

LOTTERIES LITERATURE REVIEW

FINAL REPORT

January 2008

Prepared for:

New Zealand Lotteries Commission
PO Box 3145
Wellington
New Zealand

Authors:

Dr Maria Bellringer
Professor Max Abbott

ACKNOWLEDGEMENTS

This report has been prepared by the Gambling Research Centre, National Institute for Public Health and Mental Health Research, Division of Public Health and Psychosocial Studies, Faculty of Health and Environmental Sciences, Auckland University of Technology, Private Bag 92006, Auckland 1142, New Zealand.

The authors gratefully acknowledge the input of Rebecca Coombes, research officer within the National Institute for Public Health and Mental Health Research, who was responsible for a majority of the literature searches. The authors also thank Marlene Meissner of the Oregon Lottery for provision of useful corporate and marketing information regarding social responsibility as well as several articles relating to gambling and problem gambling in Oregon.

The project was commissioned and funded by the New Zealand Lotteries Commission.

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EXECUTIVE SUMMARY

This report provides an overview of available literature relating to lotteries products, based on five specific question areas of focus:

- To what extent do lotteries products in general and New Zealand lotteries products in particular appeal to problem and under-age gamblers? Do some products appeal more than others and, if so, can this be described?
- What policies, programmes, codes of practice and corporate social responsibility guidelines have other lotteries adopted and is there any evidence about the impact these have had on problem and under-age gamblers?
- What other lotteries have made existing or new products available on the internet or via electronic media and what impact, if any, have these had on problem and under-age gambling?
- What is the role of lotteries marketing in shaping people's views on participating in lotteries and about gambling in general?
- What education programmes or materials have been developed to educate gamblers about responsible gambling and are there examples of 'good practice' in this area?

The review was commissioned by the New Zealand Lotteries Commission in order that research gaps could be identified and recommendations made for research that the New Zealand Lotteries Commission could potentially contract.

The review consisted of an extensive search of library and other electronic databases, personal specialist collections and grey literature. Professional and personal networks were also drawn on to locate unpublished reports and more especially, organisational documents relating to social responsibility and/or educational programmes and materials that might otherwise not have been easily accessible via the public domain. Relevant documentation was accessed and critically reviewed.

Background and contextual information is provided in Chapter 1. Chapter 2 outlines the methodology used. The literature review (Chapter 3) comprises the main body of the report and is followed by the conclusion (Chapter 4), identified research gaps (Chapter 5) and recommendations for research (Chapter 6).

Key points from the review follow, grouped under the five questions areas of focus.

To what extent do lotteries products in general and New Zealand lotteries products in particular appeal to problem and under-age gamblers? Do some products appeal more than others and, if so, can this be described?

- Lottery products appear to have high appeal to most sectors of the population due to a variety of factors that include easy availability and accessibility, low cost to play with a potential to win large amounts of money, structural characteristics of the games and a general public acceptance of lottery games as being a 'lesser' or more 'socially acceptable' form of gambling.
- A majority of adults in countries where lotteries are available seem to partake in lottery gambling, at least to some extent. Weekly/twice-weekly lottery draws appear to be the most popular form of lottery product gambling followed by

scratchcards. Keno appears to be a much less popular form with surveys and studies generally revealing only a few percent of participants partaking in this form.

- A distinction needs to be made between weekly/twice-weekly lottery draws which are a non-continuous form of gambling and scratchcards which can be described as a continuous form of gambling. People who regularly participate in continuous forms of gambling have been shown to be significantly more likely to develop problem gambling behaviours.
- There is no research evidence that weekly or twice-weekly lotteries is associated with problem gambling amongst the adult population, although lottery gambling is often reported as a secondary form of gambling by problem gamblers in Europe and New Zealand.
- Some Lotto gambling was a preferred form for all types of gambler in New Zealand surveys but was slightly less so for problem or probable pathological gamblers, predominantly because other forms of gambling such as horse/dog betting and electronic gaming machines were also a preferred form.
- Lottery products (in particular, scratchcards) have a definite appeal to a substantial proportion of children and adolescents, from as early an age as 10 years.
- International studies indicate that lottery play may be a predictor for increased gambling behaviour and amongst adolescents may be problematic for a small minority. Several studies have shown that under-age adolescents easily and regularly have access to lotteries products, through self-purchase and also through purchase by parents or other family members.
- Although only a very small minority of adults and a slightly larger minority of adolescents appear to have a problem with lottery products, the fact that a problem exists provides an area worthy of further research, particularly in New Zealand and especially in relation to under-age players where the long-term effects of developing a problem at an early age are unknown.

What is the role of lotteries marketing in shaping people's views on participating in lotteries and about gambling in general?

- Marketing can include advertising in various media (e.g. television, radio, billboards), televised programmes such as lottery draws and other situational characteristics such as the location and number of gambling outlets, and where the products are placed within an outlet (e.g. on check-out counter).
- Televised draws may influence lottery play, especially amongst adolescents. However, there is no conclusive evidence that viewing televised draws increases the likelihood of participation or vice versa.
- Advertising of lottery products was recalled by 84% of participants in a national survey of adults in New Zealand; the percentage was almost identical to that of people who participated in lottery gambling. However, this does not indicate any causal link. Studies with adolescents indicate that familiarity with lottery products (through advertisements) could be a factor in subsequent purchase of lottery products. Lottery advertisements may also be familiar and appealing to young people, who tend to consider gambling as a normal behaviour and lotteries as the dominant form of legal gambling.
- The availability of lottery games seems to be fairly acceptable in terms of people's attitudes to those products in relation to gambling as a whole. The

reasons are multi-faceted and may include the 'feel good' factor of gambling proceeds being directed to worthy/charitable causes and also due to a perception that playing the lottery may not really be gambling.

- A study in the United States, pre- and post- the introduction of a lottery in three states, indicated that the prevalence of adolescent gambling increased significantly after introduction of the lottery, that the lottery became a favourite activity in comparison with other forms of gambling and that expenditures on other forms of gambling also increased. However, there is no robust evidence that lotteries causally lead to gambling per se being an activity to be pursued.

What other lotteries have made existing or new products available on the internet or via electronic media and what impact, if any, have these had on problem and under-age gambling?

- Internet gambling is an expanding feature of contemporary life. Currently, it is mainly European countries and Canada that allow internet lottery gambling (weekly/twice-weekly draws, scratchcards and keno), directing their internet products to residents of their own countries. Other forms of remote electronic gambling include interactive television and mobile telephones (text messaging as well as internet).
- Examples of 'new' lottery products available on the internet or electronically could not be found.
- A number of governments have attempted to control internet gambling, including New Zealand.
- Currently only a small percentage of people gamble via the internet but this is likely to change over the impending years, particularly as access to the technology that is required for remote interactive gambling becomes more readily available and affordable.
- There are several areas of concern differentiating internet from traditional gambling. The unlimited access to gambling via the internet has a potential to lead to excessive gambling behaviour and could lead to greater exposure to under-age participants. Other areas of concern include: the potential for adolescent players to hide their age, the diminished perception of money when playing with electronic cash, the lack of external influencing factors when playing alone, and the risk of playing on disreputable and unregulated sites.
- The use of the internet as a medium for gambling also has the potential for technological safeguards to be established that minimise the potential for harmful or excessive gambling. This would rely on the internet gambling provider having the social responsibility to establish those safeguards.

What policies, programmes, codes of practice and corporate social responsibility guidelines have other lotteries adopted and is there any evidence about the impact these have had on problem and under-age gamblers?

- Provision of responsible gambling is a hot topic world-wide and is adopted by most lottery providers. However, the level of adoption varies considerably.
- The World Lottery Association has recently adopted a set of responsible gambling principles committing their members (including New Zealand) to make responsible gambling an integral part of their daily operations.
- Camelot (UK National Lottery), the Oregon Lottery in the USA, Manitoba Lotteries Corporation in Canada, Veikkaus (Finnish Lottery) and the New

Zealand Lotteries Corporation are organisations which appear to have significant commitment to social responsibility and which have implemented a variety of policies in order to achieve this.

- Since some lottery products (in particular, scratchcards) appear to be a popular form of gambling for adolescents and children as young as 10 years of age, particular care needs to be taken in terms of ensuring their safety. This can include not only corporate social responsibility practices by lottery providers but also regulation at a governmental level including statutes restricting access (by age), restricting advertising and enforcement of penalties for vendors/providers who violate such laws. Additionally, since many young people access lottery products through family and friends, there appears to be a need for general awareness-raising regarding the potential harms from lottery play, especially for adolescents.
- A further separate consideration is internet gambling. Corporate social responsibility policies relating specifically to this medium are required to protect players. These could revolve around the fact that internet gambling is likely to be an asocial activity with no third party presence available to observe player age or behaviour; additionally there is a risk that players may not easily be able to distinguish between legitimate and regulated sites versus illegal disreputable ones.
- There is no robust evidence available to indicate the effectiveness of corporate social responsibility programmes currently in place. However, the Oregon Lottery implemented a women's problem gambling campaign (television advertisement) to reach more of the female population - this resulted in a doubling of the call volume at problem gambling treatment centres with several women entering treatment as a direct result of seeing the advertisement.

What education programmes or materials have been developed to educate gamblers about responsible gambling and are there examples of 'good practice' in this area?

- Many lottery providers publish, at a minimum, helpline numbers on websites and/or lottery tickets and have messages such as 'Please play responsibly' posted on websites, ticket machines and dispensers, and in advertisements. Some providers take a more active approach to responsible gambling and have introduced retailer training programmes that may include responsible gambling and problem gambling issues and/or issues relating to odds of winning and legal age limits. Brochures and posters are often produced as part of these programmes. The Oregon Lottery appears to be leading the way with responsible gambling initiatives.
- There is practically no research on the effectiveness or people's awareness regarding responsible gambling initiatives.

The review of literature identified several areas where more research is required in relation to lottery products and their association with potential gambling harms. These especially relate to adolescents, a population group potentially more at risk from lottery gambling harms, than adults. The identified research gaps fall into six main categories:

- Longitudinal studies
- Impacts
- Awareness programmes
- Responsible gambling initiatives

- Behaviour
- Other

These research gap categories have been used as the basis for the following recommendations as to research that the New Zealand Lotteries Commission may wish to contract. The recommendations are not detailed in any particular order or priority.

- 1) Longitudinal studies are required to investigate the long-term effects of adolescent lottery play
- 2) Research is required to assess the social and psychological impact of all forms of lottery play
- 3) Research is required to assess exposure to lotteries advertising and the influence of that exposure
- 4) Awareness programme/s aimed at informing adults about the potential risks of adolescent lottery gambling behaviour could be developed and evaluated
- 5) Robust evaluation of the effectiveness of current and future responsible gambling initiatives is required
- 6) Research is required to investigate behavioural change in response to prevention and public awareness education programmes
- 7) Research is required to explore adolescent gambling knowledge, perceptions, attitudes and behaviour
- 8) National statistics data should detail individual lottery products

Conclusion

While not as strongly implicated with problem gambling as some other gambling forms, a small minority of regular lottery players develop problems. Adolescents appear to be more susceptible to the negative effects of playing lotteries than other population groups. In addition, different forms of lottery products have different potentials for causing harm. Continuous forms such as scratchcards are more problematic than non-continuous forms such as weekly lottery draws.

The playing of lottery games, especially by adolescents and children, should be a concern given the high usage by adolescents and their potential to develop gambling problems (as indicated by international research). The apparent easy access by under-age players to lottery products is a particular concern. This could be addressed through tightened restrictions on under-age access at points of sale, through a change in parental and general population attitudes to, and perceptions of, lottery gambling and young people's participation in such, through more responsible advertising and marketing practices, and through strict and enforced legislation.

Remote interactive lottery play via the internet, interactive television and through mobile telephone technologies is likely to become an increasing concern due to the potential for unregulated and unmonitored gambling including by adolescents. Certain forms of internet gambling may also be classed as continuous forms of gambling and this too would then be an additional area of concern.

Most lottery providers adopt some form of responsible gambling initiatives. However, many are minimal and are likely to have limited impact. However, globally there are examples of initiatives where substantial responsible gambling policies and

programmes have been implemented which may well have a positive impact in reducing the harms from gambling. Research is required to identify whether or not this is, in fact, the case.

1 BACKGROUND

1.1 Terms of reference

The New Zealand Lotteries Commission contracted the Gambling Research Centre to:

- 1) Conduct a review/audit of existing research in relation to five specific questions:
 - To what extent do lotteries products in general and New Zealand lotteries products in particular appeal to problem and under-age gamblers? Do some products appeal more than others and, if so, can this be described?
 - What policies, programmes, codes of practice and corporate social responsibility guidelines have other lotteries adopted and is there any evidence about the impact these have had on problem and under-age gamblers?
 - What other lotteries have made existing or new products available on the internet or via electronic media and what impact, if any, have these had on problem and under-age gambling?
 - What is the role of lotteries marketing in shaping people's views on participating in lotteries and about gambling in general?
 - What education programmes or materials have been developed to educate gamblers about responsible gambling and are there examples of 'good practice' in this area?
- 2) Identify gaps in the research.
- 3) Recommend research that New Zealand Lotteries Commission may commission to fulfil New Zealand Lotteries Commission objectives.

1.2 Reviewing Team

Dr Maria Bellringer is a Senior Research Fellow and is Coordinator of both the Gambling Research Centre and the National Institute for Public Health and Mental Health Research at Auckland University of Technology. She has a detailed knowledge in the area of gambling research, particularly within the New Zealand context, and has over 18 years experience in project and research management. Dr Bellringer has also trained as a person-centred counsellor and has been a volunteer counsellor for young people.

Professor Max Abbott is Pro Vice-Chancellor and Dean of the Faculty of Health and Environmental Sciences, Director of the Gambling Research Centre and Co-Director of the National Institute for Public Health and Mental Health Research at Auckland University of Technology. He is also a Board member and Chair of Waitemata District Health Board's Hospital Advisory Committee. He is a past chairman of the Compulsive Gambling Society and past President of the World Federation for Mental Health. In 1991 he conducted the first New Zealand national problem gambling prevalence survey. Since then he has retained a significant involvement in problem gambling research, alongside research on migrant adaptation and health and other areas

within public health and mental health. Most of his research is applied and related to other professional and community involvement.

1.3 Review methodology

The methodology utilised for review of available literature is discussed in detail in Chapter 2. The literature accessed included that which is available (electronically and/or in hard copy) through the Auckland University of Technology library electronic databases, through specialist electronic libraries, through personal collections (including grey literature) and via internet searches.

All accessed literature was examined in depth by Dr Maria Bellringer with review and additional input by Professor Max Abbott. Independent peer review was provided by Dr Rachel Volberg.

2 METHODOLOGY

The literature searches were conducted in five concurrent phases, which consisted of:

- a) Electronic bibliographic indexes accessed via on-line database searches
- b) Specialist libraries accessed via web-based searches and searches through personal collections
- c) Grey literature accessed via personal collections and through professional and informal networks
- d) Professional and informal networks contacted via personal communications and discussion groups
- e) Internet websites using search engines such as Google

2.1 Electronic bibliographic indexes

A search of the following on-line databases accessible through the Auckland University of Technology library system was conducted to locate potentially relevant literature:

- Academic Search Premier
- Blackwell-Synergy
- Business Source Premier
- Cochrane Library
- CSA Social Services Abstracts
- EBSCO MegaFile Premier
- ProQuest 5000 International
- PsycARTICLES
- PsycINFO
- ScienceDirect

Academic Search Premier is the world's largest academic multi-disciplinary database, providing full text for nearly 4,000 scholarly publications, including full text for more than 3,100 peer-reviewed journals. Coverage spans virtually every area of academic study and offers information dating as far back as 1975. Subject areas include: social sciences, humanities, education, computer sciences, engineering, physics, chemistry, language and linguistics, arts and literature, medical sciences, ethnic studies and more.

Blackwell-Synergy delivers the full text of over 620 prestigious journals within physical sciences, life sciences, medicine, social sciences and humanities.

Business Source Premier is the world's largest full text business database providing full text for more than 2,800 scholarly business journals, including full text for more than 900 peer-reviewed business publications. Coverage includes virtually all subject areas related to business. This database provides full text (PDF) for more than 300 of the top scholarly journals dating as far back as 1922.

Cochrane Library consists of a regularly updated collection of evidence-based medicine databases, including The Cochrane Database of Systematic Reviews: evidence-based systematic reviews prepared by the Cochrane Collaboration which

provide high quality information to people providing and receiving care and those responsible for research, teaching, funding and administration at all levels.

CSA Social Services Abstracts provides bibliographic coverage of current research focused on social work, human services, and related areas including social welfare, social policy and community development. The database abstracts and indexes over 1,406 serials publications and includes abstracts of journal articles and dissertations, and citations to book reviews.

EBSCO MegaFile Premier is a suite of 24 databases covering a wide variety of subjects. It includes MEDLINE which is the world's most comprehensive source of life sciences and biomedical bibliographic information. More than 7,000 of the 11,000 titles in the suite are available in full text including 3,200 peer-reviewed journals.

ProQuest 5000 International indexes over 5,500 journals across several disciplines and with full text for over 3,000. It is one of the world's most comprehensive collections of digital information. Millions of complete articles are available online in various formats.

PsycARTICLES is a collection of 42 highly regarded full text journals from the American Psychological Association.

PsycINFO is an electronic bibliographic database that provides abstracts and citations to the scholarly literature in the behavioural sciences and mental health. The database includes material of relevance to psychologists and professionals in related fields such as psychiatry, management, business, education, social science, neuroscience, law, medicine and social work. The PsycINFO database contains almost two million references to psychological literature from the 1800s–present, from journal articles, books, book chapters, technical reports and dissertations.

ScienceDirect is a collection of over 1,700 journals from Elsevier Science, Academic Press and Harcourt Health Sciences covering a wide range of disciplines.

The searches were performed from January to May 2006 utilising the following keywords.

- Lottery / lotteries / Lotto / scratchcards / scratchies / keno / internet lottery / electronic lottery
- and
- Problem / pathological / youth / young people / adolescents / normalisation / host responsibility / corporate social responsibility / marketing / responsible / educational material / educational programme / remote interactive gambling

Each literature search on each database accessed varying numbers of articles. There were varying degrees of overlap between the databases. A full list of titles and/or abstracts was obtained from each search. For titles or abstracts that appeared to be relevant to this project, full text publications were accessed electronically and viewed.

2.2 Specialist libraries

Various gambling-related organisations, lottery providers and government departments have websites which include searchable databases and/or libraries, or which detail gambling- or lottery-related publications and reports. Between January and May 2006, various websites were searched for literature relevant to the project. Any material that appeared to be relevant was downloaded and reviewed.

The Reviewing Team also had access to substantial personal libraries on gambling and related subjects. These collections contain many reports that have not been published in mainstream literature plus publications that are difficult to obtain. They also include pre-publication reports and articles from a variety of sources. Where relevant, these materials were utilised for this report.

2.3 Grey literature

Grey literature, being unpublished works not widely available to the general public, was accessed by two means. Firstly, through the personal library collections detailed in Section 2.2 and secondly, via professional and informal networks, detailed below in Section 2.4.

2.4 Professional and informal networks

Both members of the Reviewing Team have a wide network of professional colleagues within the gambling field. This includes researchers, treatment/service providers, public health specialists, government officials and gambling industry personnel. Where appropriate, the Reviewing Team contacted (generally by telephone or Email) specific people who were considered possibly to have information that would be useful to this report. Some information regarding relevant available material was obtained in this manner.

Additionally, a 'request for help' was posted to the international Email discussion group for problem gambling professionals *GamblingIssuesInternational*. This forum has nearly 400 members from 17 countries, represented by researchers, clinicians, educators, policy makers and others. It is moderated by CAMH, the Centre for Addiction and Mental Health, Ontario, Canada. The posting to the discussion group resulted in several responses leading to useful material for this review.

3 LITERATURE REVIEW

This chapter details the review of literature, covering the five areas indicated within the terms of reference. The review starts with background information on lotteries products in relation to gambling in general as well as in relation to problem gambling (Section 3.1). This leads into a section on the appeal of lotteries products (Section 3.2) and is followed by a section on the role of lotteries marketing in shaping people's views on participation in gambling (Section 3.3). A description of internet and electronic lotteries products and impacts on problem gambling is detailed in Section 3.4. This is followed by a section on policies, programmes, codes of practice and corporate social responsibility and their impacts (Section 3.5) with the final section detailing some current responsible gambling educational programmes and materials (Section 3.6).

It should be noted at this stage that as well as traditional lottery products (e.g. weekly lottery, scratchcards, keno), lottery corporations are responsible for electronic gaming machines and casinos in some jurisdictions, for example in Canada. For the purposes of this review, as electronic gaming machines and casinos are managed by entities other than the Lotteries Commission in New Zealand, only traditional lottery products are focused on in this report.

There is currently a range of terms used to refer to individuals who experience difficulties related to their gambling. To name a few, these include 'problem', 'pathological', 'excessive', 'compulsive', 'disordered', and 'at-risk'. These terms reflect differences in emphasis among researchers and other key stakeholders interested in the issue. For the purposes of this report, when detailing findings of research projects, the terminology used by the original researchers has been reported. At other times, the generic term of 'problem gambler' has been used. Where the term 'at-risk' has been used, this is in relation to those people who are not yet problem gamblers but have a higher potential for becoming so, than others.

Similarly weekly lotteries may also be known as Lotto and instant tickets are also referred to as scratchcards, scratchies or scratch tickets. Again, when reporting research results the terminology of the original authors is used; otherwise the preferred expression reported in this document is lottery and scratchcard.

3.1 Background

There are three common definitions of the word lottery in standard dictionaries:

- 1) A contest in which tokens are distributed or sold, the winning token or tokens being secretly predetermined or ultimately selected in a random drawing
- 2) A selection made by a lot from a number of applicants or competitors
- 3) An activity or event regarded as having an outcome depending on fate

Thus, a contemporary lottery can be defined as a prize game in which an organiser accepts bets on the chances which several numbers have of being extracted at random from a defined series of numbers or symbols. The winning numbers are determined by public draw. The prize money is divided into several winning categories and equally

apportioned among the winners within each of these categories (European Commission, 2006).

This section gives a general background in relation to lottery products detailing their availability, generic types of products that are available, and what happens to the revenues from lottery playing. It also focuses on whether the widespread presence of lottery games 'normalise' gambling, i.e. whether people generally consider lottery playing to be gambling and whether playing the lottery or having lottery games readily available then encourages people into other forms of gambling. This section ends with discussion around whether lottery play can lead to problem gambling.

3.1.1 Availability

Lotteries appear to have been in existence for over 2000 years. Forms of lotteries have dated back to the time of the Roman Empire and the Hun Dynasty in China. The Bible makes reference to land being allocated via a lottery: "notwithstanding the land shall be divided by lot..." and then: "According to the lot shall the possession thereof be divided between many and few" (Numbers 26:55 and 26:56). One of the first European lotteries was recorded in 1446; it was a raffle held by the widow of Flemish painter Jan van Eyck to dispose of his remaining paintings. Subsequently, forms of lottery have become much more popular, so that today there are many types of lotteries all around the world. Over 100 countries have lottery/s operating within their jurisdictions; these include places considered to be third world such as Niger in Africa, as well as more affluent Western countries. The operation of these lotteries varies with some being operated by national or state governments and others by private corporations.

In 1961, the New Zealand government introduced the Golden Kiwi Lottery. Prior to 1961 the art unions, regulated by the government, had operated lotteries to raise funds for distribution to charitable or philanthropic purposes or objects. In 1989 the Golden Kiwi held its last draw; it was replaced with an array of state run gambling. In 1987 the first game of Lotto was held, followed by Instant Kiwi (scratchcard game) (1989), Lotto Strike (numbers draw game) (1993), Daily Keno (1994), Telebingo (televised bingo) (1996-2001), PowerBall (a version of Lotto) (2001) and Big Wednesday (Lotto drawn on a Wednesday) (2006). Many North American states also commenced forms of state-wide lottery from the 1960s. The United Kingdom was much later with the launch of its National Lottery in 1994.

In 1998, the National Gambling Impact Study Commission noted that the revival of lotteries began in the United States in 1964. Along with rapid expansion, lottery revenues have increased dramatically over the years from US\$2 billion in sales in 1973 to US\$34 billion in 1997¹. In addition, technological advances have played a role in lottery growth creating links between retail outlets and central servers and allowing lotteries to branch out into new games that are competitive with casino-style gambling. The National Gambling Impact Study Commission noted that the lottery industry stands out in the gambling industry by virtue of being the most widespread form of gambling and the only form of gambling subject to a virtual government monopoly. An

¹ This was equivalent to an increase from US\$35 per capita in 1973 to US\$150 per capita in 1997.

important issue that concerned the National Gambling Impact Study Commission was the ability of state governments to manage an activity from which they profit directly. Lotteries can be under constant pressure to maintain the level of revenues and often to increase them with the result that considerations of public welfare may take second place.

Whilst there is no comparable research in New Zealand, the National Gambling Impact Study Commission cites a range of studies that find the sale of lottery tickets to underage persons occurs “with a disturbing frequency” (p. 3-4). A further criticism is that some lotteries, in pursuit of revenues, have employed overly aggressive and even deceptive advertising and other marketing methods. As government agencies, lotteries are not subject to federal “Truth in Advertising” standards. Indeed, in 1997, state lotteries spent a total of US\$400 million, about one percent of total sales, on advertising to promote their games. Important conclusions of this major government study included a ban on instant games that are simulations of live card and other casino-style games, a ban by relevant governmental regulatory bodies on aggressive advertising strategies - especially those that target people in impoverished neighbourhoods or youth - and the voluntary adoption of enforceable advertising guidelines by all gambling operators. Finally, the National Gambling Impact Study Commission concluded that “heavy governmental promotion of lotteries ... may contribute disproportionately to the culture of casual gambling in the United States. The National Gambling Impact Study Commission therefore recommends that states curtail the growth of new lottery games, reduce lottery advertising, and limit locations for lottery machines” (National Gambling Impact Study Commission, 1999, p. 3-19).

In addition to jurisdictional lotteries, there are multi-state games in operation. The Euro-lottery in Europe is one example, incorporating several European countries. In the United States the first multi-state lottery was established in 1985 comprising New Hampshire, Maine and Vermont; it was established to compete against larger states with bigger prizes. A current 12-state lottery has jackpots which start at US\$12 million and can roll over to higher levels, with the largest jackpot of US\$363 million occurring in 2002 (Simmons, 2006). The purpose of these multi-state lotteries appears to be to enable larger jackpots and thereby to attract more players or to revive interest among existing players.

Lottery industries are big business, directly and indirectly, creating jobs in various support sectors such as market research companies, printing manufacturers, suppliers of instant tickets, fraud detection and security services. Proceeds from lottery products are usually distributed to charitable causes including education. In some jurisdictions such as the United Kingdom, specific types of scratchcards are produced by independent charitable organisations to provide funds for their particular organisation.

Lottery tickets are usually easily available for purchase. In New Zealand, similar to the United Kingdom, the United States, Australia and other jurisdictions, lottery and/or scratchcards can be purchased from convenient retail outlets such as newsagents, convenience stores and petrol stations. Often the point of purchase is at the check-out till making it easy for a last minute snap decision to purchase a ticket. There are also some lotteries where tickets can be purchased via the internet. The European lottery syndicate (Euro-lottery) is one such example.

Accessibility to lottery products is often restricted by a minimum age limit for purchase, usually 16 or 18 years, dependent on jurisdiction. In New Zealand, there is no minimum age for the purchase of a lottery ticket; however, the minimum age for buying a scratchcard is 18 years, raised from 16 years following the enactment of the Gambling Act 2003.

3.1.2 Types of lottery

There are several types of lottery game that are commonly available throughout the various jurisdictions.

Lotto/numbers games usually involve picking six numbers from a total of either 40 or 49. Six numbers are randomly drawn from the total at weekly or twice-weekly draws. Winners usually match at least three of the six balls drawn with the jackpot reserved for a match of all six numbers. Often a 'bonus' number allows for even higher prizes to be won. As participants have to wait for the draws to take place following the purchase of tickets, this form of gambling has a low event frequency and is known as a non-continuous form of gambling.

Scratchcards are lottery tickets played by scratching or scraping designated areas to reveal information used in determining the card's prize value. Since scratchcards can be bought and used (i.e. the designated areas can be scratched off) immediately, this type of gambling *can* have a rapid event frequency and *can*, therefore, be considered as a continuous form of gambling. However, it is acknowledged that for some people scratchcards may be a non-continuous form of gambling, for example tickets are taken home before being played.

Keno involves picking one to ten numbers and deciding how much to bet on a game. A computer then randomly picks 20 numbers out of the 80 possible. Players win when they match numbers with the more numbers matched, the greater the win. In New Zealand, keno draws take place twice a day. However, in some other jurisdictions, keno is played much more frequently, making it a continuous form of gambling. For example, in the Michigan Club Keno (USA), keno is played every five minutes in more than 2,000 bars state-wide.

3.1.3 Lottery revenues

Lottery proceeds are used for different purposes in different jurisdictions. Generally some proportion of revenue is taken by the federal or state government in tax whilst the remainder of the proceeds are distributed to a variety of educational, charitable and/or community causes. This is one reason why lotteries are generally perceived favourably since they are linked with good causes.

In New Zealand, under the Gambling Act 2003, one of the functions of the Lotteries Commission is to "promote, organise, and conduct New Zealand lotteries for the purpose of generating profits for distribution by the New Zealand Lottery Grants Board,

or for a community purpose for which a special purpose lottery is promoted". This is subject to ensuring that risks to problem gamblers and under-age gambling are minimised. At least 42% of the lottery profits goes to three statutory bodies (Sport and Recreation New Zealand, Creative New Zealand and the New Zealand Film Commission). The remaining profits are allocated to 18 lottery distribution committees and sub-committees, each with a specific funding focus.

3.1.4 Normalisation

Anecdotally there is speculation that lottery products normalise gambling. In truth there is very little robust evidence for this if by the word 'normalise' it is meant that lotteries causally lead to gambling per se being an activity that is partaken in normal every day life.

However, there is some evidence that lotteries have a widespread social acceptability and are positively favoured by consumers. Howland (2001) believes that "Lotto is the emblem that depicts New Zealand's 'good life' and that engagement with Lotto is a potentially mute acceptance of the productive and consumption demands of trans-national capitalism".

Market research in the United Kingdom showed that 58% of those polled agreed that the lottery had made gambling more acceptable (Henley Centre, 1996 cited in Griffiths & Wood, 2001). Two British researchers speculate that the British National Lottery also appears to have turned gambling into a mass socially acceptable activity with children being saturated with the principles of gambling (Griffiths & Wood, 1999).

Further evidence for acceptability of lotteries is obtained from a three-state study in the United States conducted before and after the implementation of a state-wide lottery (Jacobs 1994, cited in Jacobs 2000). Jacobs found that post-lottery prevalence for adolescent gambling increased significantly from pre-lottery levels, that the lottery had become a favoured wager in comparison with other forms of gambling, and that expenditure on other forms of gambling also increased from pre-lottery levels. Jacobs details a combination of factors which he calls the 'Pied Piper Effect'; an effect whereby the operation of a lottery is followed by an increase in gambling amongst adolescents (although he warns that the evidence is circumstantial and not causal) (Jacobs, 2000).

This 'legitimation' of gambling could be due to a number of factors including that lottery products are sanctioned by governments, there is usually wide advertising of lottery products, there is generally wide availability of products in general shopping locations, lotteries are linked to charitable causes, promotion of products by celebrities (e.g. in the United Kingdom, many of whom appeal directly to young people) and televised coverage of draws (Wood & Griffiths, 1998; Wood & Griffiths, 2004). In New Zealand, the acceptability of lottery gambling was demonstrated in a nationally representative survey (N=1,500) conducted in 2000 whereby 75% of respondents had bought a Lotto ticket at least once in the previous 12 months, with 40% of those people buying a ticket once a week. Similar figures were seen when the survey had been previously conducted in 1990 and 1995 (Amey, 2001).

The widespread social acceptability and availability of lottery products creates the impression that they are approved by society. Additionally, the observation of significant others (family, friends, celebrities) associating themselves with lottery products can result in modelling of the behaviour, especially amongst young people (Wood & Griffiths, 2004). However, there is no causal evidence that the popularity of lottery gambling leads to popularity of gambling on other forms.

3.1.5 Lotteries and problem gambling

Lottery draws have a low event frequency (i.e. there is a number of days gap between knowing the outcome of each gamble) and are thus less likely to cause problems than more continuous forms of gambling (i.e. where the time between stake and outcome is rapid and can be repeated at a high frequency). It is pertinent to mention at this stage that scratchcards are a different type of gambling from the weekly or twice-weekly lottery draws. Scratchcards can be described as a continuous form of gambling. A number of general population prevalence surveys have identified that people who participate regularly in continuous forms of gambling are significantly more likely to develop problem gambling behaviours (Abbott & Volberg, 2000; Productivity Commission, 1999; Schrans et al., 2000).

Adult problem gambling

There appears to be little evidence that weekly or twice-weekly lotteries lead to problem gambling amongst the adult population, although lottery gambling has been reported as a secondary form of gambling by problem gamblers in Europe and New Zealand (Griffiths & Wood, 2001; Ministry of Health, 2005, 2006a). In 2005 in New Zealand, 21% of new gambler clients attending face-to-face counselling services cited lottery products as an additional mode of problem gambling (Ministry of Health, 2006a).

However, adults may have a problem with gambling on lottery products or may suffer harm from inappropriate expenditure on certain occasions such as when a jackpot is particularly high. That some people may have a problem with lottery products means that problem gambling should be a concern to lottery providers (Feeney, 2002).

In one of the earliest academic studies of lottery play, Hraba and colleagues conducted a telephone interview with 1,011 adults in the state of Iowa, USA. Respondents were asked about their lottery play, gambling in general, personality characteristics and socio-economic background. The researchers found that lottery play (whether played in the past seven days or whether ever played) was predictive of more general gambling behaviour, with money spent on the lottery in a typical week being a predictor of loss of control and gambling consequences (previous stages of problem gambling were deleted from the analysis as predictor variables). However, the authors pose the question “can lottery play alone propel people into the deeper stages of problem gambling, or must it expand into more general gambling behaviour and loss of control before the deeper stage of problem gambling results?” (Hraba et al., 1990). Longitudinal research is needed to answer this question.

Results from the 1999 New Zealand national prevalence survey indicated that 1.6% of current problem gamblers had participated in Lotto, 2.3% had participated in Instant Kiwi and 3.2% had participated in TeleBingo² (a form of bingo with televised draws), in the past six months. When looking at regular participation (participated once a week or more) by current problem gamblers, the percentages were 2.1%, 3.5% and 2.7% for Lotto, Instant Kiwi and TeleBingo respectively. This compared with 5.1% and 18.9% of current problem gamblers who participated in playing non-casino electronic gaming machines, past six month and weekly or more, respectively. Participation percentages were higher for all these forms of gambling amongst lifetime problem gamblers (Abbott & Volberg, 2000). Whilst not indicating any causality between lottery products and problem gambling, these results indicate that problem gamblers do participate in lottery gambling, with scratchcards more popular than Lotto.

In 2005, 21.4% of new clients accessing face-to-face counselling services in New Zealand for their problematic gambling stated that Lotto, keno or scratchies were a secondary mode of problem gambling. This contrasted with only 2.1% stating that these lottery products were their primary mode of problem gambling (Ministry of Health, 2006a). Unfortunately, these statistics combine non-continuous forms of gambling (e.g. Lotto) with continuous forms (e.g. scratchies) so it is not known which form is considered to be the most problematic. The relevance and/or importance of secondary modes of problem gambling in terms of development and maintenance of gambling problems has not been researched.

The launch of the National Lottery in the United Kingdom in 1994 provided an opportunity for examination of the impact of the introduction of a major form of gambling on gambling problems. A market research survey reported a 17% increase in calls to Gamblers Anonymous in the year following the introduction of the lottery (Mintel, 1995). In another study, Shepherd and colleagues surveyed a random sample of residents (N=2,000) from a single location immediately prior to introduction of the lottery and then six and 12 months after it had started. Although the 10% response rate was extremely low, results showed a significant increase in DSM-IV scores for pathological gambling at both measurement points after the introduction of the lottery. The results also showed a significant positive correlation between mean DSM-IV score and the average number of lottery and scratchcard tickets purchased (Shepherd et al., 1998). These findings are important, as they may suggest that increased availability and opportunities to gamble for the general population may contribute to a corresponding increase in the prevalence of problem gambling. However, it should be noted that recent replication surveys and other research from North America, Australia and New Zealand may contradict this notion with the relationship applying at early stages of gambling expansion but subsequently breaking down in some situations (Abbott et al., 2004).

Adolescent problem gambling

Preliminary research in the United Kingdom with young adolescents suggests that lotteries may be problematic for a small minority of those individuals (Griffiths & Wood, 1999).

² TeleBingo was available in New Zealand from July 1996 to June 2001.

A study in the United Kingdom measured adolescent (under-age) problem gambling on the UK National Lottery utilising the DSM-IV-J addiction scale (Fisher, 1992) adapted from the American Psychiatric Association diagnostic criteria. That study found that six percent of players may have developed problem gambling on the lottery (Wood & Griffiths, 1998). However, the numbers were small (26 male, 11 female) and must, therefore, be viewed with caution. The study also showed that 17% of the participants were worried about how much they spent on the lottery.

In 1998, the UK Office of the National Lottery (OFLOT) funded a large survey of adolescents aged 12 to 15 years, selected from 114 schools in England and Wales (N=9,774). The aim was to examine the participation by young people in all types of gambling and to undertake a detailed statistical analysis of possible problem under-age scratchcard playing (Fisher, 1998). The survey found that 13% of the respondents had spent their own money on the National Lottery in the week prior to the survey, with 5% spending money on the National Lottery Draw, 4% on the National Lottery scratchcards and 4% spending money on both games. The young people who made under-age purchases were more likely than other children to be male, aged 14 to 15 years and to have spent more than £5 in the week the purchases were made. One percent of the young people surveyed had a problem with National Lottery scratchcards only and another 1% had a problem both with fruit machines and National Lottery scratchcards. The most significant differences between the problem gamblers and other children were gender and disposable income. The majority of the children surveyed reported watching the National Lottery Live television shows (84%), thus they had exposure to lottery gambling. Fisher (1998) concluded that commercial gambling games, particularly fruit machines and the National Lottery, are attractive to young people and that a significant minority circumvent the existing legal and voluntary minimum age restrictions to play them. This indicates that these young people have access to lottery products despite restrictions. She further concluded that appropriate regulatory controls were needed along with the development of awareness in adult society about the susceptibility of children to problem gambling and establishment of screening procedures for problem gambling in centres dealing with other addictions in young people. Awareness regarding the potential effects of exposure and access of young people to lottery products would also seem prudent.

In 1999, the UK National Lottery Commission funded a representative survey of adolescents aged 12 to 15 years selected from 111 schools in England and Wales (N=9,529). The aim was to explore sales of lottery products to under-age persons and the prevalence of problem gambling. The survey found that 1.7% of participants were classified as problem gamblers of scratchcards (Instant) (using the DSM-IV criteria for problem gambling) with 69% of those adolescents also being problem players of fruit machines (Ashworth & Doyle, 2000). The scratchcard problem gamblers were also much more likely than non-problem gamblers of scratchcards to have spent money in the previous week on other forms of commercial gambling such as other lottery products, fruit machines, betting games through a betting shop, bingo at a club and other commercial scratchcards. A follow up survey in 2000 (N=11,581) showed that the prevalence of scratchcard (Instant) problem gamblers had remained steady at about 2% (Ashworth et al., 2000).

A large survey of school-age children (10 to 18 years, N=1072) in the province of Ontario, Canada showed that 2.8% of the participants met the DSM-IV-MR-J revised criteria (Fisher, 2000) for probable pathological gambling with 6.8% categorised as at-risk for severe gambling problems. Social gamblers comprised 65.2% of the participants. The study also showed that those with the greatest gambling problems reported that their parents most frequently purchased lottery products for them. This suggests that parents are unwittingly fostering or maintaining the development of a potential gambling problem, especially since most youth problem gamblers experience a similar pattern before experiencing difficulties. This pattern includes purchasing lottery products, playing cards for money, betting on games of skill and sports betting, with many problem gamblers then progressing to electronic gaming machines and/or casino playing (Derevensky & Gupta, 2001; Felsher et al., 2003). The average age at which youths reported that they started buying lottery products was approximately 12 years, with those participants meeting the criteria for probable pathological gambling reporting an even earlier age of onset (for playing) than social or at-risk gamblers (8 years for scratchcards, 10 years for lottery draws). The age of onset for purchasing tickets by those meeting the criteria for probable pathological gambling was still well under the legal age limit (12 years for scratchcards, 13 years for lottery draws) (Derevensky & Gupta, 2001; Felsher et al., 2004a).

In that same survey, youths with gambling problems reported a preference for lottery products compared to other gambling activities, reported that they were more likely to visit a store specifically to buy lottery tickets and were also more likely to purchase a ticket as a result of seeing it advertised on the store counter. They were also more likely than social gamblers or at-risk youths to scratch instant tickets immediately, rather than waiting until they arrived home (Derevensky & Gupta, 2001; Felsher et al., 2004a). In addition, these youths demonstrated 'chasing' behaviours by being more likely to return to the store to purchase tickets, irrespective of whether they had won or lost money. Chasing losses is one of the features of problematic gambling.

Early participation (in childhood) in gambling activities including gambling with family members is a risk factor for the development of problem gambling in later life. Several studies have found that problem gamblers, compared with non-problem gamblers, report higher rates of gambling problems among family members and higher levels of early exposure to gambling participation within the family. Problem gamblers also often report an earlier onset of gambling participation and an early introduction to this behaviour from family members (Abbott, 2001b; Raylu & Oei, 2002; Tepperman & Korn, 2004)

However, it must be borne in mind that early gambling participation is just one of many risk factors that can potentially lead to gambling problems, and in isolation, its impact on problem gambling development is unknown. Other identified risk factors include low socio-economic status, being of a young age, belonging to particular minority ethnic groups, residing in urban areas, being male, and low educational and low occupational status (Abbott, 2001b; Abbott & Volberg, 2000; Abbott et al., 2004; Becona, 1996; Volberg, 1994; Wardman et al., 2001). Other, personal risk factors include certain biological factors, temperament and personality, psychological states and mental disorders, and cognitions (Abbott et al., 2004).

Key findings in this Section

Availability

- Lotteries have been available for over 2000 years
- Modern lotteries started to appear in the 1960s
 - The Golden Kiwi Lottery was introduced in New Zealand in 1961
- Lottery products are generally highly accessible; available in a multitude of non-gambling specific locations (including in New Zealand)
- Some jurisdictions have an age restriction for purchase of some or all lottery products
 - In New Zealand there is no age restriction for purchase of a Lotto ticket but there is a minimum age of 18 years for purchase of a scratchcard

Types of lottery

- Numbers games such as Lotto; these are generally weekly or twice-weekly draws and variations on this theme
- Scratchcards (instant scratch tickets)
- Keno

Lottery revenues

- Lottery proceeds are generally allocated to charitable/educational/community causes (including in New Zealand)

Normalisation

- Lotteries have widespread social acceptance (including in New Zealand)
- Lotteries are seen to be a 'legitimate' form of gambling (including in New Zealand)

Problem gambling

- Lotteries have been reported as a secondary form of gambling by those seeking help for problem gambling (21% of gambler clients attending counselling in 2005 in New Zealand)
- Regular players of scratchcards have a higher risk of developing problem gambling due to the continuous nature of scratchcard playing (international and New Zealand research)
- Lotteries are problematic for a small minority of adolescents (international research) and adults (international and New Zealand research)
- The average age at which adolescents start playing lottery products is 12 years (international research)

3.2 Appeal of lotteries products

This section details the general appeal of lottery products, in particular, participation rates and reasons for participating in lottery draws and making scratchcard purchases in various jurisdictions around the world. It then focuses specifically on the access to, and appeal of, such products by under-age gamblers.

3.2.1 General appeal

Weekly or twice-weekly lotteries appear to be appealing because they offer a low cost chance of winning a very large jackpot prize - it is the chance of winning a large, potentially life-changing, jackpot that stimulates people to play. There is also easy accessibility for the purchase of tickets. According to Beenstock and Haitovsky who reviewed data from the Israeli lottery covering almost 600 weekly draws played over 11½ years, the demand for Lotto varies directly with the announced jackpot and inversely with the price of a ticket; a jackpot rollover also induces an independent source of excitement and interest in the game (Beenstock & Haitovsky, 2001).

The appeal of scratchcards is somewhat different due to the more continuous form of play that is possible. Griffiths and Wood (1999) argue that the appeal (and thus the potential addictiveness) of that form of lottery product is that scratchcards:

- Produce psychologically rewarding experiences in losing situations by simulating 'near winning' experiences
- Have a rapid event frequency (short payout intervals)
- Are deceptively inexpensive
- Require no skill
- Provide opportunity for repeated and continuous gambling
- Are highly accessible

From the 1999 New Zealand national prevalence survey, it was reported that of all forms of gambling, Lotto was the form most highly participated in, in terms of lifetime participation (86%), past six-month participation (73%) and weekly participation (35%). With respect to past six-month or more frequent participation, Lotto participants were:

- More likely to be employed and lack degree or higher qualifications
- Less likely to be aged 18-24 years, have lived in New Zealand for less than four years, be of a religion other than Christian or a Christian who does not belong to one of the major denominations

Instant Kiwi (scratchcard) participants were:

- More likely to be employed, female, aged less than 45 years (with particularly high levels of participation by people aged 18-24 years)
- Less likely to be Pacific, have lived in New Zealand for less than four years, be of a religion other than Christian or a Christian who does not belong to one of the major denominations

Although considerable differences in the amounts of monthly gambling expenditure were reported in the survey, average amounts were NZ\$18 for Lotto, NZ\$26 for Instant Kiwi and NZ\$10 for daily keno (Abbott & Volberg, 2000). In 2005, problem gamblers attending face-to-face counselling services reported a median of NZ\$70 lost on Lotto/keno/scratchies in the four weeks prior to their counselling assessment (Ministry of Health, 2006a). However, as the sample size was small (N=19) this figure should be viewed with caution.

In another New Zealand survey, 75% of all respondents (N=1,500) in 2000 bought at least one lottery ticket in the past 12 months; the figure was 48% for Instant Kiwi. The main motivation for buying a ticket or a scratchcard was to win prizes/money. Buying a ticket as a gift was reported by 21% of lottery participants and 16% of scratchcard participants. Buying a scratchcard for excitement/challenge was reported by 21% of participants. Females were more likely than males to have played Lotto at least once during the year (80% versus 70%) but males who did play bought tickets more frequently than female participants. The trend was similar amongst scratchcard players. Males also reported spending more than females on lottery tickets (30% spending NZ\$10 or more compared with 20% of females), however, expenditure was similar between the sexes for scratchcards. Lotto participants were more likely to be aged 45-54 years and least likely to be aged 15-24 years; conversely people in the younger age groups favoured Instant Kiwi with people aged under 35 years comprising 44% of the participants. Pacific people (90%) were more likely to play Lotto at least once a month than Maori (79%) or the general population (73%). Maori were more likely to have played Instant Kiwi (56%) than Pacific peoples (38%) or the general population (48%). Daily keno appeared to be less popular with only six percent of the sample reporting playing (Amev, 2001).

A more recent, market research survey conducted in October 2004 reported that 82% of participants (N=1056, aged 16 years and over) had bought at least one lottery ticket in the past 12 months with 61% having bought at least one Instant Kiwi ticket in that time period. Only five percent of participants reported playing daily keno. Regular (weekly) Lotto participants were more likely to be aged 50-59 years (54%). The thrill of playing (i.e. the excitement of having a chance for a big win) was the main motivation for playing Lotto (Fast Forward Future Marketing, 2004).

Since 1996, information released by the Department of Internal Affairs shows that total annual expenditure on lotteries products has been relatively stable. Expenditure was NZ\$281 million in 1996 and NZ\$280 million in 2005. However, fluctuations in total expenditure occurred during the ten year period (available at [http://www.dia.govt.nz/pubforms.nsf/URL/Expendstats05.pdf/\\$file/Expendstats05.pdf](http://www.dia.govt.nz/pubforms.nsf/URL/Expendstats05.pdf/$file/Expendstats05.pdf)).

In the United Kingdom, a national survey of people aged 16 years and over showed that 67% of participants had played any National Lottery game with 41% playing regularly (at least weekly) (Sproston, 2002). The survey showed little gender difference in terms of participation though levels of weekly play increased with age. Three-quarters of the participants had never bought Instant (the National Lottery scratchcard) but of those who did play, it was the younger age groups that were more likely to do so. Watching the lottery draws live on television was not common amongst the whole population group though the proportion increased with increasing age.

In a review of state lotteries in the United States, it was concluded that people from all demographic groups participate in lottery gambling with annual lottery spending fairly equal across the income groups. Thus, on average, lower income groups spend a larger percentage of their wealth on lottery tickets than other households and low-income lottery players are more likely than other lottery players to bet on instant games (Kearney, 2005).

A state-wide survey in Georgia, USA showed that black males were more than ten times as likely as white females with the same levels of education to be active lottery players. Less educated respondents were also more likely to be active lottery players. This makes the Georgia lottery regressive as a source of state revenue (McCrary & Pavlak, 2002). However, lottery play within the United States varies. Eaton (2002) details in his report on the Kentucky lottery that in one survey blacks had the lowest participation rate (48.2%) though their expenditure per capita was higher than any other demographic group. However, in another survey detailed within his report, minority groups were more likely to play than whites (67% versus 54%) (Eaton, 2000).

A survey of 8,479 residents in the state of Victoria, Australia found that lottery games were the gambling activity participated in by more participants than any other type of gambling (60.5%), with almost five percent of the group playing lottery games for someone else. Scratch ticket participation was at 40% with just over a quarter of that group buying instant scratch tickets for someone else. Club keno was played by five percent of the participants (McMillen et al., 2004).

The upshot of the above examples of lottery participation rates from Europe, the United States and Australasia indicate that lottery participation is a form of gambling that is popular amongst a majority of adults with about two-thirds of any population partaking in lottery draws and a significant, though lesser, population purchasing scratchcards.

3.2.2 Appeal to problem gamblers

Lottery products appear to be appealing to problem gamblers in much the same way as they are appealing to non-problem gamblers. Data from the 1991 New Zealand national prevalence survey and the follow-up study, seven years later in 1998, showed that Lotto gambling was the preferred form of gambling for all types of respondents (Abbott et al., 1999). Respondents were categorised as:

- Frequent non-continuous gamblers (people who gambled weekly or more on forms of gambling such as lottery products) who did not meet problem gambling screening criteria
- Frequent continuous gamblers (people who gambled weekly or more on forms of gambling such as electronic gaming machines or track betting) who did not meet problem gambling screening criteria
- Lifetime problem gamblers (as assessed by the South Oaks Gambling Screen-Revised)
- Probable pathological gamblers (as assessed by the South Oaks Gambling Screen-Revised)

Results indicated that in 1991, the percentage of respondents whose preferred form of gambling was Lotto or Instant Kiwi was 78% and 6% respectively for non-continuous gamblers, 50% and 12% for continuous gamblers, 34% and 11% for problem gamblers, and 36% and 8% for probable pathological gamblers. Monthly expenditure for all groups was NZ\$20 for Lotto and NZ\$5 for Instant Kiwi except for the probable pathological gambler Instant Kiwi players whose monthly expenditure was NZ\$8. Horse/dog gambling and non-casino electronic gaming machines also ranked as preferred forms of gambling for problem gamblers (18% and 13% respectively) with the former also ranking for probable pathological gamblers (36%) (Abbott et al., 1999).

Seven years later, in 1998, results indicated that the percentage of respondents whose preferred form of gambling was Lotto or Instant Kiwi was 63% and 3% respectively for non-continuous gamblers, 68% and 3% for continuous gamblers, 50% and 3% for problem gamblers, and 56% and 0% for probable pathological gamblers. Monthly expenditure for all groups was NZ\$20 for Lotto and between NZ\$2 to NZ\$5 for Instant Kiwi players. Horse/dog gambling continued to be another preferred form of gambling for problem and probable pathological gamblers at 18% and 26% respectively (Abbott et al., 1999).

In the 1999 national prevalence survey, 25% of non-problem gamblers' favoured form of gambling was Lotto compared with 13% of problem gamblers. Instant Kiwi was a favoured form for a similar percentage of problem and non-problem gamblers (6%). The most favoured forms of gambling for problem gamblers were horse/dog betting (26%) and non-casino electronic gaming machines (21%) compared with 10% and 4% respectively for non-problem gamblers (Abbott & Volberg, 2000).

These results indicate that although Lotto gambling was the preferred form for all types of gambler, it was slightly less so for problem and probable pathological gamblers, predominantly because other forms of gambling such as horse/dog betting or electronic gaming machines were a preferred form for a greater percentage of those respondents.

It should be noted here that the national prevalence surveys conducted in 1991 and 1999 both preceded the enactment of the Gambling Act 2003 which fully came into force on 1 July 2004. The Gambling Act brings changes to all forms of gambling including tough laws to control the growth of gambling (particularly electronic gaming machines) as well as strict policies to minimise the harm caused by gambling, and gives communities more involvement in decision-making about gambling. The Ministry of Health has flagged its intention to fund another national prevalence survey sometime in 2007-2009 (Ministry of Health, 2006b).

3.2.3 Access by under-age gamblers

There have been several studies which show that young people take part in gambling activities, even though they are below the legal age for participation in those activities. This indicates that gambling products do have an appeal to the younger age group, whether they are designed to or not.

A review by Griffiths and Wood (1999) details studies whereby young people under the age of 16 years (the legal limit to partake in the UK National Lottery) have successfully purchased lottery tickets and scratchcards, which indicates not only that the adolescents are buying tickets but that retailers are breaking the law by selling the tickets. Additionally, under-aged lottery participants have had tickets bought for them or given to them by parents or other family members or friends (Griffiths & Wood, 1999).

A strong correlation has been shown between parental and adolescent participation in the UK National Lottery and scratchcards, with a majority of the children having had their tickets bought for them by their parents (lottery: 71%, scratchcards: 57%) (Wood & Griffiths, 1998). Griffiths has also reported a significant relationship between parents buying scratchcards and the child's scratchcard purchasing behaviour (Griffiths, 2000). A similar finding was observed in a study of 1,000 youth aged 13 to 17 years in Oregon, USA where 50% of the young lottery players reported obtaining tickets from family members and another 35% reporting buying tickets illegally (Carlson & Moore, 1998).

In the previously mentioned UK National Lottery Commission survey of adolescents aged 12 to 15 years, seven percent of the participants reported illegally purchasing lottery products in the week prior to the survey with scratchcards being the most popular type of product purchased (45%). If an adult purchased a lottery product for an under-age player, this was deemed to have been a 'legal' purchase. Eighteen percent of participants had spent their own money on one of three lottery product types (scratchcards, lottery draw, Thunderball), with 40% of those participants making the purchase themselves or via another under-aged friend (Ashworth & Doyle, 2000). A follow up survey in 2000 (N=11,581) revealed a decline in participation due mainly to variations in the level of purchases made by parents on behalf of their children (Ashworth et al., 2000).

Additionally, in the previously mentioned survey of school-age children aged 10 to 18 years in the province of Ontario, Canada, it was reported that 21% occasionally (less than once a week) took part in lottery draws whilst 1.4% played regularly (weekly and daily). This was different from scratchcard playing whereby 51.5% occasionally played and 2.7% regularly played. There appeared to be a gender difference amongst the regular players with males more likely to participate in lottery draws and playing scratchcards than females. Participants reported initially playing lottery products to win money, because their parents play, and for enjoyment and excitement. These reasons continued in respect of maintenance of lottery play. Of those youth who reported purchasing any form of lottery product, the majority (83% males, 85% females) reported that their parents were aware of their lottery playing. Overall, 82% believed that their parents played the lottery. Of the sample of youth that indicated playing the lottery, 76.7% reported that their parents had purchased tickets (lottery draws, scratchcards) for them and 70% reported receiving a lottery ticket as a gift. Receiving lottery tickets as gifts was found to increase with age with boys receiving more sports lottery tickets and girls receiving more scratchcards. It is important to note that the minimum age for lottery playing in Ontario is 18 years. Therefore, those participants reporting playing lottery products were all under-age (Derevensky & Gupta, 2001; Felsher et al., 2003).

The Ontario survey was the third part of a three phase study; the first two phases consisted of five focus groups of participants aged 12 to 19 years (N=47), and the development and validation of an instrument to assess lottery playing and gambling behaviour (Derevensky & Gupta, 2001). In the focus group phases, a distinction was drawn between lottery *playing* and *purchasing* behaviour. Derevensky and Gupta report that the mean age of onset for the entire sample for playing lottery draws was 10½ years and for scratchcards was 10 years, whilst for purchasing lottery tickets it was approximately 13 years and for scratchcards was 12 years. Few difficulties were reported by the sample in purchasing tickets despite the legal restrictions and one third of adolescents reported going to a store specifically to purchase lottery tickets. Interestingly, 13% of participants reported returning to a store to purchase more tickets when they had won compared with only 2.2% returning if they had lost, i.e. 'chasing' wins was much more common than chasing losses (Derevensky & Gupta, 2001).

In Washington State, USA, the legal age for lottery gambling is 18 years. In 1999, a survey of adolescents aged 13 to 17 years (N=1,000) reported that six percent of 13 year olds had purchased lottery tickets within the past year whilst 21% of 17 year olds had done so. The researchers expressed a concern that lottery gambling could be an experience that encourages young people to engage in other types of gambling as well as other risk-taking behaviours such as illicit drug use (Volberg & Moore, 1999). A similar finding was noted in a telephone survey of 1,000 youth (aged 13 to 17 years) in Oregon, USA, where 39% had played the Oregon Lottery at least once and 30% had played in the past year. At least 50% reported obtaining tickets from family members and 35% bought tickets illegally (Carlson & Moore, 1998).

In South Australia, a survey of students aged 14 to 17 years (N=505, legal age for gambling = 18 years) reported that lotteries, scratch tickets and sports betting were the most popular forms of gambling with between five to seven percent of participants having a weekly involvement (Delfabbro & Thrupp, 2003). The study also found that adolescents who gambled more often had a greater likelihood of reporting family and friends that were approving of gambling and those adolescents who believed that their family and friends gambled a lot were more likely to be frequent gamblers.

There is very little robust information regarding lottery play by under-age gamblers in New Zealand. In a recent in-depth representative survey of adolescents (N=2,005) aged 13 to 18 years, from 12 schools, 45% reported playing Lotto, 65% reported playing scratchcards and seven percent reported playing daily keno, in the previous year. Of the students who had gambled (on any form) in the previous year, over half reported gambling with friends, siblings or parents. Over 60% of the students also recalled television advertising for lottery products. One of the conclusions from this study was that exposure to gambling (family members, peers, advertising) plays an important role in adolescent gambling behaviour (Rossen, 2005).

Felsher and colleagues argue that social modelling is a factor in youth lottery involvement, since a survey conducted by those researchers showed that social gamblers and younger individuals report playing the lottery primarily as a result of parental participation. However, as the adolescent participants also stated money as being a primary reason for beginning and continuing to play the lottery, Felsher and colleagues postulate that given the majority of people do not win playing, other enticing

properties must persuade people to continue investing their money on a regular basis (Felsher et al., 2003).

Since individuals model, learn and maintain behaviours that are observed, appealing and reinforcing (known as social learning theory), adults can often be significant models for adolescent gambling. In a survey of 477 children aged 9 to 14 years from Montreal, Canada, 86% who reported gambling regularly gambled with family members (Gupta & Derevensky, 1997). In a later study by the same researchers (N=817, aged 12 to 17 years) 65% of those who reported gambling, gambled with family members (Gupta & Derevensky, 1998). As previously mentioned, this could negatively impact on the future prevalence of problem gamblers since those adolescents who gambled with family members could be more at-risk for developing gambling-related problems in later life.

Appeal to under-age gamblers

The appeal of lotteries products to adolescents seems to be varied, though very little robust research is published examining this area.

In the United Kingdom, Wood and Griffiths conducted semi-structured focus groups with children and adolescents aged 11 to 15 years to identify why young people start gambling on lottery products and attitudinal factors that then maintain the gambling behaviour (Wood & Griffiths, 2002). They found that the main reason for playing the UK National Lottery and scratchcards was to win and obtain money, with a focus on the amount of money that could be won. However, some participants stated that they would not participate in lotteries gambling because the chance of winning money was not likely. The other reasons given for playing lottery products included elements of fun and excitement, and for socialisation, with participation often described as part of a pattern of regular family social life (National Lottery) or with peers (scratchcards).

Results from the Ontario adolescent survey previously detailed show that structural characteristics deemed most important by adolescents on scratchcards were the prize, cost of the ticket and type of game, with type of game reported to be one of the most important features in the selection of tickets (Derevensky & Gupta, 2001).

Clearly, lottery products do appeal to under-aged children and adolescents given the participation rates described earlier in this section. However, it is not possible to categorically state what the precise appeal is. The appeal probably varies according to a range of factors such as the age of the adolescent, parental and peer participation and attitudes towards gambling, ease of purchase (availability, accessibility and cost) as well as other factors such as those described above.

Key findings in this Section

General appeal

- Lottery products are appealing for a variety of reasons (international and New Zealand research)
- Lottery playing is the most popular form of gambling found amongst general population groups, with about two-thirds of any given population participating in lottery draws and a significant, though lesser, population purchasing scratchcards (international and New Zealand research)

Appeal to problem gamblers

- Some Lotto is a preferred form of gambling for all types of gambler but slightly less so for problem and probable pathological gamblers (New Zealand research)

Access by under-age gamblers

- Adolescents have successfully purchased and/or played lottery products despite being under the legal age to do so (international and New Zealand research)
- Adolescents are often given lottery products by family members or friends (international research)
- A strong correlation exists between parental and adolescent participation in lottery gambling (international and New Zealand research)

Appeal to under-age gamblers

- Lottery products (in particular scratchcards) have a definite appeal to a substantial proportion of children and adolescents, from as early an age as 10 years (international research)
- The appeal varies according to a range of factors (international research)

3.3 The role of lotteries marketing

This section details research and studies regarding the role of lotteries advertising and marketing and the influence this can have on peoples' decision to take part in lottery gambling. This is followed by a brief discussion of peoples' attitudes and beliefs regarding lottery products and lotteries gambling and is concluded with a comment regarding marketing and problem gambling. The research presented is heavily weighted towards studies conducted in New Zealand, the United Kingdom and Canada, since these are the only jurisdictions where substantial research in this area has taken place.

3.3.1 Advertising and marketing

There are certain characteristics of the marketing of a gambling product that encourage people to purchase that product. These are termed 'situational characteristics' and include the location and number of gambling outlets and the use of advertising of the gambling product. Situational characteristics play a major part in lotteries gambling since they are often heavily advertised in popular forms of media such as television and national press and outlets are also available in numerous day-to-day locations such as newsagents, petrol stations and convenience stores. These situational characteristics have been critical in the success of lotteries (Griffiths & Wood, 2001).

As well as direct advertising of lottery products, televised lottery draws are a major form of advertisement for the product. Both highlight the possibility that the viewer could be a winner. Often the advertisements imply a chance of winning the jackpot and televised shows may feature the previous winner. This type of advertising can make a person believe that winning is within the realms of possibility. However, the actual probability of winning a jackpot is not usually a feature of such advertising.

Television coverage of lottery draws may influence lottery play. In their overview of European lottery gambling, Griffiths and Wood detail that the weekly televised draw of the UK National Lottery is routinely watched by adolescents under the legal age for participation, with the explanation for this including the early schedule of the programme as well as the celebrities and pop stars who participate. They speculate that advertising for the National Lottery and scratchcards is persuading viewers that gambling is normal and by implication that children are growing up to believe gambling to be socially acceptable (Griffiths & Wood, 1999).

In New Zealand in 2000, the majority of participants (89%) from a national survey of 1,500 people aged 15 years and over could remember seeing or hearing some form of gambling advertising in the previous 12 months, with most recalling seeing lotteries advertisements (Lotto, daily keno, scratchcards). The percentage of people who recalled seeing a Lotto advertisement (84%) was almost identical to the percentage of people playing the game. People in the 15 to 54 year age groups were the most likely to recall seeing all forms of gambling advertising (Amey, 2001).

A more recent market research survey of 1,056 participants aged 16 years and over showed that lottery promotions were a key motivator for Lotto players aged less than 40 years (Fast Forward Future Marketing, 2004).

In the previously mentioned UK National Lottery Commission survey of adolescents aged 12 to 15 years, it was reported that at least 24% of the participants had watched a televised lottery draw show the 'last time it was on' with at least 27% of those watching the previous show spending their money on a game in that past week, compared with 18% of the sample as a whole. However, no conclusion could be drawn as to whether viewing the show increased the likelihood of participation, or vice versa (Ashworth & Doyle, 2000). A follow-up survey (N=11,581) the next year showed a slight decrease in the percentage of participants watching a televised show 'the last time it was on' (at least 19%) with 23% of those making a previous week purchase (Ashworth et al., 2000), indicating that the appeal of the programmes in their current format may have been on a decline.

Familiarity with the lottery product could also be a factor in its purchase. The previously detailed Ontario adolescent study showed that under-age youth reported seeing lottery advertisements on television, billboards and in the print media. However, whilst 39% of the adolescents reported they would be more likely to purchase a ticket because they had seen the advertisement, they indicated they would not necessarily purchase the ticket being advertised. Older adolescents (15 to 17 years) reported being more susceptible to advertisements (Derevensky & Gupta, 2001). Promotion of lottery sales at convenience stores may also have special appeal for youth. Derevensky and Gupta reported from their study that the majority of adolescents were more likely to purchase a ticket displayed on the check-out counter of the store, reported by a larger percentage of males than females, and with increased purchases with increased age (Derevensky & Gupta, 2001).

In an exploratory study, Korn and colleagues examined the impact of commercial gambling advertising on the knowledge, attitudes, beliefs and behavioural intentions of youth in Ontario, Canada. In Ontario, lotteries are not covered by the regulations on commercial gambling advertising. In the study, a sample of 29 advertisements (from over 450 advertisements reviewed) was shown to 63 adolescents aged between 13 to 17 years, in age-matched focus group settings. The authors report that youth tend to consider gambling a normal behaviour and that they see lotteries as the dominant form of legal gambling; lottery advertisements were familiar and appealing to young people with taglines and slogans also familiar. The adolescents in the study reflected intentions to continue to gamble informally and to purchase lottery tickets and tended to view legal prohibitions as only marginally relevant, i.e. most intended to gamble despite the age limits and the understanding that a significant win was unlikely. In addition, the older youth (15 to 17 years) reported that they felt able to manage gambling risks but that younger people (aged less than 15 years) might not be able to (Korn et al., 2005).

It would appear, therefore, that lotteries advertising and marketing can and does have an impact even if it is merely a recall of the advertisement. From the studies presented, there is some evidence that advertising and marketing may also impact on player

behaviour by increasing participation to some extent, at least amongst adolescents and younger adult players.

3.3.2 Attitudes and beliefs

The availability of lottery gambling appears to be socially acceptable. The reasons for this are multi-faceted and may include the 'feel good' factor of gambling proceeds being directed to worthy/charitable causes as well as a perception that playing the lottery may not really be gambling.

Two relatively recent studies support the 'feel good' factor regarding lotteries. In Georgia, USA, a state-wide survey indicated that 78% of respondents supported the lottery mostly because proceeds go towards educational programmes (McCrary & Pavlak, 2002). Whilst there is no comparable data from New Zealand, in a general population survey conducted in 2000, 92% of participants were in favour of gambling activities being run to raise funds for worthy causes; this would include lottery products (Amey, 2001). However, in Phase Two of the 1999 national prevalence survey, only 2.2% of participants stated that they took part in Lotto to support a worthy cause, with the main reasons for participating being to win prizes/money (26.5%), because it was convenient (13%) and because it was easy to play (14.7%). For Instant Kiwi, no participants played to support worthy causes with the main reasons for playing being because it was cheap to play (20.9%), for entertainment (14.4%) and because it was quick to play (10.5%) (Abbott, 2001a). It is to be noted that Lotto and the Instant Kiwi scratchcard decreased in perceived social undesirability over time (19% in 1985³ to 12% of participants in 2000 for Lotto; 16% in 1990 to 10% in 2000 for Instant Kiwi), with these activities perhaps, therefore, becoming more acceptable. This is in contrast to the desirability of electronic gaming machines whereby 38% of participants in 1985 considered them to be socially undesirable, rising to 45% in 2000 (Amey, 2001).

A study in the United Kingdom examining young people's attitudes and beliefs concerning the lottery revealed that the majority of participants (N=1,195) thought that the lottery was a good idea (76%) and that scratchcards were a good idea (57%). Of the 72% of participants who thought that gambling per se was a bad idea, almost half (49%) thought that the lottery was a good idea and a third suggested that scratchcards were a good idea. There were no gender differences. This seems to imply that young people might not actually perceive the UK National Lottery or scratchcards to be a form of gambling (Wood & Griffiths, 1998). This is consistent with a telephone survey of 2,500 adults in Ontario, Canada in which only 70% and 72% of participants considered lotteries and scratch tickets, respectively, to be gambling (Turner et al., 2005). In the previously detailed exploratory study conducted by Korn and colleagues, some of the adolescent participants thought that participation in lotteries (including scratch tickets) was a less serious form of gambling or less associated with gambling (Korn et al., 2005).

³ Lotto in its present numbers game format was introduced to New Zealand in August 1987. Prior to that existed the Golden Kiwi Lottery which was actually a form of national raffle; Golden Kiwi was phased out in 1989.

These attitudes and beliefs could be related to the availability of lottery products which, unlike other forms of gambling that take place in easily identifiable establishments, are widely available in popular and respectable general outlets such as post offices and supermarkets (Wood & Griffiths, 2004). For adolescents, availability of lottery products is also influenced by the availability in the family home or amongst peer groups. In the UK survey, it was reported that 48% of the adolescents played the lottery and 30% played scratchcards, either directly themselves or with family and/or friends. Twenty-one percent of lottery participants and 25% of scratchcard players reported that they expected to win a significant amount of money one day. This suggests that either the adolescents perceive a high degree of behavioural control over these activities or that they are ignorant of the true odds of winning (Wood & Griffiths, 2004).

However, a later study conducted by Wood and colleagues with 62 adolescents aged between 11 and 15 years and using a Q-sort methodology, reported that most of the generated accounts viewed the National Lottery and scratchcards as bona fide forms of gambling with an awareness of negative effects of gambling and the unlikelihood of winning large amounts of money. The study also indicated that many parents may now hold a more negative view of the lottery. The authors speculated that the change in awareness, attitudes and perceptions regarding lottery products since their previous study in 1998 may have been a response to their previous research and the ensuing media coverage (Wood et al., 2002).

Results from the UK national survey also indicated that there was a resistance to change and new games with the feeling that there were too many National Lottery products available. There also appeared to be a resistance to purchasing tickets in innovative ways such as via the telephone or internet (Sproston, 2002).

3.3.3 Marketing and problem gambling

There is very little available rigorous research in terms of the marketing of lottery products and the impact that it may, or may not have, on problem gambling. The only study reporting this is the previously mentioned survey of Ontarian school-aged adolescents. In that study, it was noted that youths with gambling problems frequently reported having a favourite type of scratchcard. These youth reported being most susceptible to, and influenced by, lottery advertisements and were more likely to purchase a ticket because of the advertisements. Placement of scratchcards on the check-out counter was reported to be most enticing to adolescents with gambling problems (Derevensky & Gupta, 2001; Felsher et al., 2004a). This single example indicates that, at least amongst adolescents in Canada, the marketing of scratchcards may influence purchasing behaviour by problem gamblers.

Key findings in this section

Advertising and marketing

- Lottery products are often heavily advertised in popular forms of media such as television and national press (including in New Zealand)
- Lottery products are easily available in numerous day-to-day locations (including in New Zealand)
- Televised lottery draws are a major form of advertisement
- Televised coverage of lottery draws may influence lottery play (international research)
- Lottery advertisements are often recalled by the general population (international and New Zealand research)
- Advertising and marketing may impact player behaviour, especially amongst adolescents and younger adult players (international research)

Attitudes and beliefs

- The availability of lottery products is generally seen to be socially acceptable (international and New Zealand research)
- Some people do not consider lottery playing to be a true form of gambling or consider lotteries to be a less serious form of gambling (international research)

3.4 Internet and electronic lotteries products

Under the Gambling Act 2003, remote interactive gambling⁴ is prohibited. The prohibition is on remote interactive gambling in New Zealand and thus does not prohibit gambling conducted overseas. There are two exceptions to this general rule:

- Sales promotions in the form of a lottery and conducted in New Zealand are excluded from the ban on remote interactive gambling
- The Lotteries Commission and the Racing Board can conduct approved forms of remote interactive gambling

(Gambling Act 2003, Fact Sheet 27, available at [http://www.dia.govt.nz/Pubforms.nsf/URL/FactSheet27.pdf/\\$file/FactSheet27.pdf](http://www.dia.govt.nz/Pubforms.nsf/URL/FactSheet27.pdf/$file/FactSheet27.pdf))

This section covers a brief description regarding general internet gambling, and is followed by a description of the differences between internet and traditional gambling. It is concluded with comment on lottery internet and electronic gambling including the use of mobile phones to conduct internet gambling.

3.4.1 General internet gambling

The internet is a feature of modern life that is rapidly expanding. Already numerous casino gambling, sports betting and lottery games are available on internet sites. Bellringer has estimated that there are over 2,000 internet gambling sites currently available on-line (Bellringer, 2006). It is likely that this number will continue to grow rapidly, at least over the next few years as technologies enable the inclusion of financially secure sites. Some population groups are much more likely to have internet access than others with, for example, university students particularly likely to have access not only to computer terminals but also to the new generation mobile phones that allow access to the internet.

In a recent survey report published by the American Gaming Association, it was estimated that four percent of US residents gamble on-line. The reported profile of on-line gamblers was that more than two thirds were male with nearly 70% aged less than 40 years and almost 20% earning more than US\$100,000 per annum. The most popular forms of on-line gambling were internet poker (80%) and casino games (78%) (American Gaming Association, 2006). Internet lottery playing did not feature but this may have been because the question was not asked. However, 73% of respondents reported playing non-internet lottery games.

A number of governments, including that of New Zealand and various states in the USA, have attempted to control access to internet-based gambling whilst others (especially in Europe) have passed legislation permitting it. Prevalence surveys in a number of countries have found that regular internet participation is currently confined to a small percentage of the population (Welte et al., 2004). However, this is already

⁴ Remote interactive gambling includes gambling by a person at a distance by interaction through a communication device. Communication devices include computers, telephones, radios and similar devices.

starting to change, for example with the current 'craze' for internet poker; a big feature amongst (generally) male American university students.

3.4.2 Differences between internet and traditional gambling

Since internet gambling is a very different way to gamble from the traditional requirement to physically visit a gambling venue, there are issues specific to internet-gambling that do not arise in the more traditional gambling settings. Smeaton and Griffiths summarise areas of concern that differentiate internet gambling from traditional forms of gambling. They suggest that unlimited access to gambling (24-hours a day, every day) has the potential to lead to excessive gambling behaviour, could lead to children being exposed to gambling and gives adults control over letting children participate in gambling. Their points of concern include:

- Some accepted forms of payment (such as debit cards) at internet gambling sites do not indicate that a customer is of a legal age to gamble unless stringent checks are made on each new customer
- The perception of the value of money diminishes when playing with electronic cash and could increase the risk of excessive gambling
- There is no control over those who might be gambling under the influence of alcohol or other drugs
- Internet gambling could shift a social activity into an asocial one, which could lead to greater risk of problem gambling, and any possible intervention will be extremely limited due to lack of personal contact with the customer
- The customer may be at risk from offshore, unregulated and disreputable internet gambling sites unless able to differentiate between such sites and socially responsible, regulated and reputable ones

(Smeaton & Griffiths, 2004).

However, research is required to monitor internet gambling usage and identify links between usage and problem gambling in different sectors of the population.

It should also be noted that the use of the internet as a medium for gambling has the potential for technological safeguards to be established that minimise the potential for harmful or excessive gambling. This would, however, rely on the internet gambling provider having the social responsibility to establish those safeguards. By being a member of a group such as the U.K's Remote Gambling Association could provide some reassurance to internet gamblers that they are accessing a remote site that takes social responsibility seriously. The Remote Gambling Association highlights various codes of practice and conduct on their website, in relation to internet gambling (<http://www.rga.eu.com/index.html>).

3.4.3 Lottery internet and electronic gambling

In a review on public policy and gambling, Pavalko mentions that the first authentic internet lottery gambling site was established in 1993 - the Swiss Lottery (Loterie Romande). By 1999, he reports that there were almost 500 internet gambling sites of which 64 were lotteries and that by 2001 there were three times that many internet

gambling sites (Pavalko, 2004). As previously mentioned, Bellringer (2006) estimates that there are now over 2,000 internet gambling sites, so the number of internet lottery sites has undoubtedly increased too. An internet search via Google indicated that there are at least 108 links to internet lotteries currently accessible.

The UK National Lottery, which is the largest lottery operator in the European Union, allows interactive sales through the internet, interactive television and mobile phone text messaging. Several other European countries also allow internet lottery gambling (weekly/twice-weekly draw and, in some instances, scratchcards) including Austria, Belgium, Finland, France, Ireland, Slovenia, Spain and Sweden (European Commission, 2006). They direct their internet products to residents of their own countries. In Canada, the Atlantic Lottery Corporation allows on-line lottery sales in Nova Scotia, Prince Edward Island, Newfoundland, Labrador and New Brunswick. The British Columbia Lottery Corporation, Canada offers on-line sports betting, lottery products and keno (Stewart, 2006). Sports betting is documented on the South African and Spanish lottery websites with the latter allowing internet betting.

Remote interactive gambling need not necessarily be conducted whilst sitting in front of a computer terminal or laptop since new generation mobile telephones also have the capability to link to the internet. This makes the internet extremely mobile and accessible from a wide range of previously restricted locations. According to the Telecom Asia (2006) website, mobile phone gambling could be one of the big revenue drivers for mobile data services in the next five years since mobile lotteries do not need 3G networks and are applicable in developing as well as developed markets. Current lottery mobile gambling opportunities include:

- SMS messaging to enable mobile users to play draw-based lottery games via SMS (Camelot, UK National Lottery)
- SMS messaging to a premium rate number to request a scratchcard (Sperospel, Swedish lottery)
- SMS or WAP to buy lottery tickets or to bet on football matches/horse racing (Hong Kong)

(Available at www.telecomasia.net/telecomasia/article/articleDetail.jsp?id=322050)

Remote gambling also includes interactive, digital television which can offer events and race betting as well as betting on numbers games (Bellringer, 2006).

An internet 'Google' search did not immediately reveal any 'new' lottery products available on the internet or via electronic media.

Key findings in this Section

General internet gambling

- There are over 2,000 internet gambling sites
- Some population groups are more likely to have internet access than others
- Only a small percentage of the general population currently gambles on-line (international research)
- A number of governments have passed legislation to control access to internet gambling (including New Zealand) whilst others have passed legislation permitting it

Continued overleaf

Key findings in this Section - continued

Differences between internet and traditional gambling

- There is no control over age of player with some forms of electronic payment
- The perception of the value of money is diminished when playing with electronic cash
- There are no controls over other factors such as alcohol or drug use whilst gambling
- Internet gambling can be an asocial activity
- There are unregulated and disreputable gambling sites available on the internet
- There is the potential for safeguards to be put in place

Lottery internet and electronic gambling

- The first authentic internet lottery site was established in 1993
- By 1999 there were 64 internet lottery gambling sites, by 2006 there appear to be over 100 internet lottery gambling sites
- Many European countries and Canadian states allow internet lottery gambling (weekly/twice-weekly draw tickets, scratchcards and keno); the UK National Lottery is the largest site
- Remote interactive gambling can be conducted via mobile telephones using text messaging (SMS) or WAP capabilities
- Remote interactive gambling can also be conducted via interactive digital television
- Information regarding 'new' lottery products available on the internet was not found

3.5 Policies, programmes, codes of practice and corporate social responsibility

Corporate social responsibility can be defined as a business's comprehensive approach taken to meet or exceed the expectations of stakeholders, which include consumers, owners, investors, government, suppliers and employees. The key areas of corporate social responsibility are generally deemed to be community investment, human rights and employee relations, environment practices and ethical conduct.

Responsible provision of gambling is an issue that is becoming more prominent as the types and availability of gambling expand. In New Zealand, it became paramount with the introduction of the Gambling Act 2003, one of the key purposes of which is to 'facilitate responsible gambling'; others include 'control the growth of gambling' and 'prevent and minimise the harm caused by gambling, including problem gambling'.

The Independent Pricing and Regulatory Tribunal of New South Wales, Australia considers it important that a coherent and integrated responsible gambling policy framework should be developed, based on the following three strategies to encourage a culture of responsibility:

- Promoting informed choice (to make known the risks and foreseeable consequences of excessive gambling and to provide adequate information on which decisions can be based in relation to gambling, including encouraging people to take responsibility for their gambling)
- Protecting gamblers to discourage risky behaviours and reduce the prevalence and negative consequences of problem gambling (including mandatory and voluntary harm minimisation measures)
- Providing counselling services to problem gamblers and their families and friends to reduce the negative impacts of their gambling behaviour (i.e. appropriate treatment of a minimum acceptable standard available to people who have gambling associated problems)

(Independent Pricing and Regulatory Tribunal of New South Wales, 2004)

Furthermore, the Tribunal recommends that the gambling industry:

“should contribute to a culture of responsibility by providing gambling services and products that are as safe as feasibly possible, in venues that encourage responsible gambling. They should ensure that the attitudes of all personnel associated with venues, from Board members to venue staff, are consistent with such a culture. They should also adopt ethical practice and governance systems that are consistent with a responsible culture” (Independent Pricing and Regulatory Tribunal of New South Wales, 2004).

For lotteries in particular, the Tribunal recommends that it should not be suggested that winning is a *definite* outcome and it should not be suggested that gambling *will definitely* improve financial prospects.

The World Lottery Association (WLA) which is an international member organisation representing 136 lotteries from 74 countries (including the New Zealand Lotteries Commission) on all five continents, is hoping to establish world-wide best practice in corporate social responsibility and responsible gambling. In February 2006, the WLA

adopted of a set of seven responsible gambling principles, with WLA members committing to making responsible gambling an integral part of their daily operations (available at www.world-lotteries.org). This represents the beginnings of a global, multi-jurisdictional standard for lottery corporate social responsibility. What remains to be seen is how stringently the members of the WLA implement the responsible gambling principles and also how effective they are in reducing the potential harms from lottery gambling. WLA members are developing a framework for implementation of the responsible gambling principles, which will include clear benchmarks and a structured methodology for measuring a lottery's responsible gambling performance (WLA magazine, 2006).

It has become clear whilst conducting the search for literature for this report that different jurisdictions have very different ideas as to policies and requirements for corporate social responsibility; often different jurisdictions within countries each have their own regulations. It has also proved difficult to access actual policies in relation to lottery products.

The remainder of this section discusses general policy enforcement and social responsibility in relation to lottery gambling, with a focus on the lottery corporations that stand out (based on accessible information) in terms of their commitment to reducing/minimising the potential harms to participants of lottery product gambling. The section ends with a short comment regarding internet gambling and social responsibility. This section overlaps with Section 3.6 on responsible gambling educational programmes and materials, which tackles some of the discussion in this section in more detail.

3.5.1 Policy enforcement and social responsibility

It is clear from the research described in the previous pages that adolescents under the legal age limits⁵ for playing lottery products have access to these products by various means and do play them. Lottery products also appear to be one of the popular gambling activities for adolescents to partake in, for a variety of reasons, not least being the appeal (through advertising and television coverage), accessibility, availability, simplicity of play and relatively low stakes. Children as young as 10 years of age have reported playing lottery products. The research has also shown the potential for lottery playing to lead to problem gambling, especially amongst the adolescent population. This obviously will have short-term consequences, though further, longitudinal research is required to ascertain the long-term effects on gambling behaviour and problem gambling.

Felsher and colleagues in a discussion on social policy implications suggest that greater societal awareness regarding the number of youth accessing lottery products and other gambling venues, and the potential harm of such products should lead to stricter enforcement of current laws. They also suggest that governmental acknowledgement of youth gambling problems may generate more vigorous and effective methods for discouraging lottery play by under-age youth (Felsher et al., 2004b). Where such

⁵ In New Zealand, currently the only lottery product with a legal age limit is the Instant Kiwi scratchcard (legal age limit 18 years); other products such as Lotto have no legal age limit.

statutes do not exist, it may be pertinent for policy makers to consider passing legislation such as age restrictions for purchase and participation. However, enforcement of policies is contingent upon the acceptance of the implemented practices and regulations within the community and the perceived severity of problems associated with a particular behaviour. If a form of gambling is generally perceived not to be ‘gambling’ or not harmful, as may be the case with lottery gambling, this may account for the ease with which under-age youth purchase lottery tickets despite legal prohibitions (Felsher et al., 2003).

Other options discussed by Felsher and colleagues include reducing accessibility of lottery products to youth (e.g. by moving them to under the counter rather than on the counter) and restricting venues that are close to schools. They also recommend prevention programmes at elementary school level with school administrators, members of psychological services and teachers being made aware of the growing problem. They suggest that any prevention programme should also be accompanied by a public awareness programme encouraging parents and adults to be aware of the types of gambling-related problems experienced by adolescents (Felsher et al., 2004b). Since adolescents have been shown to be influenced by lottery products advertisements, they recommended that strict advertising guidelines should be established by the regulatory bodies. Advertisements that inform and sensitise adolescents to addictive behaviours may be beneficial and should be implemented (Derevensky et al., 2004).

Griffiths conducted an overview of the small literature on gambling and advertising and concluded that socially responsible advertising should be one of the elements of protection afforded to customers. He further recommends that children and problem gamblers should have additional shielding from exposure to gambling products and premises and their advertising (Griffiths, 2005), though he does not elaborate on the nature of this shielding. Griffiths also states that “there are precedents that advertisements for the promotion of gambling, especially government run lotteries, should perhaps be placed in the same category as alcohol and tobacco promotions because of the potentially addictive nature of gambling and the potential for being a major health problem”.

From a scan of websites and available literature it is immediately apparent that different lottery organisations view corporate social responsibility in different ways. Some appear to take the minimal possible approach whilst others appear to be more committed to reducing the potential harms from lottery products. A few of the lottery organisations in the latter category are detailed below and overleaf and include North American and European lotteries.

However, different people have different perceptions regarding the meaning of social responsibility. According to the Chief Executive’s welcome in the Camelot (UK National Lottery) social report 2005: “Our strategy is to grow sales in a socially responsible way. We have not increased the price of a Lotto ticket - still a pound to play more than 10 years after we launched” (Camelot, 2006). The socially responsible aspect of this statement is tenuous given that one of the appeals of lottery products is the low stake; it could also be a reason why lottery products are attractive to adolescents. Despite that aspect, in other areas of social responsibility, Camelot appears to be strongly committed (see overleaf).

Camelot

Camelot (UK National Lottery) has been praised by the UK Government for developing a website with a system that successfully prevents under-age people from accessing their internet products. This system has received GamCare⁶ accreditation though implementation of the GamCare Code of Practice of Online Lotteries via:

- Age verification systems
- Customer led limits on play
- Self-exclusion options for players
- Information about responsible gambling and sources of advice and support
- Training for customer services in problem gambling and social responsibility
- Consultation with GamCare when developing new technologies and products
- Support for the work GamCare carries out in addressing the social impact of gambling

(www.national-lottery.co.uk)

Camelot also has a strong focus on preventing under-age gambling with a range of measures on their website and in retail outlets. Camelot has been iAC-accredited⁷. Since 1999, they have also operated their own test purchasing programme ('Operation Child') which can identify retailers selling lottery products to underage purchasers. According to the National Lottery website, to date, a total of ten terminals has been removed as part of Operation Child (www.national-lottery.co.uk).

In addition, to minimise gambling harms, Camelot uses a risk matrix called Game Design Protocol which was designed in partnership with universities and charities. It is used to assess potential new games in regard to risks for vulnerable groups - if a product appears to be risky, it is revised, the marketing of the product is reviewed or the product is not launched (Camelot, 2006).

Oregon Lottery

The Oregon Lottery, USA, has a strong commitment to corporate social responsibility. Their Strategic Plan, Business Plan and annual budget work together and take into account the potential impact of game decision on problem gambling. One of the strategic objectives is to minimise the potential impact of lottery games on problem gamblers. This is achieved by:

- Factoring in the potential impact on problem gambling behaviour when selecting or designing games and game features
- Making a substantial investment in providing public information about problem gambling and available treatment including ongoing training of retailers regarding intervention and warning signs
- A marketing campaign to educate about problem gambling and available treatment, and the introduction of a moderation campaign in 2006
- A women's problem gambling campaign to reach more of the female population

(Oregon Lottery, 2006a).

The total 2006 budget for treatment support, responsible gambling support and problem gambling web support is nearly US\$4,000,000 (Oregon Lottery, 2006b). However, it

⁶ GamCare is the UK's primary problem gambling treatment provider.

⁷ iAC (interactiveAgeCheck) is a scheme offering users reassurance that websites displaying the iAC Protection Mark authenticate the age and identity of all their users.

should be noted that the Oregon Lottery is one of the few in the United States that also operates a large network of video poker machines.

Manitoba Lottery Corporation

The Manitoba Lottery Corporation (MLC), Canada has a long history of being proactive in the area of responsible lottery ticket gambling. They are currently partnering with the Addictions Foundation of Manitoba (problem gambling prevention, education, treatment and helpline provider) in the implementation of an innovative training initiative aimed at providing ticket lottery retailers in Manitoba with practical information about responsible gambling. It is believed to be the first such project of its kind in Canada. The primary training objectives are to:

- Help lottery retailers understand and promote responsible gambling
- Increase adherence to MLC regulations (especially regarding sales to minors)
- Increase knowledge of how lottery products work (odds, randomness, cost of play) so retailers can provide accurate information to customers
- Increase knowledge of resources available for problem gamblers
- Provide a range of communication strategies to use with customers

A central component of the programme is a soon-to-be-launched player information booklet designed to provide lottery players with factual information about how lottery products work (odds, randomness), responsible gambling tips and signs of problem gambling. Lottery retail outlets will be encouraged to actively refer players to this booklet. The 90-minute training will be focused on managers and owners of ticket lottery outlets and is likely to be made mandatory. Additionally, responsible gambling training and an orientation to the player information booklet will occur as part of the ticket terminal training that lottery ticket centre staff must take. The training will be provided by staff of the Addictions Foundation of Manitoba; the training was developed in partnership with MLC. It will be offered province-wide (Mehmel, 2006; personal communication).

Finnish Lottery (Veikkaus)

In 2004, Veikkaus, the Finnish lottery, founded a unit for issues related to social responsibility and established a social responsibility steering committee. In their 2004 and 2005 annual reports, it is stated that one of the ways that they are socially responsible is that their entire profit is used to benefit the Finnish society (such as sports, arts, science and youth work). They detail odds of winning on their website and ensure that game rules are available at retail outlets free of charge. However, as well as these relatively minimal operations, Veikkaus has more substantial guidelines such as:

- Retailer training on problem gambling; after training the retailers are expected to be able to recognise problem gamblers
- Prohibition of marketing targeting vulnerable groups such as children
- Age restrictions of 15 years at point of sale and 18 years for internet gambling
- Stake and daily limits in games with high event frequency
- Prevention of playing on credit
- Prevention of playing at night (after 10.00 pm)
- Cooperation with other national gambling organisations to prevent problem gambling
- Cooperation with the two problem gambling service providers

- The establishment of an ethical council that has a brief to consider the games, marketing and problem gambling
(Veikkaus, 2005, 2006)

New Zealand

The New Zealand Lotteries Responsible Play Code of Practice details promotion of responsible play practices (including a training and development programme for retail agents and staff), responsible marketing (which includes a policy that does not give false impressions about the odds of winning and does not target under-age players), and responsible play and service delivery. The Lotteries Commission is also bound by the Advertising Standards Authority's Code for Advertising Gaming and Gambling, which is designed to ensure that advertising of gaming will be conducted in a manner that is socially responsible and does not mislead or deceive the consumer. Additionally, the "Responsible Gaming Guidelines for the Development, Marketing and Retailing of Instant Kiwi Tickets" Code (developed internally by the New Zealand Lotteries Commission) is followed. In New Zealand Instant Kiwi tickets are only sold via a face-to-face transaction, i.e. the purchaser physically interacts with a retailer when buying the ticket. This is not the case for other international jurisdictions where, in some instances, scratchcards can be bought via a dispenser.

3.5.2 Internet gambling

Internet gambling brings with it a whole new level of social responsibility due to the inherent differences between this mode of gambling and traditional gambling. It has been suggested by Smeaton and Griffiths that the following good practice should be applicable to internet gambling sites:

- Age checks should be compulsory for all new accounts with this clearly displayed in the rules and regulations section and with the age verified before acceptance (to prevent people lying about their age)
- If age cannot be verified then methods of payment should be limited to credit cards as other forms of payment such as debit cards are often available to adolescents aged under 18 years
- Customers should have the option to set credit limits before playing - these limits should be easy to set up but harder to change; there should also be self-exclusion facilities that are enforceable for at least six months
- References to controlled gambling and where to find help should be clearly visible on the homepage of the site and the account details page
- After any bet is placed the customer should have the option to confirm or decline the bet, i.e. have the chance to change their mind; customers should also not be encouraged to play on
- Practice modes (simulators) should only be available to those over the legal age for gambling or should at least carry responsible gambling messages, helpline numbers and warnings that winning in practice sessions does not mean that winnings will necessarily occur when playing for money

(Smeaton & Griffiths, 2004).

In New Zealand, only small numbers of people participate in internet gambling activities (Amey, 2001). For those people, the Gambling Act 2003 could be somewhat

of a protective factor in terms of problem gambling since the legislation prohibits remote interactive gambling and the advertising within New Zealand of overseas-based gambling. However, as previously noted, there are exemptions in that sales promotions in the form of a lottery and conducted in New Zealand are excluded from the ban on remote interactive gambling, and the Lotteries Commission and the Racing Board can conduct approved forms of remote interactive gambling. A further limitation to the protectiveness factor of the legislation is that the prohibition is on remote interactive gambling *conducted in New Zealand*. Thus, it would be legal for someone in New Zealand to participate in internet gambling on an overseas website (Gambling Act 2003, Fact Sheet 27, available at [http://www.dia.govt.nz/Pubforms.nsf/URL/FactSheet27.pdf/\\$file/FactSheet27.pdf](http://www.dia.govt.nz/Pubforms.nsf/URL/FactSheet27.pdf/$file/FactSheet27.pdf)).

Key findings in this Section

- The World Lottery Association, representing 126 lotteries from 74 countries (including New Zealand), has adopted a set of responsible gambling principles

Policy enforcement and social responsibility

- Lottery products appeal and are accessible to adolescents and children; greater societal awareness regarding this fact and its potential harms is required
- Policies need to be in place and enforced, to be effective
- Strict advertising guidelines are required, especially in relation to adolescents and children
- There are different perceptions as to the meaning of social responsibility
- Most lottery corporations have adopted at least minimal approaches to responsible gambling, others have adopted more stringent approaches (e.g. Camelot (UK National Lottery) Oregon Lottery, Manitoba Lottery Corporation, Finnish Lottery - Veikkaus, New Zealand Lotteries Commission)

Internet gambling

- Internet gambling requires social responsibility procedures specific to that mode of gambling
- The New Zealand Gambling Act 2003 protects its citizens to some extent, regarding internet gambling

3.6 Responsible gambling educational programmes and materials

The focus of this section is on current responsible gambling initiatives in regard to lottery products from various jurisdictions around the world.

As has been previously discussed, adolescents appear to be more at risk of harms from lottery products than other population groups. It may be that adolescents do not perceive participation in lottery products, such as weekly/twice-weekly lotteries and scratchcards, to be gambling. Therefore, a first step may be to dispel this myth and promote these products as valid forms of gambling. Parental education could be important in this regard given the high level of encouragement given by parents to adolescents, regarding lottery gambling (e.g. by encouraging/allowing the gambling and/or by buying tickets for the adolescent).

Televised draws and advertising of lottery products have made lotteries gambling socially acceptable and attractive to adolescents. Participation is not required to watch the draw, which seldom shows the odds of winning but does advertise the amount that has and, theoretically, can be won. These televised draws also often show how lotteries money benefits the community, i.e. there is often a focus on the ‘social good’, building up the charitable purpose of lotteries without spelling out the social consequences of excessive play or other facts such as the odds of winning or that the money available for charitable purposes is actually other people’s losses.

3.6.1 Current responsible gambling initiatives

A review of accessible information regarding lottery corporations in various jurisdictions has revealed that responsible gambling initiatives vary considerably.

North America

The North American Association of State and Provincial Lotteries website details information on lottery providers in North America (www.naspl.org/support.html). Much of the following information for North American jurisdictions has been obtained from this website.

Publication of helpline numbers on websites and lottery tickets appears to be a common theme. In addition, messages such as Arizona’s ‘Please Play Responsibly’ may be posted on websites, ticket machines and dispensers and in advertisements (print, radio, television). This type of message and variations of it are commonplace. Some states such as Florida and Georgia broadcast ‘Play Responsibly’ radio advertisements at times when lottery jackpots are high. A reminder about age restrictions may be placed in retail locations such as Atlantic Canada’s ‘Age of Majority’ signs.

Other lottery providers take a more active approach to responsible gambling. Atlantic Canada, for example, has introduced a comprehensive ‘Responsible Gaming Retailer Training Program’ for video lottery site-holders and ticket lottery retailers. The programme provides information and training on how to identify problem gamblers and how to help to connect them to community resources and problem gambling helplines.

The British Columbia Partnership for Responsible Gambling is an alliance of the British Columbia Government, the British Columbia Lottery Corporation (which is responsible for the conduct and management of all commercial gambling in the province other than horse racing) and other gambling service providers. Their responsible gambling strategy includes an 'Appropriate Response Training' programme for gambling industry staff and a responsible gambling website which details responsible gambling and problem gambling issues, activities and initiatives (www.bcresponsiblegambling.ca). Advertising and marketing standards are also in place.

The Kentucky Lottery Corporation has developed and implemented an anti-youth gambling programme called 'Not 18? No Way! No Play!' The programme includes messages at point-of-sale as well as television spots. The Missouri Lottery also has an under-age gambling prevention programme with reminders of the age limit detailed on stickers on lottery on-line terminals and vending machines, and with the latter strategically located to enable staff monitoring. Brochures and posters aimed at preventing under-age play have been distributed to schools throughout the state, and a youth addiction prevention programme has been created and presented in schools.

Québec, Canada is one of the stricter jurisdictions in terms of prohibiting sales of lottery products to minors. Retailers found to be contravening the law are fined, with the amount significantly increasing for a second offence. In addition, retailers receive a 30-day suspension of their lottery sales permit for a second offence and permanent revocation of their permit for a third offence. However, it is not known in practice, how many retailers have offended or been caught and prosecuted for offending. In addition, the message of 'The sale of lottery tickets to minors is forbidden by Law' is displayed daily on retailers' terminal screens, posted on the internet, printed on lottery tickets and selection slips and warning stickers are distributed at all points of sale.

Oregon

For the past 15 years the Oregon Lottery has worked in partnership with problem gambling treatment providers and organisations (in particular the Oregon Department of Human Services) that work to promote problem gambling awareness. Over the years, this programme has included the development of problem gambling television advertisements as well as television, radio and newspaper awareness campaigns, brochures, posters and the internet to inform the general public and lottery retailers about how to access free treatment. Brochures and posters are placed in lottery retail locations and are also made available, at no cost, to other organisations (such as Indian gaming centres, treatment facilities, churches, human resources departments of businesses, and government agencies) that wish to share the information. Examples of slogans on brochures/posters include:

- A gambling problem leaves its mark on everyone it touches
- It's not whether you win or lose but how you play the game. If playing isn't fun anymore, call.....
- Learn to manage your gambling. Take your gambling in a new direction (produced as part of the Gambling Education and Reduction Program)
- Get your life back to normal. Gambling to escape? You are not alone

A recent television advertisement focusing on women and problem gambling resulted in a doubling of the call volume at problem gambling treatment centres with several women entering treatment as a direct result of seeing the advertisement (Meissner, 2006; personal communication).

Their commitment to retailer training is ongoing and includes information on problem gambling and warning signs, and the free treatment that is available.

The statement that “Lottery games are based on chance, should be played for entertainment only and should not be played for investment purposes” is printed on each lottery ticket and must be included on all television, radio and newspaper advertising of lottery games.

New Zealand

New Zealand Lotteries promote responsible play practices by detailing helpline and counselling service telephone numbers in written material available at all retail outlets together with responsible play information. The “Have fun and play responsibly” logo is printed on all tickets and there is an R18 (18 year age restriction) mark at all points of sale for Instant Kiwi.

A brochure entitled “Have fun and play responsibly” includes details of the odds of winning on the various lottery games, problem gambling signs to watch out for and counselling service telephone numbers.

3.6.2 Awareness of responsible gambling initiatives

There is very limited robust research available addressing people’s awareness of responsible gambling initiatives. In fact, for this report, only one article could be located.

In Ontario, a telephone survey of 2,500 adults found that almost 66% of participants were not aware of any initiatives to reduce problem gambling, although those respondents who participated in gambling activities where some awareness information was available (such as various lottery products and slot machines) were more likely to report having seen posters or other awareness information (Turner et al., 2005). Turner and colleagues also found that the same gambling activities correlated with awareness of problem gambling services and suggested that people actually read notices about the helplines that have been placed on tickets and slot machines. In terms of awareness of problem gambling, Turner and colleagues report that the main sources of information were television, conversations, newspapers and radio, with respondents most likely to report hearing about gambling problems from the television. However, the authors report that television was seen as the least credible source of information.

Key findings in this Section

Current responsible gambling initiatives

- Publication of helpline numbers on websites and lottery tickets is common
- Messages such as 'Please play responsibly' on websites, ticket machines and advertisements are also common

Current responsible gambling initiatives - continued

- Some lottery corporations take a more active approach and introduce responsible gambling retailer training and/or anti-youth gambling programmes
- The Oregon Lottery is leading the way with responsible gambling initiatives

Awareness of responsible gambling initiatives

- There is almost no research on peoples' awareness of responsible gambling initiatives

4 CONCLUSION

The purpose of this report was to conduct a review/audit of existing research in relation to five specific questions posed by the New Zealand Lotteries Commission. The outcome of the review in relation to each of these research questions is outlined below.

To what extent do lotteries products in general and New Zealand lotteries products in particular appeal to problem and under-age gamblers? Do some products appeal more than others and, if so, can this be described?

Lottery products appear to have high appeal to most sectors of the population due to a variety of factors that include easy availability and accessibility, low cost to play with a potential to win large amounts of money, structural characteristics of the games and a general public acceptance of lottery games as being a 'lesser' or more 'socially acceptable' form of gambling. A majority of adults in countries where lotteries are available seem to partake in lottery gambling, at least to some extent (i.e. at least once a year or more frequently). Weekly/twice-weekly lottery draws appear to be the most popular form of lottery product gambling followed by scratchcards. Keno appears to be a much less popular form with surveys and studies generally revealing only a small percentage of participants partaking in that form.

A distinction needs to be made between weekly/twice-weekly lottery draws which are a non-continuous form of gambling and scratchcards which can be described as a continuous form of gambling. Non-continuous forms of gambling have a number of days gap between placing the stake and knowing the outcome of each gamble, in contrast to continuous forms of gambling whereby the time between stake and outcome is rapid and can be repeated at high frequency. People who regularly participate in continuous forms of gambling have been shown to be significantly more likely to develop problem gambling behaviours.

There is no research evidence that weekly or twice-weekly lotteries are associated with problem gambling amongst the adult population, although lottery gambling is often reported as a secondary form of gambling by problem gamblers in Europe and New Zealand. In 2005 in New Zealand, 21.4% of new clients accessing counselling services for their problem gambling stated that lotteries products were a secondary mode of problem gambling. However, only 2.1% stated that lottery products were their primary mode of problem gambling.

Although some Lotto gambling appeared to be a preferred form for all types of gambler in New Zealand surveys, it was slightly less so for problem or probable pathological gamblers, predominantly because other forms of gambling such as horse/dog betting and electronic gaming machines were a preferred form for a greater percentage of those respondents.

Lottery products (in particular, scratchcards) have a definite appeal to a substantial proportion of children and adolescents, from as early an age as nine years. Studies indicate that lottery play may be a predictor for increased gambling behaviour and amongst adolescents may be problematic for a small minority. Several studies (mainly

in the United Kingdom and Canada) have shown that under-age adolescents easily and regularly have access to lotteries products, through self-purchase and also through purchase by parents or other family members.

Although only a very small minority of adults and a slightly larger minority of adolescents appear to have a problem with lottery products, the fact that a problem exists provides an area worthy of further research, particularly in New Zealand and especially in relation to under-age players where the long-term effects of developing a problem at an early age are unknown.

What is the role of lotteries marketing in shaping people's views on participating in lotteries and about gambling in general?

Marketing covers a range of activities. It can include advertising in various media (for example television, radio, billboards), televised programmes such as lottery draws and other situational characteristics such as the location and number of gambling outlets, and where the products are placed within an outlet (e.g. on check-out counters).

Televised draws may influence lottery play, especially amongst adolescents, who in a study in the UK were shown to routinely watch the weekly programme, possibly due to its early time slot and also due to the presence of celebrities and pop stars on the programme. However, there is no conclusive evidence that viewing the show increased the likelihood of participation or vice versa.

Advertising of lottery products was recalled by 84% of participants in a national survey of adults in New Zealand; that percentage was almost identical to that of people who participated in lottery gambling. However, this does not indicate any causal link. Studies with adolescents indicate that familiarity with lottery products (through advertisements) could be a factor in subsequent purchase of these products. Lottery advertisements may also be familiar and appealing to young people, who tend to consider gambling as a normal behaviour and lotteries as the dominant form of legal gambling.

The availability of lottery games seems to be socially acceptable. The reasons are multi-faceted and may include the 'feel good' factor of gambling proceeds being directed to worthy/charitable causes and also due to a perception that playing the lottery may not really be gambling.

A study in the United States, pre- and post- the introduction of a lottery in three states, indicated that adolescent gambling prevalence increased significantly after introduction of the lottery, that the lottery became a favourite activity in comparison with other forms of gambling and that expenditures on other forms of gambling also increased. However, there is no robust evidence that lotteries causally lead to gambling per se being an activity to be pursued.

What other lotteries have made existing or new products available on the internet or via electronic media and what impact, if any, have these had on problem and under-age gambling?

Internet gambling is an expanding feature of contemporary life. Currently, it is mainly European countries and Canada that allow internet lottery gambling (weekly/twice weekly draws, scratchcards and keno), directing their internet products to residents of their own countries. Other forms of electronic gambling include via interactive television and mobile telephones (text messaging as well as internet). Examples of 'new' lottery products available on the internet or electronically could not be found.

A number of other governments have attempted to control internet gambling, including New Zealand which prohibits remote interactive gambling through the Gambling Act 2003; however, there are two exceptions to this legislation in that lottery sales promotions conducted in New Zealand are permitted and the Lotteries Commission and the Racing Board can conduct approved forms of remote interactive gambling.

Currently only a small percentage of people gamble via the internet but this is likely to change over the impending years, particularly as access to the technology that is required for remote interactive gambling becomes more readily available and affordable.

No literature was found in regard to lotteries internet gambling and the impacts on problem gambling or under-age gambling. However, there are several areas of concern differentiating internet from traditional gambling. The potential unlimited access to gambling via the internet has a potential to lead to excessive gambling behaviour and could lead to greater exposure to under-age participants. Other areas of concern include: the potential for adolescent players to hide their age, the diminished perception of money when playing with electronic cash, the lack of external influencing factors when playing alone, and the risk of playing on disreputable and unregulated sites.

However, it should also be noted that the use of the internet as a medium for gambling has the potential for technological safeguards to be established that minimise the potential for harmful or excessive gambling. This would rely on the internet gambling provider having the social responsibility to establish those safeguards.

What policies, programmes, codes of practice and corporate social responsibility guidelines have other lotteries adopted and is there any evidence about the impact these have had on problem and under-age gamblers?

Provision of responsible gambling is a hot topic world-wide and is adopted by most lottery providers. However, the level of adoption varies considerably.

The World Lottery Association, which represents 136 lotteries from 74 countries (including New Zealand), has recently adopted a set of responsible gambling principles committing their members to make responsible gambling an integral part of their daily operations. Whether this actually happens remains to be seen but this represents a start

in the multi-jurisdictional standardisation of responsible gambling practices for lottery providers.

Camelot (UK National Lottery), the Oregon Lottery in the USA, Manitoba Lotteries Corporation in Canada, Veikkaus (Finnish Lottery) and New Zealand Lotteries Commission are organisations which appear to have significant commitment to social responsibility and which have implemented a variety of policies in order to achieve this.

Since some lottery products (in particular, scratchcards) appear to be a popular form of gambling for adolescents and children as young as 10 years of age, particular care needs to be taken in terms of ensuring their safety. This can include not only corporate social responsibility practices by lottery providers but also regulation at a governmental level including statutes restricting access (by age), restricting advertising and enforcement of penalties for vendors/providers who violate such laws. Additionally, since many young people access lottery products through family and friends, there appears to be a need for general awareness-raising regarding the potential harms from lottery play, especially for adolescents.

A further separate consideration is internet gambling. Corporate social responsibility policies relating specifically to this medium are required to protect players. These could revolve around the fact that internet playing is likely to be an asocial activity with no third party presence available to observe player age or behaviour; additionally there is a risk that players may not easily be able to distinguish between legitimate and regulated sites versus illegal disreputable ones.

There is no robust evidence available to indicate the effectiveness of corporate social responsibility programmes currently in place. However, the Oregon Lottery implemented a women's problem gambling campaign (television advertisement) to reach more of the female population - this resulted in a doubling of the call volume at problem gambling treatment centres with several women entering treatment as a direct result of seeing the advertisement.

What education programmes or materials have been developed to educate gamblers about responsible gambling and are there examples of 'good practice' in this area?

Many lottery providers publish, at a minimum, helpline numbers on websites and/or lottery tickets and have messages such as 'Please play responsibly' posted on websites, ticket machines and dispensers, and in advertisements. Some providers take a more active approach to responsible gambling and have introduced retailer training programmes that may include responsible gambling and problem gambling issues and/or issues relating to odds of winning and legal age limits. Brochures and posters are often produced as part of these programmes. The Oregon Lottery appears to be leading the way with responsible gambling initiatives by working in partnership with problem gambling treatment providers and organisations to promote problem gambling awareness information.

Unfortunately, there is practically no research on the effectiveness of, or people's awareness of, responsible gambling initiatives.

Summary

While not as strongly implicated with problem gambling as some other gambling forms, a small minority of regular lottery players develop problems. Adolescents appear to be more susceptible to the negative effects of playing lotteries than other population groups. In addition, different forms of lottery products have different potentials for causing harm. Continuous forms such as scratchcards are more problematic than non-continuous forms such as weekly lottery draws.

The playing of lottery games, especially by adolescents and children should be a concern given the high usage by adolescents and their potential to develop gambling problems (as indicated by international research). The apparent easy access by under-age players to lottery products is a particular concern. This could be addressed through tightened restrictions on under-age access at points of sale, through a change in parental and general population attitudes and perceptions to lottery gambling and young people's participation in such, through more responsible advertising and marketing practices, and through strict and enforced legislation.

Remote interactive lottery play via the internet, interactive television and through mobile telephone technologies is likely to become an increasing concern due to the potential for unregulated and unmonitored gambling including by adolescents. Certain forms of internet gambling may also be classed as continuous forms of gambling and this too would then be an additional area of concern.

Most lottery providers adopt some form of responsible gambling initiatives. However, many are minimal and are likely to have limited impact. However, globally there are examples of initiatives where substantial responsible gambling policies and programmes have been implemented and which may well have a positive impact in reducing the harms from gambling. Research is required to identify whether or not this is, in fact, the case.

4.1 Limitations to this review

This report has been compiled from a variety of sources of information. Some have been academic research papers that have undergone a peer-review process and, therefore, are likely to be of rigorous scientific quality. However, the number of researchers in the area of lotteries gambling is low and for this report the authors have had to rely heavily on research from only a few sources. For other areas of this review, information has been obtained via the internet with various lottery and governmental websites being scrutinised; the sections on corporate social responsibility and educational programmes are an example of where this type of information was likely to be obtained. A weakness of information obtained by this means is that it has not been subjected to peer-review and the authors of this report cannot, therefore, vouch for the integrity of the information presented.

Information regarding lottery products is much more limited than information regarding other forms of gambling; thus, there are large gaps in the information presented with much of the information being gleaned from the USA, UK and the New Zealand context only. The information presented could, therefore, be culturally biased.

New research is continually being conducted and so the information presented in this report is that which was available at the time of issue of the draft report. Inevitably, there has been a time gap between the draft and final reports. Information that may have been published in that time gap has not been cited.

Corporate social responsibility and the development and evaluation of educational programmes can be commercially sensitive information which is hard to obtain. There is likely to be much more information available than was obtainable for this review.

Notwithstanding the above, this report is believed to be an accurate portrayal of the available information in the five topic areas of the project brief. It is very evident from the lack of research available to complete this review that there are many areas where investigation into the impacts and effects of lottery playing can be further examined. The major research gaps are discussed in the following section with recommendations for potential research that the New Zealand Lotteries Commission could contract detailed in Chapter 5.

5 RESEARCH GAPS

In reviewing the available and accessible literature for this review, it is apparent that there are several areas where more research is required in relation to lottery products and their association with potential gambling harms. These especially relate to adolescents, a population group that is potentially more at risk from lottery gambling harms, than adults.

Longitudinal studies

Longitudinal studies are required to investigate the long-term effects of adolescent lottery products gambling. Currently, it is unknown whether regular lottery playing at an early age may lead to problems with lotteries gambling or more generalised problem gambling in later life. Neither is it known whether there is a difference between under-age regular weekly lottery or scratchcard participation and the effects in adult life. Given that adolescents seem to be susceptible to gambling harms from lottery participation, there is an urgent need to understand the effects of accessibility and availability of lottery products on future gambling behaviours, especially amongst youth.

Impacts

According to Griffiths and Wood, research is needed on the social and psychological impact of all forms of lotteries with a focus on the minority of heavier spending players (Griffiths & Wood, 1999; Wood & Griffiths, 2004).

In relation to adolescents in particular, but also to the adult population as a whole, there is a lack of information regarding the positive and negative impacts of commercial gambling advertising. Related to this is the necessity to also understand the extent of exposure to gambling advertising, particularly on youth, and the positive and negative influence of that exposure.

Awareness programmes

Derevensky and Gupta recommend funding for the development and implementation of a widespread prevention programme beginning at elementary school level to ensure that school administrators, members of psychological services and teachers are aware of risk and potential for adolescents to develop gambling problems. They also suggest that any prevention programme must be accompanied by a public education-awareness programme encouraging parents and adults to be attentive to the types of gambling-related problems experienced by adolescents. Additionally, they state that specific programmes targeted to lottery vendors, law enforcement and criminal justice need to be developed and implemented. Finally, Derevensky and Gupta recommend that concerted collaborative efforts between researchers, mental health providers and lottery corporations should be strongly encouraged (Derevensky & Gupta, 2001).

Responsible gambling initiatives

Responsible gambling initiatives, policies and programmes appear to have been implemented by a variety of lottery providers with no formal evaluation of their effectiveness in reducing potential harms from lottery gambling. Thus, any responsible gambling initiatives, policies or programmes that are adopted should be evaluated for their effectiveness and to ensure that they are not unwittingly causing negative effects

such as encouraging irresponsible gambling. Ideally, this would involve pre- and post-implementation surveys to establish impacts and behaviour changes relating to the initiative/policy/programme.

Behaviour

Research is required into the impacts of current and future efforts to modify lottery purchasing and playing behaviour of youth. Similarly, research is also required into the impacts of prevention programmes and public education awareness programmes that encourage adults and parents to be attentive to the types of gambling problems experienced by adolescents.

Further robust research is required to explore gambling knowledge and its influence on gambling behaviour amongst youth. In particular, research is needed on adolescent perceptions and attitudes towards lottery games, participation and subsequent impacts.

Other

Finally, within the New Zealand context, annual data collected from problem gamblers attending treatment services details lotteries products under one category. Thus Lotto, Keno and scratchies are categorised under the same heading. It would be useful to split out these forms of gambling so that an assessment can be made as to which of these forms are more problematic.

6 RECOMMENDATIONS

The New Zealand Lotteries Commission had three overall project objectives in commissioning this report.

- 1) Conduct a review/audit of existing research in relation to five specific questions:
 - To what extent do lotteries products in general and New Zealand lotteries products in particular appeal to problem and under-age gamblers? Do some products appeal more than others and, if so, can this be described?
 - What policies, programmes, codes of practice and corporate social responsibility guidelines have other lotteries adopted and is there any evidence about the impact these have had on problem and under-age gamblers?
 - What other lotteries have made existing or new products available on the internet or via electronic media and what impact, if any, have these had on problem and under-age gambling?
 - What is the role of lotteries marketing in shaping people's views on participating in lotteries and about gambling in general?
 - What education programmes or materials have been developed to educate gamblers about responsible gambling and are there examples of 'good practice' in this area?
- 2) Identify gaps in the research.
- 3) Recommend research that New Zealand Lotteries Commission may commission to fulfil New Zealand Lotteries Commission objectives.

The review of literature identified several areas where more research is required in relation to lottery products and their association with potential gambling harms. These especially relate to adolescents, a population group that is potentially more at risk from lottery gambling harms, than adults. The identified research gaps fall into six main categories, which are described in more detail in the preceding section.

- Longitudinal studies
- Impacts
- Awareness programmes
- Responsible gambling initiatives
- Behaviour
- Other

These research gap categories have been used as the basis for the following recommendations as to research that the New Zealand Lotteries Commission may wish to contract. The recommendations are not detailed in any particular order or priority.

Longitudinal studies

Recommendation #1

Longitudinal studies are required to investigate the long-term effects of adolescent lottery play

Discussion

Currently, it is unknown whether regular lottery playing at an early age may lead to problems with lotteries gambling or more generalised problem gambling in later life. Neither is it known whether there is a difference between under-age regular weekly lottery or scratchcard participation and the effects in adult life. Given that adolescents appear to prefer to gamble on lottery products and seem to be susceptible to harms from lottery participation, there is a need to understand the effects of accessibility and availability of lottery products on future gambling behaviours, especially amongst youth.

Impacts

Recommendation #2

Research is required to assess the social and psychological impact of all forms of lottery play

Discussion

There is a complete lack of research in this area. The focus within a New Zealand context should be on the drawn lottery (Lotto and Big Wednesday and their variants) and also on the Instant Kiwi scratchcard as well as new, future forms of lottery products. It should also focus on the minority of heavier spending players including regular players of scratchcards and on adolescents, since these populations groups are more at-risk for developing lottery gambling-related problems.

Recommendation #3

Research is required to assess exposure to lotteries advertising and the influence of that exposure

Discussion

There is a lack of understanding as to the full extent of the exposure of people to lotteries advertising and the impact of that advertising; for example does it encourage people to gamble on lotteries or other products beyond their means? In particular, there is a need to examine the impact of advertising on adolescents given their predilection for gambling on lottery products despite being under the legal age to do so. In addition, cultural and ethnic differences in relation to exposure and influence of advertising are an area requiring research. In the New Zealand context, this would include Maori, Pacific peoples, Asians and recent migrants.

Awareness programmes

Recommendation #4

Awareness programme/s aimed at informing adults about the potential risks of adolescent lottery gambling behaviour could be developed and evaluated

Research has shown that a substantial proportion of adolescents are encouraged to gamble on lottery products by family members and peers, often with family members purchasing the lottery ticket or scratchcard for the under-age youth. Additionally, many lottery playing youth have reported that lottery play or other forms of gambling are commonplace within their household. Awareness programmes are required that are aimed at adults who come into close contact with adolescents such as parents, school teachers and administrators and lottery vendors to raise awareness regarding the prevalence of lottery play by under-age youth and the potential harms that can ensue especially in terms of continuous forms of gambling such as with scratchcards.

Responsible gambling initiatives

Recommendation #5

Robust evaluation of the effectiveness of current and future responsible gambling initiatives is required

Discussion

It is important that any implemented responsible gambling initiatives are effective and have the desired outcomes as opposed to being ineffective or producing unwanted negative outcomes (e.g. leading to an increase in gambling by at-risk populations causing a potential increase in gambling-related harms).

Behaviour

Recommendation #6

Research is required to investigate behavioural change in response to prevention and public awareness education programmes

Discussion

This is particularly important in relation to adolescents whereby a desired outcome would be a modification in lottery purchasing behaviour (by adults for youth and by youth themselves) and a subsequent reduction in lottery gambling by under-age youth.

Recommendation #7

Research is required to explore adolescent gambling knowledge, perceptions, attitudes and behaviour

Discussion

Preliminary research has been conducted in this area, though not in New Zealand. It is important to establish adolescent knowledge, perceptions, attitudes and behaviour towards lottery products given that there is currently no age restriction for the purchase of a weekly Lotto ticket but there is an 18 year age limit for the purchase of scratchcards.

Other

Recommendation #8

National statistics data should detail individual lottery products

Discussion

Currently, annual data collected from problem gamblers attending treatment providers in New Zealand detail the types of gambling that are considered to be primary and secondary problematic forms. However, all lottery products are categorised under one heading of 'Lotto/Keno/scratchies' which combines continuous forms (e.g. scratchies) with non-continuous forms (e.g. Lotto) of gambling. Since people who gamble on continuous forms are more at risk of developing problematic behaviours it is recommended that future data collection splits out the different forms of lottery product so that an assessment can be made as to which forms are the most problematic in the New Zealand context.

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