

MEASURING GAMBLING-RELATED HARM

Presented by Prof. Matthew Rockloff

Based on Finding from:

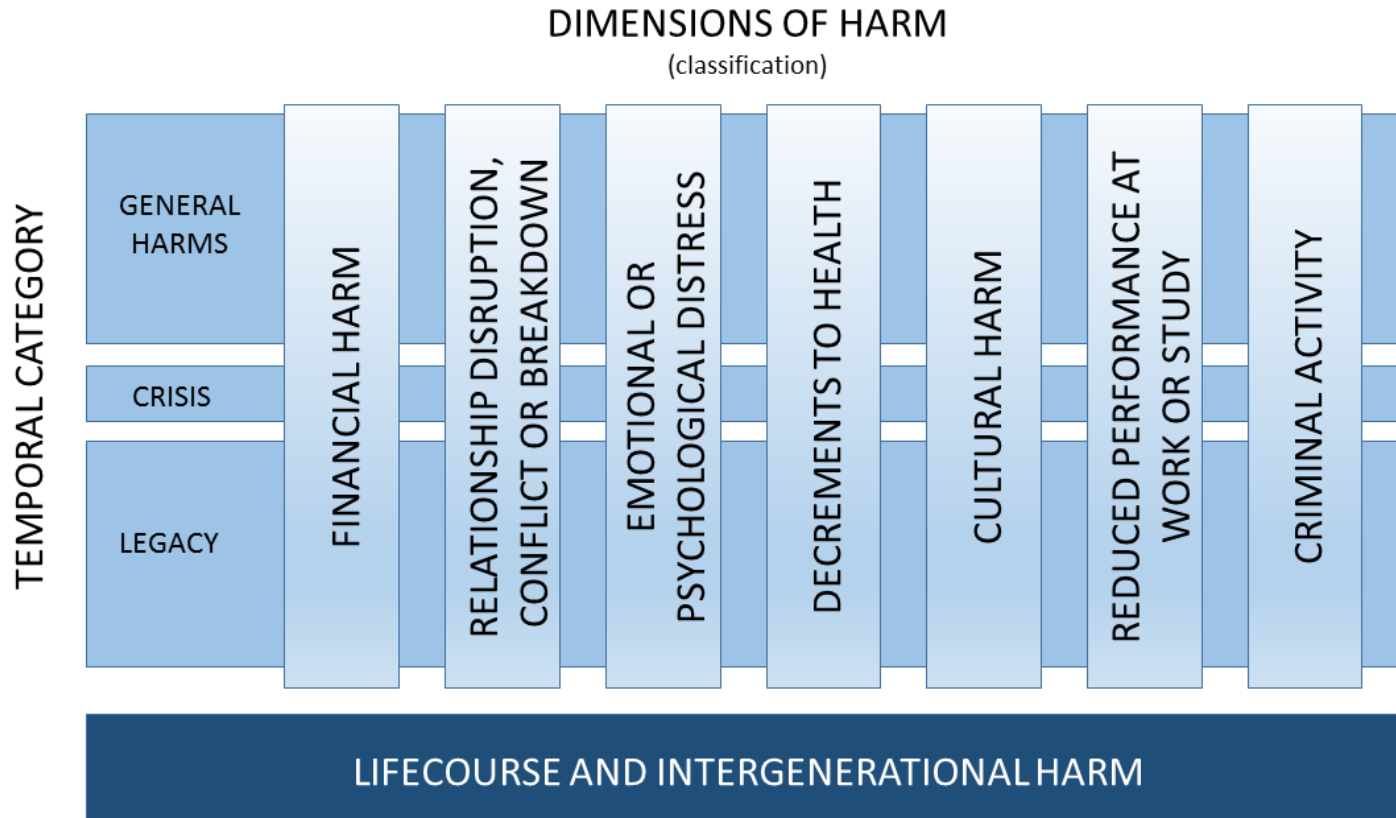
Browne, M, Langham, E, Rawat, V, Greer, N, Li, E, Rose, J, Rockloff, M, Donaldson, P, Thorne, H, Goodwin, B, Bryden, G & Best, T. (2016). Assessing gambling-related harm in Victoria: a public health perspective. Research Report for the Victorian Responsible Gambling Foundation, Melbourne, Victoria.

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DISCLOSURE OF POTENTIAL CONFLICTS OF INTEREST

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CONCEPTUAL FRAMEWORK



THE SYMPTOMS OF HARM

Development of harms checklist

Financial
<ul style="list-style-type: none">• Bankruptcy• Late payments on bills (e.g. utilities, rates)
Work/Study
<ul style="list-style-type: none">• Conflict with my colleagues• Was late for work or study
Health
<ul style="list-style-type: none">• Unhygienic living conditions (living rough, neglected or unclean housing, etc)• Stress related health problems (e.g. high blood pressure, headaches)
Emotional/Psychological
<ul style="list-style-type: none">• Felt worthless• Felt like a failure

Relationship
<ul style="list-style-type: none">• Actual separation or ending a relationship/s• Got less enjoyment from time spent with people I care about
Other
<ul style="list-style-type: none">• Felt less connected to my religious or cultural community• Took money or items from friends or family without asking first

MEASURING GAMBLING HARM

Burden of Disease Approach

- We used ideas from Burden of Disease (BoD) framework.
- BoD measures impact of health states on quantity and quality of life.
- 'Health state utility' (between 0 and 1) summarises total impact on quality of life
 - E.g. alcohol dependence = .55, bipolar affective disorder = .48
- Utility * N persons affected = approximate population impact
- Years of (healthy) life lost in a given year

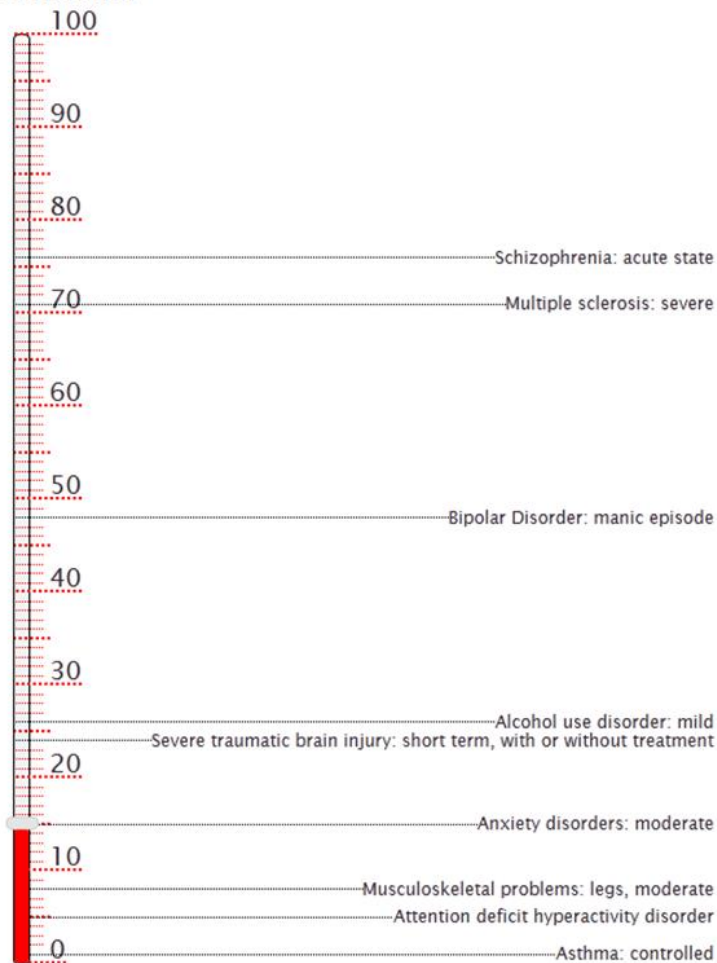
MEASURING GAMBLING HARM

- We need to describe the condition of experiencing gambling harm covering
 - Harms from 'own gambling'
 - Harms to 'affected others'
- Harm utilities (0-1) elicited via:
 - Visual Analogue Scale (VAS)
 - Time Trade-Off (TTO)
- Online methodology
- Sample
 - Experienced gambling harm (gamblers, affected others)
 - General population
 - Experts

Use your mouse or keyboard arrows to move the slider and rate how much you believe experiencing the scenario would impact your quality of life.

Your spouse's gambling is affecting your quality of life. The gambling is making you feel distressed. In your relationships you're experiencing greater tension.

Most Harmful



Least Harmful

Value: **15**

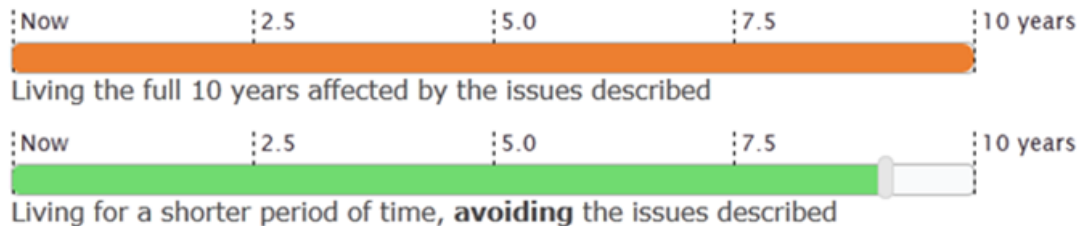
Visual Analogue
Scale (VAS)

Time Trade-Off (TTO)

SCENARIO 1

Adjust the bar until you believe Option B is equivalent to Option A. You can use your mouse or keyboard arrows to adjust the slider, or enter the value in the textbox. You may choose to enter your answer in years, days, or months by using the dropdown menu.

Your spouse's gambling is affecting your quality of life. The gambling is making you feel distressed. In your relationships you're experiencing greater tension.



*Value: **9.00** Years

**Living for this length of time free of the problems described in the scenario above, would have the same worth to me as 10 years of life affected by those issues.*

BURDEN OF GAMBLING HARM STUDY

Gambling Harm Descriptions

- 798 gambling harm descriptions (vignettes) randomly sampled from national gambling harms survey
- Intent to capture diversity in the experience of harm
- Generated algorithmically
 - Two groups: gamblers and affect others
 - Each participant responded to 6 vignettes

Vignette group	Problem Gambling Severity				Total
	Non-Problem	Low-Risk	Moderate-Risk	Problem	
Own gambling	47	104	200	200	551
Affected others	18	29	100	100	247
Total	65	133	300	300	798

BURDEN OF GAMBLING HARMS STUDY

Gambling Harm Descriptions

- Example vignette for harms from own gambling ('Own gambling' group)

Your gambling is affecting your quality of life. The gambling is making you feel regretful. You spend less recreationally (e.g. movies, eating out) and are late on bill payments. Additionally, you have reduced your spending on essential items (e.g. medication, food). You are losing sleep due to spending time gambling. You are eating too much and drinking more alcohol. You spend less time with the people you care about. In your relationships you're experiencing greater conflict. You neglect your relationship responsibilities. Additionally, in your work/study you use this time to gamble.

(A1003, PGSI = 6, $z = -0.01$)

BURDEN OF GAMBLING HARMS STUDY

Sampling

- Participants (n=786)
 - National online panel sample invited: Gamblers, affected others, general population
 - 'Experts' - professional experience with persons experiencing gambling harms/affected by another (e.g. counsellors and support workers). List obtained by VRFG and invited via email by CQU.

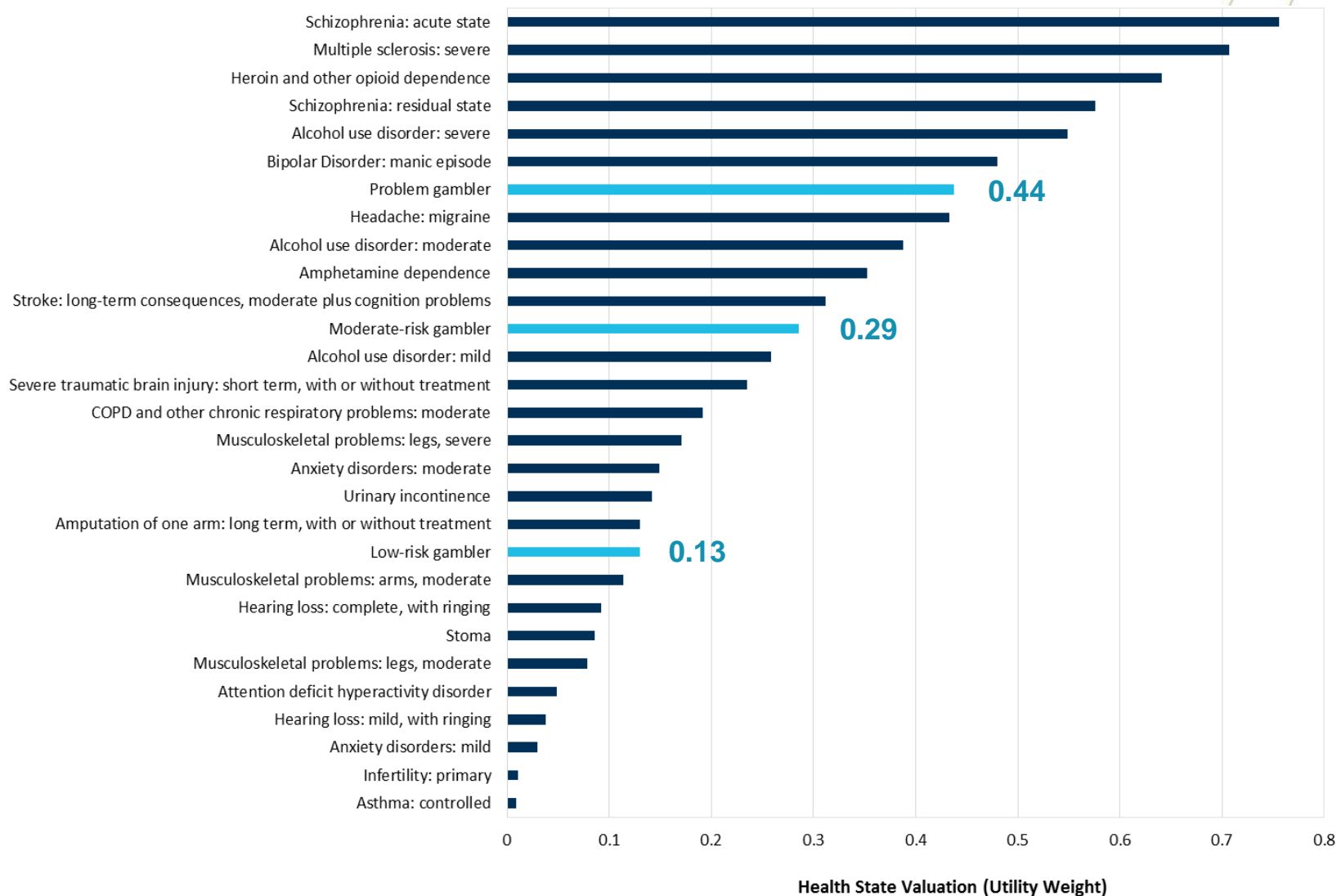
Participant Type	Vignette Group		Total
	Own Gambling	Affected Other	
Gamblers	124	128	252
Affected Others	115	123	238
General population	123	122	245
Expert	29	22	51
Total	391	395	786

ANALYSIS

- In total, 9,432 utility evaluations were elicited from 786 participants (735 general population, 51 experts)
- We modelled utility (monotone reg. / logit transformed) as function of
 - PGSI
 - + 'nuisance' variables (e.g. respondent category, protocol)
- Harms for PGSI score of 0 excluded from analysis
- Harm to others analysed separately from harm to self



RESULTS: HOW DOES GAMBLING PROBLEMS COMPARE TO OTHER CONDITIONS?



ASSESSING POPULATION LEVEL HARM FROM GAMBLING IN VICTORIA

CALCULATING QALY₁ – ANNUAL YEARS OF LIFE LOST TO DISABILITY (YLD₁)

- Aim: Quantify gambling harm per year using a QALY1 approach – the aggregate years of healthy life lost each year due to gambling in the Victorian adult population (YLD1).

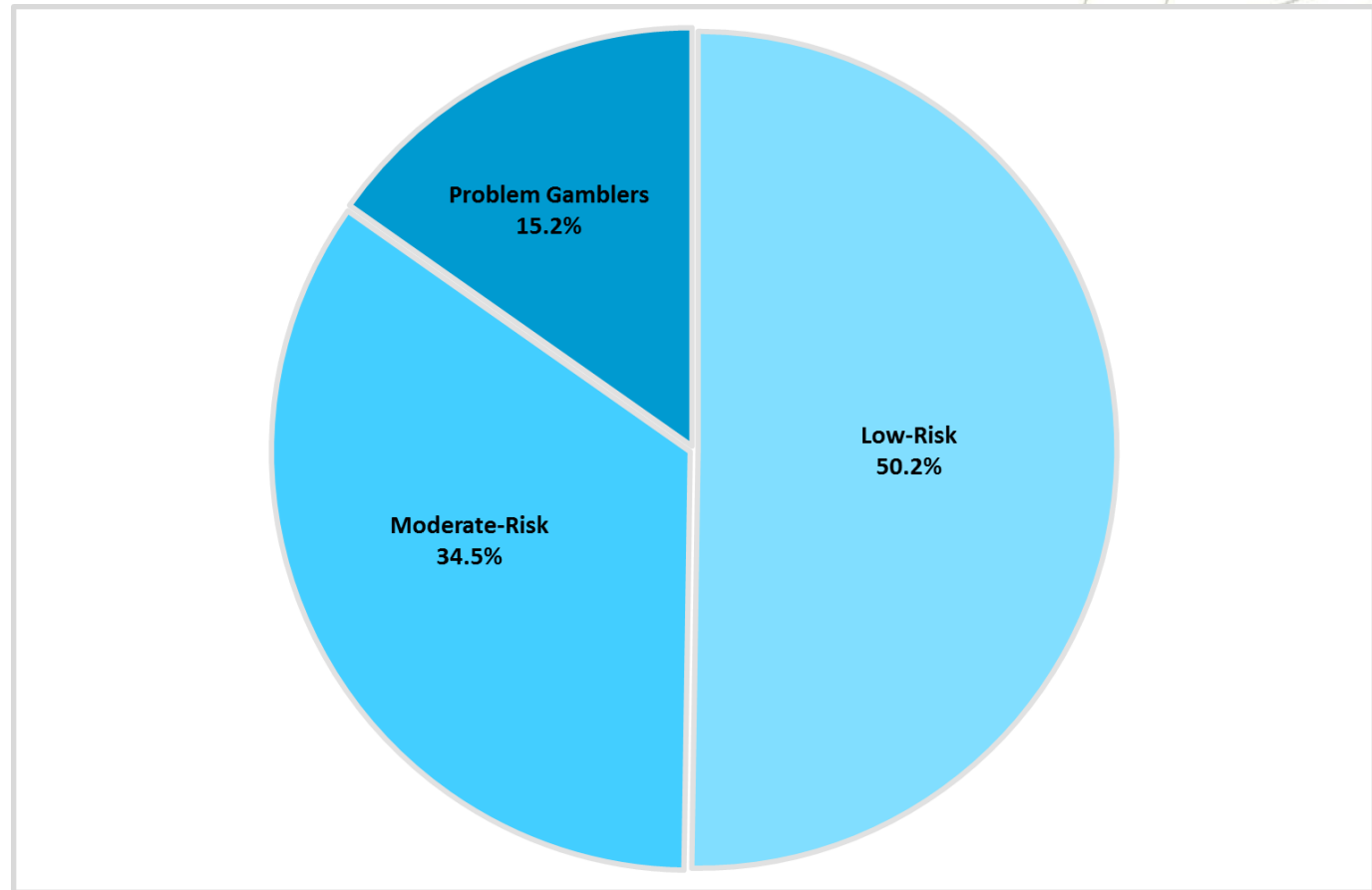
$$\text{YLD}_1 = \text{Victorian Adult Population} \times \text{Annual Prevalence for Health State (\%)} \times \text{Utility Weight of Health State}$$

- Approach based on Global Burden of Disease Studies (e.g. Murray & Lopez, 1996; Salomon et al., 2013) and the Victorian Burden of Disease 2001 Study (Department of Health & Human Services, 2005).

RESULTS

QALY₁ YLD₁ – Own Gambling Harms by PGSI Category

- Aggregate years of healthy life lost annually (QALY₁ YLD₁) in Victorian adult population = **97,877 years**
 - Low-Risk = 49,173 years
 - Moderate-Risk = 33,788 years
 - Problem Gambler = 14,916 years



Proportion of harm in Victorian population by PGSI risk category

SHORT HARMS

Category	Item	PR (%)	FN (%)	STC (r)	ITC (r)
Financial	1. Reduction of my available spending money	22.3	24.0	.613	.613
Financial	2. Reduction of my savings	18.0	17.1	.737	.598
Financial	3. Less spending on recreational expenses such as eating out, going to movies or other entertainment.	15.0	13.3	.794	.530
Emo/Psy	4. Had regrets that made me feel sorry about my gambling	11.8	10.8	.828	.478
Emo/Psy	5. Felt ashamed of my gambling	13.2	8.7	.862	.532
Financial	6. Sold personal items	6.4	7.5	.887	.383
Financial	7. Increased credit card debt	9.3	6.6	.905	.450
Relationships	8. Spent less time with people I care about	10.5	5.8	.917	.497
Emo/Psy	9. Felt distressed about my gambling	10.3	5.3	.924	.495
Emo/Psy	10. Felt like a failure	10.2	4.8	.935	.511

Notes: PR = Percent positive responses; PFN = False negatives (incremental); STC = Subscale to 72-Item Total Correlation (Spearman); ITC = Item 72-Item Total Correlation.

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