



MODULE 6:

BINGE DRINKING

Summary:

- Binge drinking is often associated with a range of negative health and social outcomes both for individuals who engage in it and for those around them.
- There is debate over a useful definition of “binge” drinking. The term “heavy episodic drinking” has been proposed as an alternative.
- Drinking to intoxication is a consistent feature of binge drinking.
- For prevention, it is helpful to focus on the outcome of hazardous drinking patterns and to establish effective approaches to reduce the potential for harm.
- Binge drinking has been identified as a particular problem among young people. As such, it is an issue of special concern to public health authorities, families, and communities.
- Measures that have been used to address binge drinking focus on changing cultural attitudes towards drunkenness and making the drinking environment safer. Such initiatives include education, particularly social norming, and responsible hospitality approaches.
- For [EXAMPLES OF TARGETED INTERVENTIONS](#), see the Blue Book index page of www.icap.org.

Patterns of drinking are reliable predictors of outcomes, whether positive or negative (e.g., Bobak et al., 2004; Grant & Litvak, 1998; Kauhanen et al., 1997; Rehm & Gmel, 1999; Tolstrup, Jensen, Tjønneland, Overvad, & Gronbaek, 2004). One drinking pattern that has been associated with negative outcomes is the “binge.” Also referred to as “heavy episodic drinking,” binge drinking receives much attention as a public health concern, in particular in relation to young people.

The binge is generally recognized as a harmful and potentially life threatening pattern of drinking. There is controversy, however, regarding a suitable definition of binge drinking and whether the term is a useful one at all. Whatever definition one chooses, it is clear that in most countries a significant problem exists around those who regularly consume beverage alcohol with the intention of becoming intoxicated. Binge drinking among young people is of particular concern. Targeted prevention strategies that aim to tackle the drinking culture and the drinking environment are essential features of a comprehensive response to binge drinking.

Defining binge drinking

There is general agreement that drinking patterns associated with rapid intoxication, such as binge drinking, carry with them the potential for considerable social, psychological, and physiological harm (e.g., Arria & Gossop, 1998; Gmel, Rehm, & Kuntsche, 2003; International Center for Alcohol Policies, 2004b; Laatikainen, Manninen, Poikolainen, & Vartiainen, 2003; Perkins, 2002; Rehm & Gmel, 1999; Rehm, Greenfield, & Rogers, 2001; Wechsler, Davenport, Dowdall, Moeykens, & Castillo, 1994). What exactly constitutes a binge and how best to define it in quantitative terms, however, is the source of considerable disagreement (Dimeff, Kilmer, Baer, & Marlatt, 1995; International Center for Alcohol Policies, 1997; Lange & Voas, 2001; Lederman, Stewart, Goodhart, & Laitman, 2003; Midanik, 2003; Wechsler & Austin, 1998; Wechsler & Nelson, 2001).

A broad range of definitions of “binge” exists, particularly in the English language. The clinical definition of a “binge” differs from that used in the social sciences, and differs yet again from that used in popular

expression. From a clinician's standpoint, a "binge" refers to a pattern of drinking to intoxication, usually a solitary activity lasting up to several days and involving loss of control over consumption (Gmel et al., 2003; World Health Organization, 1994).

Social scientists and epidemiologists, on the other hand, generally use quantitative definitions of binge drinking based on the number of drinks consumed on one occasion. The following are examples of various definitions in the research literature and from various authorities:

- 4+ drinks per occasion for women / 5+ drinks per occasion for men (USA) (Wechsler & Austin, 1998; Wechsler et al., 1994; Wechsler, Dowdall, Davenport, & Rimm, 1995; Wechsler & Nelson, 2001);
- 5+ drinks per occasion at least once in the past 30 days (USA) (Substance Abuse and Mental Health Services Administration, 2004, p. 25);
- ½ bottle of spirits or 2 bottles of wine on the same occasion (Sweden) (Hansagi, Romelsjö, Gerhardsson de Verdier, Andréasson, & Leifman, 1995);
- 6+ bottles of beer per session (Finland) (Kauhanen et al., 1997);
- regular consumption of 7+ alcohol units per session for women / 10+ units for men (United Kingdom) (Royal College of Physicians, 2001).

A problematic feature of these definitions is that the duration of an "occasion" is unknown, as are drinks sizes and strengths. Given the variation in what constitutes a "standard" drink or unit (International Center for Alcohol Policies, 2003b), the differences in amount of pure ethanol in each case are considerable ([MODULE 20: Standard Drinks](#)). Also, given the rate at which ethanol is metabolized, the length of an occasion strongly affects blood alcohol content ([ANNEX 2: The Basics About Alcohol](#)).

The National Institute on Alcohol Abuse and Alcoholism in the United States addressed some of these concerns when it redefined binge drinking as, "A pattern of drinking alcohol that brings BAC¹ to 0.08 gram percent or above. For the typical adult, this pattern corresponds to consuming 5 or more drinks (male), or 4 or more drinks (female), in about 2 hours" (National Institute on Alcohol Abuse and Alcoholism, 2004).

For prevention purposes, the definition may also benefit from including whether and how quickly individuals reach intoxication, thus addressing the implications for risk of health and social harm resulting from certain drinking patterns. Such focus on harmful outcomes may help identify possible prevention approaches.

Cultural considerations

Culture plays an important role in defining drinking patterns and attitudes, including those related to the acceptability of binge drinking (Heath, 1995, 1998, 2000; MacAndrew & Edgerton, 1969; Room, 2001; Room & Makela, 2000). In most cultures where drinking is permitted, binge drinking is generally more easily tolerated among men than among women (e.g., Fillmore et al., 1997; Heath, 2000). There are also cultures in which binge drinking is a normative drinking pattern and drunkenness a usual outcome. This view of binge drinking can be observed in some eastern and northern European drinking cultures (e.g., Grant, 1998; Heath, 1995, 2000; Kuntsche, Rehm, & Gmel, 2004; Perlman, Bobak, Steptoe, Rose, & Marmot, 2003; Schmid et al., 2003). Meanwhile, the traditional Mediterranean drinking culture does not generally condone either binge drinking or drunkenness (Heath, 1995, 2000).

Some cultures include episodes of binge drinking among traditional rites of passage, especially those that mark transition into adulthood (e.g., Araoz, 2004; Sande, 2002), but without considering the potentially

¹ Blood Alcohol Concentration (BAC), see [MODULE 16: Blood Alcohol Concentration Limits](#).

harmful outcomes of these drinking behaviors. The focus is on the significance of binge drinking in social bonding, especially among males (Heath, 1995, 2000). This pattern of consumption has been reported among Pacific Islanders, for example, and is seen in the United States (particularly within university cultures), Japan, and elsewhere (e.g., Heath, 1995; Higuchi & Kono, 1994; Higuchi, Suzuki, Matsushita, & Osaki, 2004; Nelson, Naimi, Brewer, & Wechsler, 2005).

Even in cultures where binge drinking is otherwise absent from general drinking occasions, binges may be included in certain celebrations—for example, religious ceremonies (e.g., Adams, 1995; Leacock, 1979; Room & Makela, 2000; Trenk, 2001; Schnell, 1997). Within these contexts, binge drinking may represent a “time out” from conventional behavior (e.g., during celebrations of *Mardi Gras* and *Fastnacht*, as well as various Shintō religious ceremonies).

Entrenched cultural views of binge drinking are an important consideration in developing policy and prevention approaches. Where the view is widely held that binge drinking is acceptable and even normative, changing such drinking patterns is difficult. Policies and approaches need to be sensitive to these considerations, and prevention strategies should be framed within the context of the prevailing cultural norms if they are to be effective.

Health and social considerations

Young people

Excessive and extreme drinking patterns, including binge drinking, among young people are a major concern internationally ([MODULE 11: Young People and Alcohol](#); e.g., Gill, 2002; Gmel et al., 2003; International Center for Alcohol Policies, 2004c; Wechsler et al., 1994; Wechsler, Lee, Kuo, & Lee, 2000; Wechsler et al., 2002; Windle, 2003). Research has shown that binge drinking behaviors among the young are becoming more prevalent in many countries, presenting a serious public health problem and social issue requiring attention (e.g., Hibell et al., 2000, 2004; Higuchi et al., 2004; Schmid et al., 2003).

There is evidence that some young people see binge drinking and drunkenness as “desirable” goals and outcomes of drinking occasions (e.g., Wechsler et al., 2002). These expectancies may drive risk-taking and hazardous drinking patterns. Peer influences play an important role. However, for many young people—and, likely, adults—binge drinking may also be a reflection of other stressors and risk factors, such as mental illness or sexual abuse (Champion et al., 2004; Miller et al., 2003; Simons, Christopher, & McLaury, 2004).

Heavy drinking patterns are associated with particularly harmful outcomes for young people (Brown & Tapert, 2004; Grunbaum et al., 2002; Hingson & Kenkel, 2004; Jennison, 2004; Levy, Stewart, & Wilbur, 1999; Perkins, 2002; Smith, Branas, & Miller, 1999; Turner & Shu, 2004). Due to the physiological and emotional changes occurring in adolescence and youth, binge drinking and other negative patterns may have lasting harmful consequences, including greater risk for the development of alcohol dependence (e.g., Hingson & Kenkel, 2004; Jennison, 2004; Vickers et al., 2004). Young people generally are more likely than adults to engage in a variety of risk-taking behaviors (Fromme, Katz, & D'Amico, 1997; Plant & Plant, 1992; Von Ah, Ebert, Ngamvitroj, Park, & Kang, 2004). Measures to reduce harm during this time of experimentation and risk-taking are therefore particularly important.

Such measures can be employed at many levels: for example, through proper implementation and enforcement of minimum drinking and purchase age laws, education strategies, measures surrounding responsible advertising and marketing, but also through an increased focus on the role and involvement of parents in addressing binge drinking and drinking in general among youths.

Other considerations

Binge drinking has been linked to a range of adverse acute health and social outcomes for adults and young people and is a contributor to mortality figures (Centers for Disease Control and Prevention, 2004; Hingson, Heeren, Winter, & Wechsler, 2005; Laatikainen et al., 2003; Miller et al., 2004; Rehm et al., 2001; Standridge, Zylstra, & Adams, 2004; Tolstrup et al., 2004). Health implications of binge drinking include cardiovascular problems, such as atrial fibrillation—also known as “holiday heart”—and other conditions (Arria & Gossop, 1998; Freestone & Lip, 2003; Frost & Vestergaard, 2004; Koul, Sussman, Cunill-De Sautu, & Minarik, 2005; Pletcher et al., 2005). For pregnant women, binge drinking has been correlated with harm to the developing fetus, especially during the early stages of pregnancy (see [MODULE 10: Drinking and Pregnancy](#)).

Social outcomes of binge drinking include an increased risk for road traffic crashes, injuries, and violence. Loss of productivity or absenteeism due to binge drinking and subsequent hangovers contribute to the social cost of this and other harmful drinking patterns.

Policy considerations

From a public health perspective, binge drinking is an undesirable consumption pattern. It is associated with considerable risk for harm and should be discouraged. However, there is a need to recognize that binge drinking is acceptable (and expected) in some cultures and may be a difficult behavior to change.

Various prevention and policy measures exist that are aimed at reducing binge drinking and at creating an environment in which the risk of harm is minimized.

Education

Education is an essential component of any balanced and comprehensive policy around alcohol. It can be used to raise awareness about particular issues, such as binge drinking and its outcomes, and to encourage low-risk choices. In the case of binge drinking, education has been applied in a number of different ways.

General education targeting the public at large—for instance, through the provision of drinking guidelines and recommendations—often specifically refers to heavy drinking occasions and binge drinking (see [MODULE 19: Drinking Guidelines](#); International Center for Alcohol Policies, 2003b). Health and social workers, including physicians, nurses, and others, have an important role to play in personalizing this information and sharing it directly with patients and clients. Information about harmful drinking patterns can also be imparted through channels such as the workplace (International Center for Alcohol Policies, 2003a).

Targeted approaches have been used to tackle binge drinking, especially as it relates to young people (see [TARGETED INTERVENTIONS](#)). For example, a wide range of school programs addresses harmful drinking behaviors through alcohol education, but reviews of these efforts are mixed (e.g., Centre for Addiction and Mental Health, 1999; Foxcroft, Ireland, Lister-Sharp, Lowe, & Breen, 2003; International Center for Alcohol Policies, 2004a; Kanof, 2003; Marlatt, 1998).

Among the more popular approaches are school- and community-based programs that teach young people skills to handle high-risk situations, often relying on the involvement of parents and other adults. There is evidence that family is the most influential factor in shaping young people’s attitudes toward alcohol and their actual drinking behaviors (see [MODULE 1: Alcohol Education](#); [MODULE 2: Life Skills](#)).

Other interventions include peer-to-peer counseling and interactive measures that appear to resonate well with youth (e.g., Reis & Riley, 2002). Research indicates that some of these measures are able to avert future social cost (Caulkins, Pacula, Paddock, & Chiesa, 2004; Flisher, Brown, & Mukoma, 2002).

Although it has its critics (Clapp, Lange, Russell, Shillington, & Voas, 2003; Granfield, 2002; Wechsler et al., 2003), the social norms approach has also shown promise in educating young people about various drinking patterns ([MODULE 3: Social Norms Marketing](#); e.g., Task Force of the National Advisory Council on Alcohol Abuse and Alcoholism, 2002). The basic premise behind the approach is that young people are encouraged to engage in certain activities because they perceive these behaviors as being the norm for a large number of their peers. For example, there is a perception among many young people that drinking in general and binge drinking in particular may be more widespread than they really are. The approach, therefore, attempts to correct these misperceptions, teaching young people about how much their peers actually do (or do not) drink. Positive outcomes of social norms programs have been reported particularly in relation to reducing the prevalence of binge drinking (Donohue, Allen, Maurer, Ozols, & DeStefano, 2004; Haines & Spear, 1996; Johannessen & Glider, 2003).

Media campaigns have also been used to create awareness and change behaviors, albeit with mixed results (Austin, Pinkleton, & Fujioka, 1999; Babor et al., 2003; Clapp et al., 2003; Houghton & Roche, 2001; Perkins, 2003; Saffer, 2002). While such campaigns are expensive and their impact often difficult to quantify, they can be tightly focused at particular target audiences. Media campaigns, however, certainly cannot be effective on their own, but only as part of broader and comprehensive initiatives. A broader role for the media in general as a contributor to cultural development and the shaping (or reshaping) of attitudes might be worth exploring.

Responsible server training

Interventions that focus on settings in which drinking takes place can be useful in changing inappropriate or harmful drinking patterns. Thus, measures have been applied within drinking establishments and licensed premises that can be helpful in reducing the risk for harm (e.g., Bruce, 1980; Duffy, 1992; The Portman Group, 2000). They include, for example, changing the lighting, music, and entertainment in a bar or nightclub to encourage people to linger, drink more slowly, engage in conversation, and focus on other aspects of the experience aside from the drinking itself.

A key component of this approach is educating management and staff in alcohol outlets to discourage binge drinking and its outcomes among patrons by, for example, providing food and nonalcoholic drink options and not serving intoxicated clients. Such training also includes teaching strategies for handling aggressive clients or ensuring that patrons do not drive drunk (see [MODULE 4: Responsible Hospitality](#)).

Conclusions

Binging is a behavior with undesirable outcomes for drinkers and those around them. A debate over recent years has focused on how this pattern should be defined and how many drinks make up a binge. From the perspective of policy and prevention, however, the more important issues surrounding binge drinking are its outcomes and the potential for harm that results from such consumption.

Various approaches have been implemented in an attempt to reduce the incidence of binge drinking. Particular attention has been paid to young people, who are generally more likely to engage in risky drinking and more susceptible to harm than adults. Integrative approaches that take into account the cultural dimensions surrounding binge drinking are likely to be among the more successful ones.

POLICY OPTIONS: Binge Drinking

In developing policies and approaches, consideration of a number of key elements is required. While some may be necessary at a minimum and under most conditions, others may not be appropriate in all cases, or may be difficult to implement. The list below offers a menu of areas that need to be addressed, based on effective approaches that have been implemented elsewhere. Specific examples are provided in the [TARGETED INTERVENTIONS](#) section of the *ICAP Blue Book*.

Information and Education

Official **guidelines** on alcohol consumption.

- Specific reference to drinking patterns and heavy episodic/binge drinking.
- Balanced and complete information about health and social outcomes.

Raise **awareness** of binge drinking and harm among general population in a realistic and culturally sensitive way.

- Mass media campaigns
- Health care professionals (general practitioners, nurses, pharmacists), educators, and others as providers of information.

Education measures **targeted at specific populations and settings**.

- Pregnant women.
- Patients in emergency rooms.
- School-based programs on alcohol or within health education.
- Approaches to changing expectancies and culture (e.g., social norming).
- Coping and life skills.

Training of **health and other professionals**.

- Ensure knowledge of binge drinking and outcomes.
- Screening and identification of problem drinkers.
- Provision of interventions and counseling.

Prevention

Measures involving **serving establishments** and other venues.

- Serving practices and environmental changes to reduce likelihood of binge drinking.
- Dealing with intoxicated patrons.

Early **identification** of problem drinking.

- Brief interventions to change drinking patterns and reduce harmful outcomes.

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