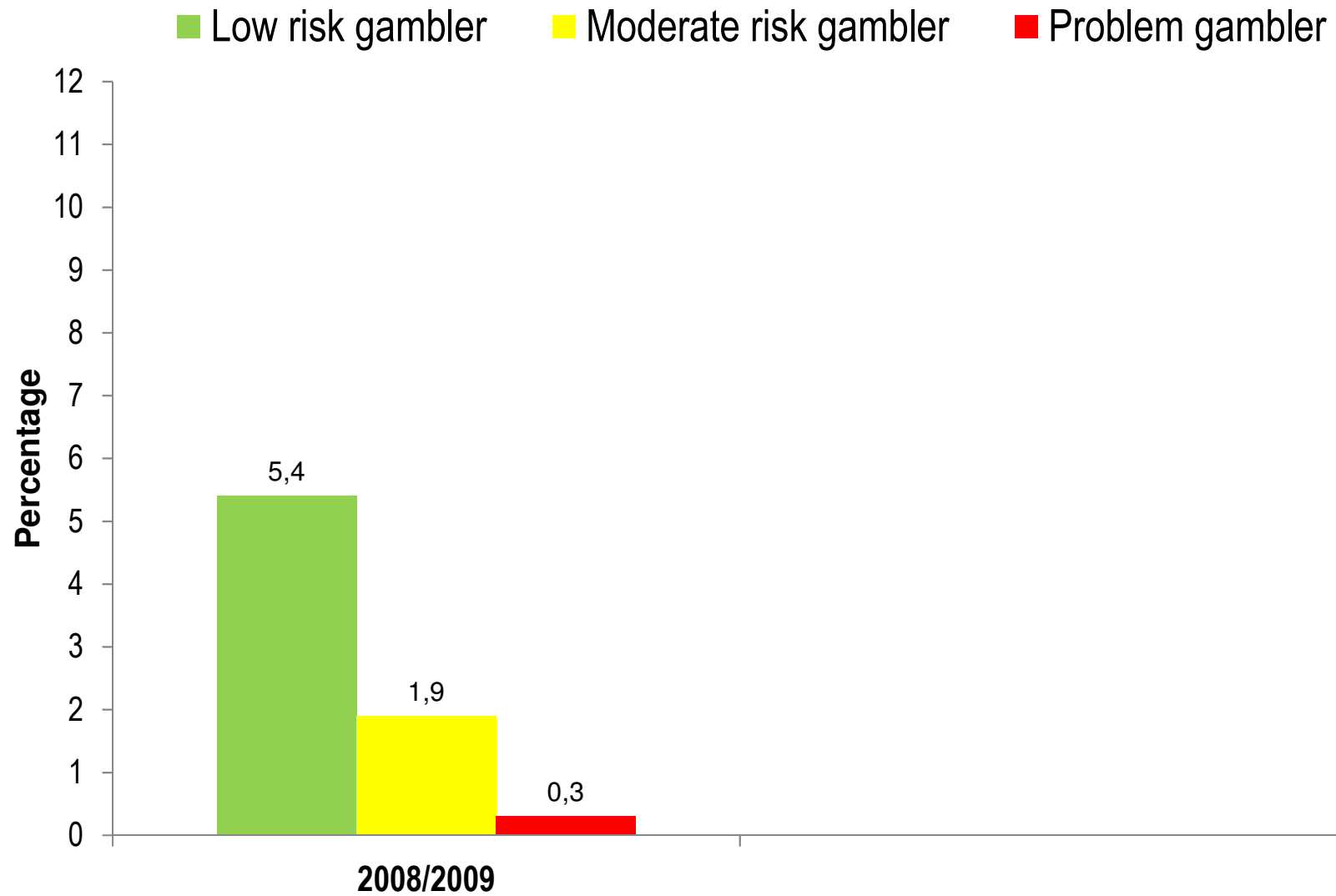
Sweden	
N sampling frame	21 000
Sampling frame	Total population registry
Year (comp year)	2015 (2008/09)
Age	16-84
Sampling	Stratified random (oversampled young, at risk)
Warning letter	YES
Data collection	Phone (75.6%) Postal 2R (18.0%) Web (6.5%)
Incentives	NONE
Response rate	47.5% (n=9420)
Weights	Sex, education, age, land of birth, income, type of family, employment status
Attrition	Men, people with high risk of gambling problems underrepresented
Gambling Problem Screen	PGSI
Ethical approval	Ethical Board Stockholm 2015/1145-31/5

PARTICIPATED IN GAMBLING LAST 12 MONTHS (SWEDEN)

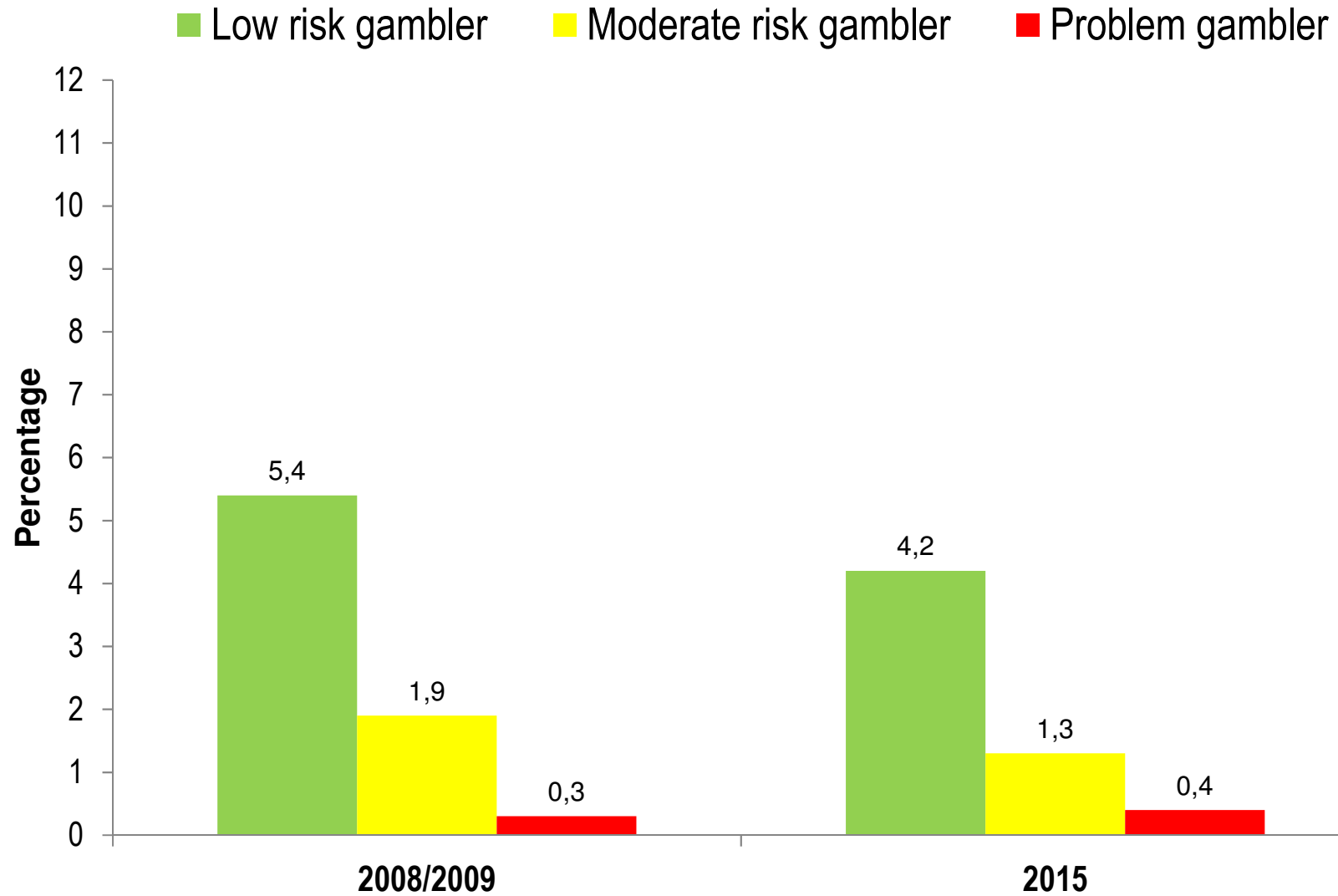


$p < .01$

PREVALENCE OF GAMBLING PROBLEMS (PGSI; SWEDEN)



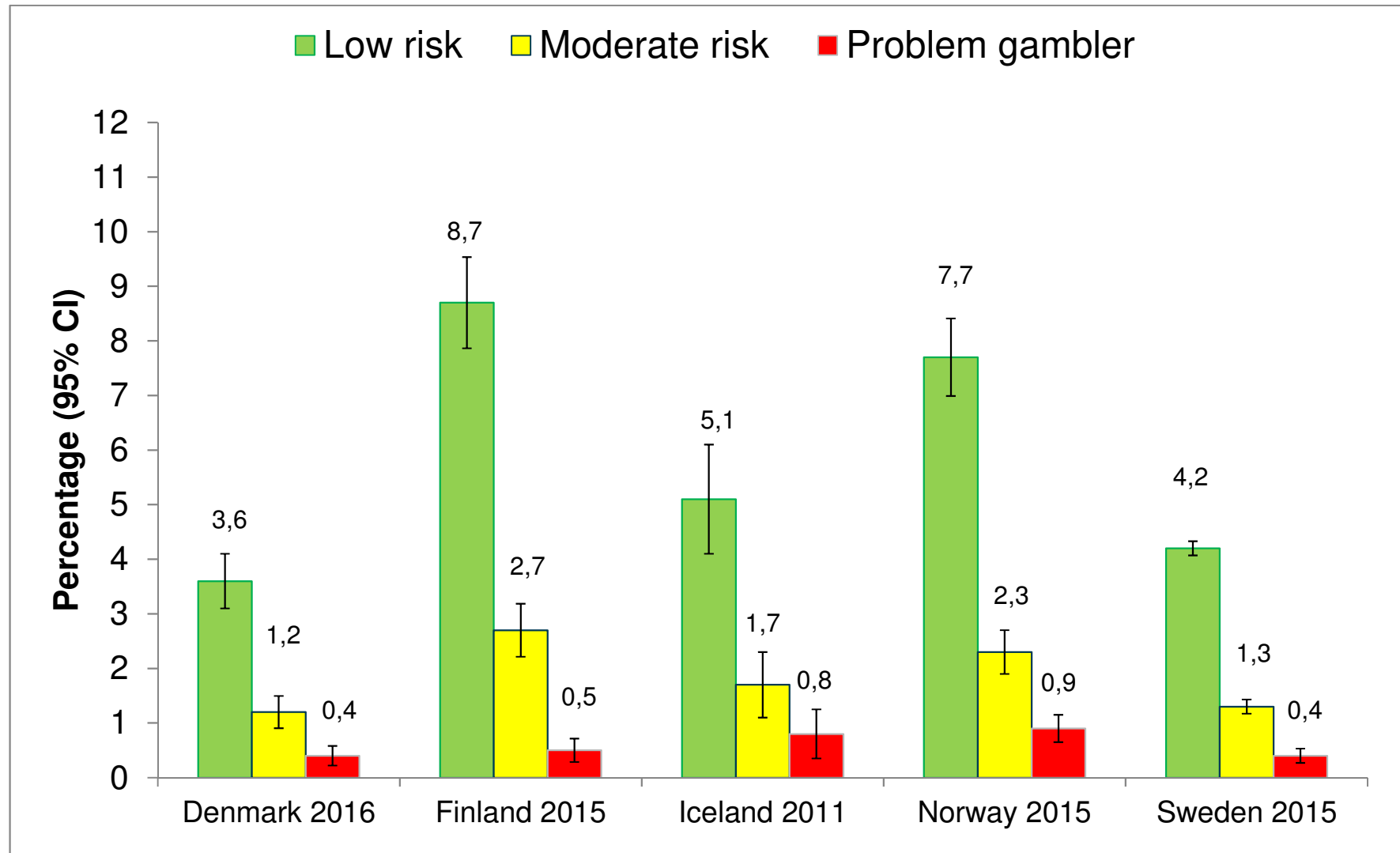
PREVALENCE OF GAMBLING PROBLEMS (PGSI; SWEDEN)



$p < .01$?

PAN-NORDIC COMPARISONS

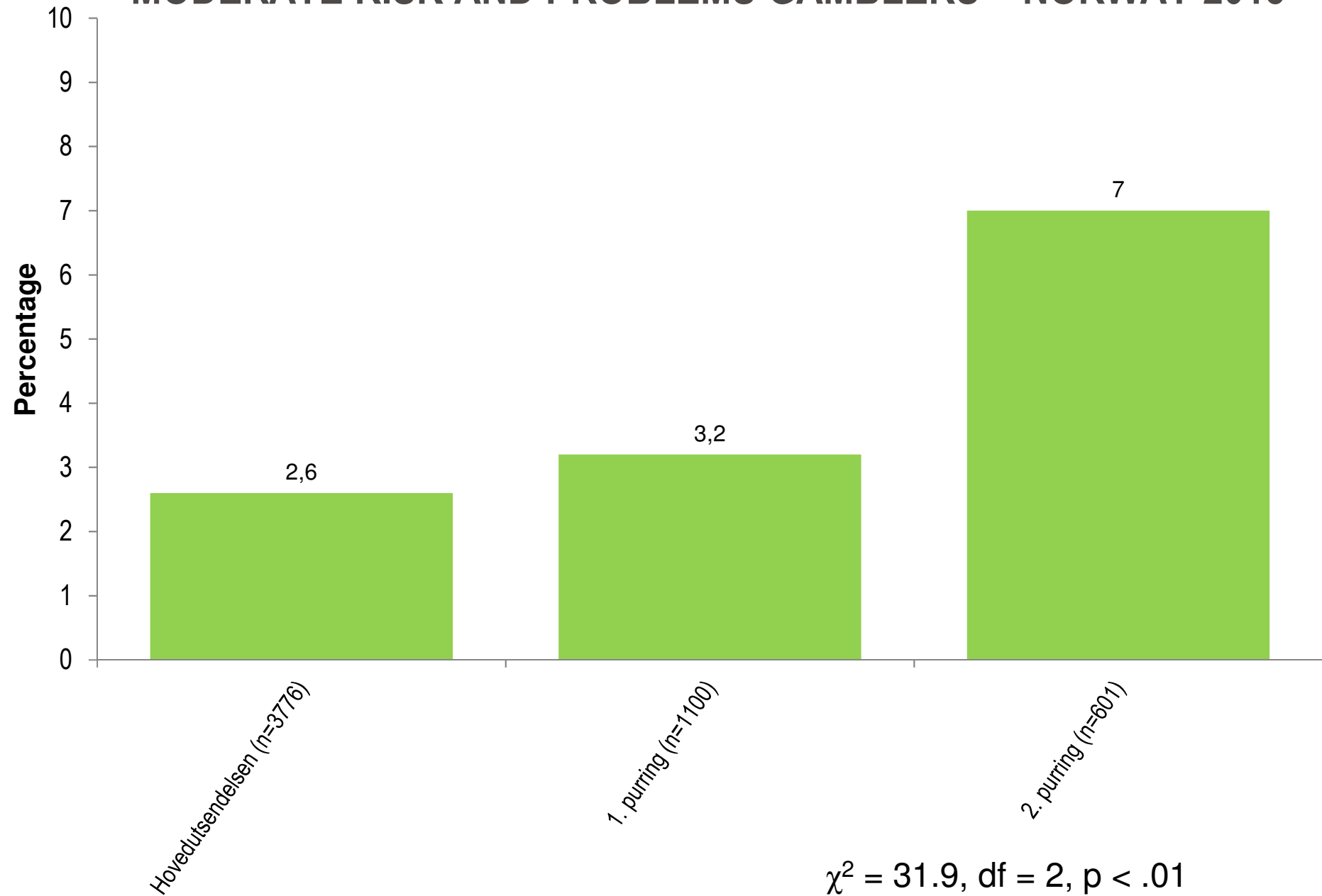
PREVALENCE OF GAMBLING PROBLEMS ACROSS THE NORDIC COUNTRIES (PGSI)



	Denmark	Finland	Iceland	Norway	Sweden
N sampling frame	10 900	7 400	3 227	14 000	21 000
Sampling frame	Civil registration number registry	Population registry	Population registry	Population Registry	Total population registry
Year (comp year)	2016 (2005)	2015 (2011)	2011 (2007)	2015 (2013)	2015 (2008/09)
Age	18-74	15-74	18-70	16-74	16-84
Sampling	Plain random	Plain random	Plain random	Plain random	Stratified random (oversampled young, at risk)
Warning letter	YES	YES	YES	YES	YES
Data collection	Phone 81% Web 19%	Phone CATI	Phone	Postal 2R	Phone (75.6%) Postal 2R (18.0%) Web (6.5%)
Incentives	NONE	3 Apple Ipods	NONE	150 gifts cards of 500 NOK	NONE
Response rate	59.3% (n=6274)	62% (n=4514)	61.8% (n=1887)	40.8% (n=5845)	47.5% (n=9420)
Weights	Age, origin, education, occup. status, income	Sex, age, region	Sex, age, recidence	Sex, gender, county	Sex, education, age, land of birth, income, type of family, employment status
Gambling Problem Screen	PGSI NODS	SOGS PGSI	PGSI	PGSI	PGSI
Ethical approval				Regional Ethics Committee West (2013/120)	Ethical Board Stockholm 2015/1145-31/5

METHODOLOGICAL CONSIDERATIONS

MODERATE RISK AND PROBLEMS GAMBLERS – NORWAY 2015





UNIVERSITETET I BERGEN

Faculty of Psychology/Department of Psychosocial Science