

# **Quantifying the Harms of Internet Gambling Relative to Other Gambling Products**

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## **Abstract**

This paper is a discussion of the ways the relative harms of the recreational use of various drugs have been assessed and how these methods might contribute to a consideration of the relative harmfulness of gambling modes. This is significant as the gambling area is seeing the introduction of a new gambling access mode for a large range of gambling products- that is internet accessed or remote accessed gambling and legitimate concerns have been raised about the likely harmfulness of this type of gambling.

The term Internet Gambling potentially refers to remote access to the full range gambling products, however in this discussion internet gambling is confined to remote access to gambling on Poker, Casino games and Pokies. Gambling Harms are inferred from the numbers of clients presenting to treatment services relative to numbers participating each gambling product and by two separate measures of the money spent on gambling per participating gambler. Using this method to rate gambling products into a gambling equivalent of the drug ABC harms hierarchy, gambling machines and internet gambling on poker and casino products would be in category A, Casino tables would be in category B, TAB/Sports Betting would be in category C and Lotteries products would probably not be categorised.

Finally the implications of a hierarchy of gambling harms on public policy are discussed in the context of the recently released International Public Health Alliance on Gambling paper on Internet Gambling.

## **Biography**

Philip Townshend is a Clinical Psychologist living in Nelson who has worked clinically in addictions for many years and in most areas of NZ, and in the gambling area since 1998. He has published a number of papers in addictions and gambling, was a producer of a DVD for problem gamblers, and wrote an interventions manual for PGF counsellors. He has also been published in Boating NZ and the Ulysses Magazine.

The phrase “Machine gambling, be it Slots, Pokies or VGM’s is the crack cocaine of gambling” has been reported in media discussions of gambling over many years. This phrase implies that drugs can be placed on a hierarchy of harmfulness with Crack at the most harmful end. It also implies that gambling modes could be placed on a similar hierarchy and that machine gambling is a relatively more harmful gambling mode.

Before categorising gambling by harmfulness its worth exploring some of the issues that have emerged with the development of hierarchies of harm for Drugs. The rationale for classifying drugs according to their relative harmfulness is that a scientifically based scale might allow for a legislative and public policy response that reflects their potential harms, for public awareness campaigns to be based on accurate information that reflects the experience of users, and for the enforcement response to illegal drugs to be targeted at the areas of greatest advantage to society.

The advantages of classifying gambling modes on the basis of harm may include introducing precision into gambling discussions where presently the term gambling is often used as though it refers to a single entity rather than a range very different gambling modes. Classifying gambling modes may also assist in differentiating these modes and assist in the development of unique policy responses to gambling in the ways envisaged for drugs.

### **Hierarchies of Drug Harms**

Achieving a hierarchy of harms in the drug area has not been simple, many jurisdictions developed systems of drug classification as a result of the UN (Single Convention on the Narcotic Drugs 1961)<sup>1</sup> and the Convention on Psychotropic Substances (ratified in 1971)<sup>2</sup>. In NZ, Canada and the UK and other jurisdictions an ABC system of drug classification is used in which the most harmful drugs are in category A with the least harmful in category C.

This method of classification has been roundly criticised in the UK where the House of Commons Science and Technology 5<sup>th</sup> Report 2006 described the system as “not fit for purpose”. However despite the difficulty defining drug harms and comparing relative types of harms, the same report and the majority of public policy groups that have investigated this, have agreed that a classification of drugs into some kind of hierarchy of harms is a worthwhile goal and that doing this might provide guidance on the optimum policy response to a drug before the use of it and the harms associated with it became widespread. That is a classification system might have preventative value.

A report by the NZ Law Commission- Controlling and Regulating drugs 2010<sup>3</sup> identified the linking of a drugs classification in the ABC system to judicial responses in sentencing as half the problem with this system, as there is no evidence for the efficacy of this link. The other half of the problem is the difficulty in agreeing on an

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<sup>1</sup> Available at [www.unodc.org/unodc/en/treaties/single-convention.html](http://www.unodc.org/unodc/en/treaties/single-convention.html)

<sup>2</sup> [www.incb.org/pdf/e/conv/convention\\_1971\\_en.pdf](http://www.incb.org/pdf/e/conv/convention_1971_en.pdf)

<sup>3</sup> Available at <http://www.lawcom.govt.nz/ProjectIssuesPaper.aspx?ProjectID=143>

empirical definition of drug harms and comparing different types of harms on a single harm scale.

This second problem, that is, developing a single scale of harms, was addressed by Nutt et al 2007<sup>4</sup> with the development a Drugs Matrix of Harms in which drugs were rated on a 4 point scale on 9 criteria of harmfulness divided into three categories:

- physical harms
- the likelihood of dependence and
- Social harms.

### **Developing a Hierarchy of Gambling Harms**

In the area of gambling we have some advantages over our counterparts in the drug area as we are not comparing disparate physical harms that may be slow to develop, and don't have a variety of toxicological harms to deal with. This means in applying Nutt's Matrix model we would only have to compare the likelihood of dependence and the social harms of gambling modes.

In the following discussion two of many possible methods of developing a hierarchy of harms for modes of gambling are considered though there are undoubtedly other ways of doing this and the ideal method would be one that, like the matrix model combined a variety of methods.

In NZ there are good data on the levels of participation in various gambling modes and on the primary gambling mode of people presenting to treatment services. The data on participation are available from a series of surveys commissioned by the Department of Internal Affairs over a ten year period as well as single studies by other agencies, the most recent being the Assessment of the Social Impacts of Gambling in New Zealand (2008) by the Centre for Social and Health Outcomes Research and Evaluation study by Massey University, the (SHORE) Study<sup>5</sup>. The data on primary gambling modes for people presenting to treatment are published annually by the Ministry of Health<sup>6</sup>.

Internet gambling is a mode of access to gambling rather than a mode of gambling however in the SHORE study Internet Gambling refers internet access to gambling primarily on Pokier and Casino sites and this definition is used through the rest of this discussion.

From the numbers of people participating in various types of gambling and the numbers presenting for treatment it's possible to establish how many people gamble in a particular mode in order to generate one presentation for treatment. These data for 07 are shown in the following table.

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<sup>4</sup> David Nutt and others "Development of a Rational Scale to Assess the Harms of Drugs of Potential Misuse" 2007 369 Lancet 1047

<sup>5</sup> Available at [http://www.moh.govt.nz/moh.nsf/pagesmh/8472/\\$File/social-impacts-gambling-nz08.pdf](http://www.moh.govt.nz/moh.nsf/pagesmh/8472/$File/social-impacts-gambling-nz08.pdf)

<sup>6</sup> Available at <http://www.moh.govt.nz/moh.nsf/indexmh/problemgambling-userdata>

**Table 1**  
**The number of problem Gambler Presentations per Participating Gambler in New Zealand 2007**

<b>Gambling Mode Data from the 07 era</b>	<b>Individuals who Participate (number of Gamblers participating in the last year)</b>	<b>Primary Mode Presentations to Treatment</b>	<b>Treatment Presentations per Participating Gambler</b>
<b>Lottery Products</b>	1,617,000	21	1:77,000
<b>Casino machines</b>	255,000	176	1:1448
<b>Non Casino Machines</b>	240,000	1211	1:198
<b>TAB-Track</b>	231,000	116	1:1991
<b>Casino Tables</b>	102,000	183	1:557
<b>Internet</b>	18,000	103	1:174
<b>Other</b>	249000	unknown	unknown

This table shows that Lottery product are the most widely used and internet the least used gambling mode and that non casino machine gambling is the mode associated with most presentations to treatment. Using lotteries products as a standard for harm and presentation to treatment as harm indicator we can determine relative harmfulness of these products

The following table shows this in order from least to most harmful product.

**Table 2**  
**The Relative Harmfulness of Gambling Modes on the Basis of relative Risk of Provoking a Presentation to Treatment**

<b>Gambling Mode</b>	<b>Times Harmful compared to Lotteries Products on Basis of Presentation to Treatment Rates</b>
<b>Lottery Products</b>	1
<b>TAB</b>	38.7
<b>Casino Machines</b>	53.2
<b>Casino Tables</b>	138.2
<b>Non Casino Machines</b>	389
<b>Internet</b>	443

On this basis internet gambling is 443 times, non casino machines are 389 times, casino tables are 138 times, casino machines are 53 times and TAB products are 38 times as harmful as Lottery products.

Based the likelihood of a gambler presenting to treatment services, Lottery products might not be on an ABC classification system, TAB and casino tables might be Class C, casino machines might be class B and non casino machines and internet might be Class A products.

So far both machine gambling and internet gambling look like the crack cocaine of gambling.

Another way of arranging gambling modes on a hierarchy of harm, or in Nutt's terms another criterion for determining harmfulness, might be the amount of money an average gambler losses on a particular mode of gambling over the course of a year. Money lost is not as closely tied to gambling harm as presentations to treatment. However given that many gambling harms, for example 4 of the 10 DSM4 criteria of Pathological Gambling, are associated with money lost, this might an indicator of harm worth exploring.

There are difficulties assessing money lost by internet gamblers, it's hard to find a sample that's not self selected and data that's not self report. To find if there are other kinds of data on internet gambling loses that may be available the major trading banks in NZ were contacted in 09 and asked for anonymous information on the internet gambling transactions of their customers. Two banks responded with the data in Table 3. These data are not high quality and are introduced here in order to show that this kind of information is available and as its neither self selected nor self report may be worth collecting in a more systematic way.

These figures are not individual wagers; they represent payments into the gamblers gambling accounts. The gamblers wins would also be paid into these accounts and so it's likely these numbers represent the net loses of the banks internet gambling customers.

**Table 3**  
**Internet Banking Data from 2 of 6 Major NZ Banks**

<b>Number of Customers</b>	932
<b>Number of Transactions</b>	6165
<b>Total Value</b>	\$1,371,188
<b>Transactions per Customer</b>	4.12-7.52
<b>Average Transaction Value</b>	\$222
<b>Annualised Spend per Customer</b>	\$1692-1851

For other gambling modes the easiest but crudest way to assess net losses is by attributing the total gambling loss in a year to the total number of participating gamblers. Like all average figures this loses any subtlety that data may contain but it does have the advantage of being both very objective and complete.

Table 4 shows the losses per gambler on each gambling mode for New Zealanders in 07.

**Table 4**  
**Loss per Participating Gambler per Year for the 07 Year**

<b>Gambling Mode</b>	<b>Average Loss per year \$</b>
<b>Lottery Products</b>	249
<b>TAB</b>	1164
<b>Casino Machines</b>	1093
<b>Casino Tables</b>	546
<b>Non Casino Machines</b>	3704
<b>Internet</b>	1692-1851

Table 5 combines the relative harmfulness of gambling modes based on the gambler presentations to treatment from Table 2 and on the losses per gambler per year from Table 4.

**Table 5**  
**Relative Harm of Gambling Modes on the basis of Presentations to Treatment and Gamblers Losses**

<b>Gambling Mode</b>	<b>Relative Harm compared to Lotteries Products on Basis of Presentation to Treatment Rates</b>	<b>Relative Harm on the Basis of Loss per Gambler</b>
<b>Lottery Products</b>	1	1
<b>TAB</b>	38.7	4.7
<b>Casino Machines</b>	53.2	4.4
<b>Casino Tables</b>	138.2	2.1
<b>Non Casino Machines</b>	389	14.9
<b>Internet</b>	443	6.8

On basis money lost per gambler TAB and Casino Machines are over 4 times more harmful than Lottery products, internet 6-7 times as harmful and Non Casino machines nearly 15 times more harmful than lottery products.

Combining these two ways of assessing harm on an ABC model, gambling machines and internet gambling on poker and casino products would be in category A, Casino tables would be in category B and TAB in category C. Lotteries would probably not be categorised. On the basis of these data the internet seems to be less harmful than NCGM but both these gambling modes are much more harmful than all other gambling modes and on this basis perhaps it is true that both internet and machine gambling are the crack cocaine of gambling.

In this discussion the probability of presenting for treatment and gambling losses have been used as possible indicators of harm though each has weaknesses and other indicators could be used. For example the association of particular gambling modes with crime or even time spent gambling might add to the assessment of relative harm and some data exist on these. The SHORE report collected information on involvement in crime and reported that respondents who were in the high participation group of gamblers and those gambling on Non Casino Gaming Machines were significantly more likely to be involved in crime  $p=.011$  than people in the non gambling group. However the relative risk of crime by gambling modes was not reported.

Although the drug harms inferred from high level data relating problems users of that drug have compared to users of other drugs there is no assumption or expectation that drug users use one drug exclusively. This is similar to the situation in gambling where users of gambling products are likely to use multiple products and assessing relative harms does not assume exclusive use of any particular gambling mode. However the relative harms of gambling products will be confined to the jurisdiction in which the data were collected as the local rules around advertising, speed of play, return to player ratio and prize size will affect the relative harmfulness of gambling

modes. These findings are broadly inline with those of Griffiths and Wardle (2009)<sup>7</sup> who on the basis of the 2007 British Gambling Survey suggested that “the introduction of internet gambling may lead to increased problematic gambling behaviour” and Wood et al (2007)<sup>8</sup> who found results suggesting that internet gambling may be more harmful than other modes.

In conclusion the categorisation of gambling modes on the basis of harms may be possible and may assist in determining the policy response to various forms of gambling. If this were done its likely that in New Zealand internet gambling and non casino machine gambling would be in the most harmful category requiring the strongest response from legislators and regulators.

This contrasts to the situation in many jurisdictions that are currently liberalising their response to internet gambling. The Australian Productivity Commission in its updated report on Gambling this year recommended the development of an Australian internet gambling industry on the basis that “prohibition” doesn’t work and Australians would be better served by having access to home grown internet gambling providers who could be regulated and responsible, and incidentally allow for some of the money lost to remain in Australia. This argument is reflected in the Canadian government’s moves into internet gambling, the UK gambling policy and various jurisdictions in the EU. However regarding internet gambling as at the harmful end of a hierarchy of gambling modes would suggest a more cautious policy response.

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<sup>7</sup> M Giffiths, H Wardle, J Orford, K Spronston, B Erens. Sociodemographic correlates of internet gambling: Findings from the 2007 British Gambling Prevalence Study. *CyberPsychology and Behaviour*. April 2009, 12(2): 199-202

<sup>8</sup> R Wood, R Williams, P Lawton. Why do Internet gamblers prefer online verses land-based venues? Some preliminary findings and implications. *Journal of Gambling Issues* 2007, 20: 236