

## **Internet-based Interventions for Alcohol, Tobacco and Other Substances of Abuse**

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### **Abstract**

This chapter provides a summary of the state of Internet-based Interventions (IBIs) for substance abuse to-date. First, common elements in IBIs are discussed. Next, a rationale for IBIs is provided. Third, the research conducted to evaluate IBIs for alcohol, tobacco and other substances of abuse is summarized. The chapter concludes with a discussion of what questions still need answering as IBIs are further developed in the next few years.

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## **Introduction**

Interventions for substance abuse have been available for several years on the Internet (IBI – Internet-based Intervention). Are these IBIs just interesting toys, of little or no use in the business of treating substance abuse concerns? Or, are IBIs the wave of the future, destined to become the predominant means of providing help to those with substance abuse and other health concerns? The reality will probably end up somewhere between these two extremes, with IBIs becoming one further means, along with existing treatment options, of providing services to those in need. This chapter will address several questions that are key to understanding how and why the science of addictions treatment is being translated into the practice of IBIs. Topics to be covered include: 1) What do IBIs for alcohol, tobacco and other drug concerns look like?; 2) Why bother? Who uses the Internet and why won't they show up in treatment?; 3) What is the evidence that IBIs work?; and 4) Future Directions – What questions need answering and what might IBIs for substance abuse look like in the future? The intent of this chapter is to provide a critical review of current IBIs, discuss their immediate implication for assessment and treatment, and identify gaps in both research and practice that need to be addressed as the science of addictions treatment progresses to the practice of Internet-based Interventions.

### **What do Internet-based Interventions for alcohol, tobacco and other drug concerns look like?**

There are a variety of different websites available that provide help for substance abusers – from those that are purely informational through to fully developed IBIs. In this

section an example IBI, the Alcohol Help Center (AHC; located at [www.alcoholhelpcenter.net](http://www.alcoholhelpcenter.net)), will be used to illustrate many of the common elements that appear in IBIs and will also be used to highlight some of the different ways in which IBIs can be structured.

#### *Accessing the website*

One of the first elements to be aware of is that some websites are available free-of-charge (such as the AHC) and others charge a fee for service (e.g., Drinker's Check-up, Hester *et al*, 2005). Beyond the reality that some IBIs have to charge a fee in order to stay in operation, there are some clear advantages to making some IBIs available at no cost because this removes a potential barrier to access for some groups of potential users. However, it should also be considered that a minimal fee might have the advantage of increasing the perceived worth of the IBI to the user (i.e., "I paid a fee so I'm going to use the site as much as possible in order to get my money's worth").

Almost all IBIs have some sort of home page that describes the website and, depending on the quality of the site, provides information on the developers as well as freely available educational materials about the substance of concern (for more details on the quality control content of good IBIs see, Evers, Cummins, Prochaska, & Prochaska, 2005; Walther *et al*, 2005). Also common, regardless of fee structure or other registration procedures, is some sort of screener test that allows the potential user to evaluate whether their alcohol, tobacco or drug use may be a problem. In the AHC, this screener is called the 'Check Your Drinking' screener and is available for use without any form of registration on the site (Cunningham *et al*, 2006). In addition to providing a measurement

of the severity of participants' drinking concerns using a validated measure (the AUDIT in this case, Babor *et al*, 1989; Saunders *et al*, 1993), the Check Your Drinking screener provides a number of other useful feedback elements that have been designed to help participants evaluate their drinking and increase their motivation to change. Primary to this motivational material is normative feedback that compares participants' drinking to that of others of the same age, sex and country of origin (for Canada, USA, and the United Kingdom; other countries to be added at a later date; see Figure 1 for an example feedback chart). While personalization of feedback material to make it more relevant to participants might serve to strengthen its motivational content, it should also be noted that such personalization can serve to limit the usefulness of the website for participants from countries for which there is no personalized data available. This same limitation is true for the language in which the website is available (i.e., a website that is only available in English will not be of much use to people who do not speak English).

Insert Figure 1 about here

After taking the screener test and reviewing the information on the content of the website, the participant is usually asked to register. While registration is not always required (e.g., Moderation Management, Hall & Tidwell, 2003; Humphreys & Klaw, 2001), it does have some advantages. Primarily, registration can allow for some continuity in participants' experience. The website can keep a record of participants' earlier visits and facilitate transition through a programmatic intervention (e.g., by providing a drinking diary such as the one discussed below). Registration might also

serve to discourage unhelpful participation on group elements of an IBI's website (e.g., people posting 'spam' on an online support group). The disadvantage of registration is that it may raise concern in potential participants about issues of privacy and anonymity. These concerns are valid and information should be contained on the website about ways to promote privacy (e.g., registering using an e-mail address that does not contain personal identifiers) as well as the privacy policy of the website. Ideally, the website should strike a balance between the advantages of keeping a record of each participant's use of the website and the disadvantages of potentially excluding someone in need because they have concerns about privacy. These issues are discussed in some detail in privacy legislation for health information that is promoted by various national and international organizations ("Health Insurance Portability and Accountability Act of 1996 (United States of America)" Pub L No. 104-191", 1996; , "Personal Information Protection and Electronic Documents Act (Canada)", 2000 (amended 2004); van Mierlo *et al*, 2006, May).

### *Inside the Internet-based Intervention*

Perhaps one of the largest differences in various IBIs is how the website is structured and the choices participants have in how they access information. As an example, can participants pick and choose between the content and decide in what order they choose to use the various tools? Or, is the person restricted to following a particular programmatic route through the materials, more akin to a multi-session face-to-face addictions treatment program (for more details on the strengths and weaknesses of different IBI structures see, Danaher *et al*, 2005)? Beyond the structure of the IBI, there

are several common elements from traditional cognitive behavioral treatments for substance abuse that are often included in these online programs. These elements will be discussed briefly using the Alcohol Help Center as an example. The first of these common elements is a diary that participants can use to track their patterns of drinking over the period in which they use the website (see Figure 2 for an example summary output). IBIs for smoking also usually contain such diaries (see Stop Smoking Center, [www.stopsmokingcenter.net](http://www.stopsmokingcenter.net)) and all serve to allow participants to track the patterns of their substance use and identify times and situations where they have most difficulty in dealing with their substance abuse concerns.

Insert Figure 2 about here

Alongside the diary function, most IBIs also contain a section in which participants write down their goal. In the Alcohol Help Center, participants have the choice of choosing abstinence or moderate drinking goals and advice is provided as to when an abstinence goal may be more appropriate (see Figure 3). Also relevant in such goal setting sections is the ability to change a goal if the person's first choice was problematic (e.g., tried a moderate drinking goal, found that it did not work and then switched to abstinence). The ability to incorporate this type of choice for the participant coincides well with recommendations regarding ways to motivate change among those substance abusers who are ambivalent (e.g., Miller & Page, 1991). Some websites also incorporate the ability for participants to make a public pledge about their goal (for an example, see the Stop Smoking Center).

Insert Figure 3 about here

One of the somewhat surprising features of IBIs is their ability to create a supportive community. This may seem counter-intuitive as IBIs are, by their nature, something that most people will interact with in isolation (i.e., sitting by themselves in front of a computer). However, the anonymity of a computer interaction appears to allow respondents to open up about their concerns and to provide support to one another (Humphreys & Klaw, 2001; Walther *et al*, 2005). Such support is often clearly much appreciated by people who have felt isolated in their concerns and have turned to an IBI as a way to communicate with others without exposing themselves because of fears about stigma. There is also some indication that some people who are too embarrassed to seek out treatment might first access help online. Then, if they desire more help, the experience of communicating online helps the substance abuser to feel more comfortable seeking out similar support in a face-to-face setting (Cooper, 2004). One concern about support groups is that this anonymity could also promote the chance that users will become abusive to one-another. However, having a professional moderator available, as well as clear user agreements that specify the nature of allowable communications and the sanctions associated with abusive language, often greatly reduce the frequency of such counter-productive behavior (see Figure 4).

Insert Figure 4 about here

There is also an array of components that can be included in an IBI to promote continued participation and motivate change over time. As an example, the Alcohol Help Center incorporates a function where the person can ask to be sent e-mail messages that incorporate tips to promote change (see Figure 5). The intent of these messages is to keep the participant thinking about their drinking goal and to provide additional support. As another example, the Stop Smoking Center has a downloadable 'quit meter' that provides updates on how long participants have been smoke free, how much money they have saved, and their increase in life-expectancy resulting from quitting smoking. The advantage of an IBI for this type of on-the-go tool is that, once programmed, its upkeep can be inexpensive, providing the opportunity to promote ongoing motivation for change in a cost efficient manner.

Insert Figure 5 about here

Beyond these elements that are common to many IBIs, there are a range of other tools that are available. As examples, the Alcohol Help Center contains exercises that allow the participant to evaluate the costs and benefits of changing and also, to identify ways to deal with urges and cravings to drink. Ideally, the content of an IBI should be evolving over time as new tools that might be helpful to participants are identified and modified to make them usable in an online format.

**Why bother? Who uses the Internet and why won't they show up in treatment?**

One of the enduring facts about treatment for alcohol, tobacco and other substance abuse concerns is that most people will never show up for treatment. Using alcohol as an example, the estimated ratio of treated to untreated problem drinkers ranges from about 1:3 to 1:14 (Burton & Williamson, 1995; Cunningham & Breslin, 2004; Hasin, 1994; Roizen *et al*, 1978; Sobell *et al*, 1992). These estimates are usually generated from general population survey data and are derived by first assessing the number of problem drinkers in a population and then asking these problem drinkers if they have ever used any type of treatment for their alcohol concerns, including Alcoholics Anonymous and talking with a family doctor as well as other, more formal, types of treatment. The ratio of treated to untreated varies marginally depending on country of residence but the primary factor explaining different levels of accessing treatment appears to be severity of drinking problems. That is, the more severe the definition of alcohol problems, the more likely it is that people who meet this criterion are to have accessed some type of treatment (Cunningham, 1999). However, the fact remains that, even with people who have severe alcohol problems (such as alcohol dependence), the majority will never have accessed any type of treatment for alcohol concerns. This means that there are large numbers of problem drinkers who are underserved by traditional treatment services. The same pattern of results has also been found for smokers (Hughes, 1999) and other drug users (Cunningham, 2000; Robins, 1980).

Even if there are many people who will never seek treatment, is it worthwhile trying to find other ways to help? Many people with alcohol, tobacco or other drug problems deal with their respective concerns without treatment (Cunningham, 1999,

2000; Hughes, 1999; Robins, 1980). However, while most substance abusers recover without treatment, they can cause themselves (and others) considerable lasting harm before doing so. In addition, many alcohol, tobacco and other drug users say that they are interested in receiving help (Cunningham, 2005; Cunningham *et al*, 2003; Koski-Jännes & Cunningham, 2001) but are reluctant to seek formal treatment because of embarrassment, fear of stigma, and concerns about availability (Cunningham *et al*, 1993; Grant, 1997; Roizen, 1977; Sobell *et al*, 1992; Tuchfeld, 1976). These barriers to treatment are precisely the reasons that some people with addictions concerns give for using IBIs (Cooper, 2004; Humphreys & Klaw, 2001). Combined with the fact that substance abusers often voice a desire to deal with their concerns by themselves (Cunningham *et al*, 1993; Grant, 1997), it would appear that there is a substantial audience for self-help services such as those that are available on the Internet.

One final issue in considering the potential worth of the Internet as a means of providing services for those with substance abuse concerns is accessibility. While estimates of access to the Internet continue to grow, particularly in wealthy countries (current estimates of Internet access in Canada and the USA are 70-75% of the adult population, Internet World Stats, 2005; Ipsos-Reid, 2004), it is possible that these numbers will not hold true for those with addictive behaviors. This is because substance abuse is associated with factors that can marginalize the addicted individual from mainstream society (low socio-economic status, unemployment, and concurrent psychiatric disorders, Cunningham *et al*, 2006 a) and such marginalization is associated with less access to the Internet (United States Department of Commerce, 2002). An analysis employing general population data collected in 2002 and 2004 in Ontario,

Canada, did find some disparity of Internet access depending on substance abuse status (Cunningham *et al*, 2006 a). Of drinkers, smokers, cocaine, and cannabis users, the only substance that was clearly associated with limited Internet access was smoking – pack a day smokers were less likely to have access to the Internet even after controlling for socio-economic status.

There are two things to learn from these analyses (Cunningham *et al*, 2006 a). First, many substance abusers have regular access to the Internet and second, substance abuse exists on a continuum of which the vast majority of substance abusers have mild to moderate rather than severe addictions concerns (Institute of Medicine, 1990a, 1990b). Thus, when we think about substance abusers it is important to remember that the majority has less severe addiction concerns, precisely the type of problems that might benefit from self-help services such as those available on the Internet. Given that one of the primary uses of the Internet is seeking information about health concerns (Ipsos-Reid, 2002) and that substance abusers are willing to give information about their use online (Nicholson *et al*, 1999), it would seem that it is clearly worthwhile to explore the utility of IBIs for substance abusers.

### **What is the evidence that Internet-based Interventions work?**

Bessell and colleagues (2002) summarized research evaluating Internet-based interventions for health concerns. They concluded that “there is almost no evidence regarding the effect of consumer Internet use on health outcomes” and that “well-designed controlled studies, ... are urgently needed” (p. 34). Recent reviews of Internet sites for alcohol or substance abuse (Copeland & Martin, 2004; Toll *et al*, 2003; Walters,

Wright *et al*, 2006) also concluded that there is a need for controlled trials evaluating these online services. However, research evaluating IBIs for some substances of abuse is clearly more advanced than for others, with IBIs for smokers being the most advanced, those for drinkers in the middle, and those for other substances of abuse trailing far behind.

*What types of evidence exist?*

Publications reporting on IBIs for substance abuse come in three classes. The first consists of papers that simply describe the existence of a website along with a summary of the number of people who use the site (traffic), and often, some preliminary data of the users' reactions to the website (e.g., Cloud & Peacock, 2001). The second consists of studies that report some type of outcome data of users of the IBI, whether consisting of the changing substance abuse status of respondents who use the website over a period of time (Linke *et al*, 2004) or of respondents who used the IBI and then were re-contacted after several months to ask about their status at follow-up (Cunningham *et al*, 2006). The final and most stringent evaluation consists of randomized controlled trials (RCT) that compare the outcome of respondents who use the IBI to a comparison group of some type. In the latter, membership in the group who are exposed to the IBI or in the comparison group is decided by random assignment so that the researchers can then make causal statements that any differences observed between the groups is due to the IBI. The few RCTs conducted to-date will be reviewed after a brief discussion of these three classes of evaluation.

While all three classes of studies have value, they vary in the strength of causal statements that can be made based on their findings. The first, descriptions of websites and participant reactions, are useful because they inform the reader of the existence of the website and provide information on traffic to the IBI and whether users' reactions are generally positive or negative. This type of process information helps to identify potential problems with the website. However, it provides no evidence as to whether using the website leads to a reduction in substance use. The second class, studies that include outcome data, are useful because they can provide pilot data that indicates that some substance abusers who used the website reduced their consumption or quit. However, it is important to be aware that it is inappropriate to claim that the website actually caused the reduction in substance use in this type of study. This is because people who access an IBI are most likely those who are already considering quitting. As many people quit different substances of abuse without treatment (Cunningham, 1999, 2000; Hughes, 1999; Robins, 1980), it is quite possible that they would have stopped their substance abuse even without accessing the website. This fact is the reason why RCTs are important because only RCTs are designed to test whether the addition of the IBI (or some other intervention) causes the observed reduction in substance use. Finally, it is important to recognize that RCTs also have their weaknesses, with the primary one often being that the characteristics of people who choose to participate in the randomized trial may be unrepresentative of the people who use websites in real life. Thus there is often concern about whether the same type of result would be obtained by all users of the website (generalizability). RCTs are sometimes conducted in situations that are quite different from the conditions under which an IBI would normally be accessed. As an example,

having participants come into a health care setting and sitting them in front of a computer to receive an IBI is a qualitatively different experience from the participant accessing the intervention from home. For instance, long assessments that the participant might feel compelled to fill out when face-to-face could easily result in participants leaving an Internet site when accessed from home. However, research evaluation is a cumulative activity in which one study is rarely taken as a gold standard of proof. Thus, increased confidence can be given to the effectiveness of an IBI if there are RCTs in different populations, outcome studies without comparison groups but consisting of participants who are using the IBI in real life and even positive process evaluation studies demonstrating that many people use the IBI and report that they found it helpful.

### *Cigarettes*

There are already a number of recent, high quality reviews of IBIs for smokers available (Etter, 2006a, 2006b; Walters *et al*, 2006). This information will not be repeated here in interests of saving space. There have also been several RCTs that will be summarized here because they are the only trials that demonstrate that IBIs for smokers are effective.

Etter (2005) reported on a RCT of the efficacy of two Internet computer-tailored smoking cessation programs, one a modification of the other. Subjects, visitors to the Stop-tabac.ch website (a French language website), were randomly assigned to one of two programs. The original program, based on psychological and addiction theory, had a longer baseline questionnaire and provided more information on health risks and coping strategies. The shorter modified program provided more information on nicotine

replacement and nicotine dependence. Both programs provided personalized counseling letters, monthly email reminders, and the opportunity to re-do the assessment questionnaire to obtain another counseling letter. At the 11-week follow-up the outcome measure was self-reported smoking abstinence in the past seven days. Analysis was done on an intention-to-treat (ITT) basis, i.e., all non-respondents to follow-up were classified as smokers. Of the 11,969 current (74%) and former (26%) smokers who completed the baseline questionnaire, 4,237 (35%) responded to the follow-up question. In the ITT analysis, abstinence rates at follow-up were higher for those in the original program than those in the modified program for both baseline-current and baseline-former smokers.

Strecher *et al* (2005) reported on a RCT of the efficacy of two different web-based smoking cessation support programs for nicotine patch users. Subjects who had purchased a particular brand of nicotine patch, connected to a website for free support materials, and met other eligibility criteria were randomly assigned to web-based programs that provided either tailored behavioral smoking cessation materials or non-tailored materials. At 6-week and 12-week follow-ups the outcome measures were self-reported 28-day continuous abstinence, and 10-week continuous abstinence respectively. Each of three different approaches to the analysis (all that enrolled, n=3,971; all who logged on, n=3,501; all who used the materials, did not use other cessation treatments and responded to follow-up, n=1,228 at 6-weeks and n=864 at 12-weeks) found that subjects in the tailored program had higher continuous abstinence rates at both 6-week and 12-week follow-ups than subjects in the non-tailored program. The subjects in the tailored program also reported higher levels of satisfaction with their program than did subjects in the non-tailored program.

Swartz and colleagues (2006) reported on a RCT of the short term efficacy of an automated internet-based smoking cessation program. Daily smokers who were considering quitting smoking in the next 30 days and who had access to the Internet were recruited through worksites and randomly assigned to the treatment condition or to the wait-list control condition. The treatment was a website program (1-2-3 Smokefree) offering demographically targeted versions (based on user age, sex, and ethnicity ascertained at baseline) and designed to approximate the experience of consulting a live smoking cessation counselor. The control group received no intervention until after the follow-up. Of 351 subjects at baseline, 197 completed the 90-day follow-up. Whether based on all subjects (ITT analysis) or just those with follow-up data, the 7-day abstinence rate at 90-day follow-up was greater for the treatment group than for the control group.

Finally, it should be mentioned that there are also special population websites in the tobacco cessation area. An example would be one for pregnant smokers (Selby *et al*, 2006, February). The rationale for this type of website is that there are groups of smokers who have special needs that would not be of great interest to most smokers but for whom an IBI can be designed that can still serve a useful purpose. The example of pregnant smokers is a good one because of the stigma that is associated with this activity. A website that is designed to help such smokers quit could help to circumvent the stigma that pregnant smokers might feel in talking about smoking in a regular health care setting. However, this type of special population website is still in its infancy so there are no published evaluation data available as of yet.

*Alcohol*

A growing number of pilot studies have reported on participants' initial evaluations of Internet sites providing self-help materials for problem drinkers (Cloud & Peacock, 2001; Cunningham *et al*, 2000; Lieberman, 2003; Linke *et al*, 2004; Linke *et al*, 2005; Saitz *et al*, 2004; Squires & Hester, 2002; Squires & Hester, 2004; Westrup *et al*, 2003). In addition, there have been several good reviews on available Internet sites, both in general population (Toll *et al*, 2003) and college student samples (Walters *et al*, 2005). However, there have only been two published RCTs to-date and both were conducted in face-to-face settings.

Hester and colleagues (2005) conducted a waiting-list control randomized trial to evaluate the Drinker's Check-up (DCU) screener. The DCU is a well-validated brief intervention developed by Miller and colleagues (Miller *et al*, 1988) that has been found to motivate problem drinkers to reduce their consumption by providing personalized feedback in a non-confrontational manner. The DCU was provided to subjects on a computer in the presence of a research assistant. 61 subjects, recruited through media ads and assessed to meet inclusion criteria (which included an AUDIT score of 8 or more, Saunders *et al*, 1993), were randomly assigned to Immediate or Delayed Treatment. At 4-week follow-up, the Immediate Treatment group reported significantly reduced drinking. The Delayed Treatment group then received the intervention, and a further 4 weeks later they had also reduced their drinking, but not significantly. Drinking for both groups was further reduced at 12-month follow-up, at which point the two groups did not differ.

Kypri and colleagues (2004) conducted a double-blind evaluation of a brief intervention program that is provided free of charge on the Internet. The intervention, as with the DCU, again comprised of an assessment and personalized feedback package. A total of 104 university students who met inclusion criteria (including an AUDIT score of 8 or more) were randomly assigned to a web-based assessment and feedback intervention (completed in the presence of a research assistant) or to a leaflet-only control group. At 6-week follow-up the intervention group reported significant reductions in drinking compared to the control group, although by 6-month follow-up the groups did not differ on consumption.

One final randomized trial is nearing completion but again uses an IBI administered in a face-to-face setting (Bischof *et al*, in press). Thus, RCTs of the effectiveness of IBIs for problem drinking, delivered and evaluated when they are administered on the Internet, are very much needed.

### *Other Drug Use*

There is almost no literature available on IBIs for other substances of abuse. One study (Jordan, 2005) did report on the usage statistics of a web-based portal for connecting drug users to health care professionals. Another pilot study by Villafranca and colleagues (in press) described the use of a website that provided personalized feedback for alcohol, tobacco and cannabis. Finally, there is a report on the use of online support groups for different substance abuse concerns (Hall & Tidwell, 2003). However, there are no outcome studies available to-date. This lack of research points to a gap in the

development and evaluation of IBIs for substance abuse that will no doubt be filled in the near future.

**Future Directions – What questions need answering and what might IBIs for substance abuse look like in the future?**

It is difficult to know what IBIs will look like five years from now. With the speed of technology development, the options for the type and design (or “look and feel”) of IBIs can only increase. However, more important than the exact design of IBIs are considerations of the issues that need to be addressed for IBIs to mature. How these questions are answered will heavily influence the nature of future IBIs.

What is greatly needed, particularly outside of the smoking arena, is the development of a stronger research base. While several trials are underway, there is almost no existing research that evaluates whether brief interventions are effective when delivered over the Internet. This question is very important because it is not safe to assume that, just because an intervention works in a face-to-face setting, it will also work when delivered over the Internet. On the Internet, more than anywhere else, the participant is able to turn the off-switch at any time so issues such as usability, length of screening assessment, and other as yet unanticipated factors could strongly influence the effectiveness of an IBI. This ability for the participant to discontinue contact also makes conducting research on IBIs challenging as issues of “lost” participants can greatly impair the validity of any research findings (Eysenbach, 2005).

One of the advantages of a more developed research base will be the potential for quality control. There is a huge amount of information available on the Internet and,

without a strong research base, there is the possibility that IBIs can do as much harm as good. With the development of high quality IBIs in which participants are informed who the developers are and what has been done to demonstrate the IBI's effectiveness, the potential participant will at least have the option of 'shopping' for a tool with a good track record.

In what other ways might IBIs evolve over the next several years? One important issue is the integration of IBIs with existing health care services. IBIs contain tools that could be very useful to clinicians in specialized health care settings. As an example, personalized feedback summaries (such as those provided by some online screeners) and access to self-help tools have been found to motivate change in problem drinkers, whether they return for treatment or not (Cunningham *et al*, 2001). In general health care settings, where there is an opportunity to address substance abuse concerns but often little time to meet these demands, the option of employing an IBI might promote the accessibility of treatment for substance abuse (Kypri & McAnally, 2005; Linke *et al*, 2005). IBIs also contain possibilities for customization, allowing modifications of tools for special populations (e.g., adding tools for mood management to a smoking cessation IBI, Munoz *et al*, 2006). In addition, the flexibility of IBIs might allow traditionally underserved patients in health care settings (e.g., those concerned about stigma; individuals with limited access to treatment services) to gain access to help for their substance abuse concerns (Cunningham *et al*, 2006 a; Postel *et al*, 2005). Finally, with the growing awareness that many individuals suffer from multiple substance abuse concerns and the fact that concurrent mental health disorders are a pressing issue, IBIs may provide one fruitful option for the provision of care for complex addictions and

mental health concerns (Cunningham *et al*, in press; Farvolden *et al*, 2003). Whatever their format, in the next few years Internet-based interventions will help to expand the diversity of treatment options available for those seeking help for substance abuse concerns.

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**Figure 1: Example personalized feedback generated by the Check Your Drinking screener**

**Figure 2: Example drinking diary summary generated by the Alcohol Help Center**

**Figure 3: Example goal setting exercise in the Alcohol Help Center**

**Figure 4: Example support group content in the Alcohol Help Center**

**Figure 5: Example supportive e-mail message sent by the Alcohol Help Center**

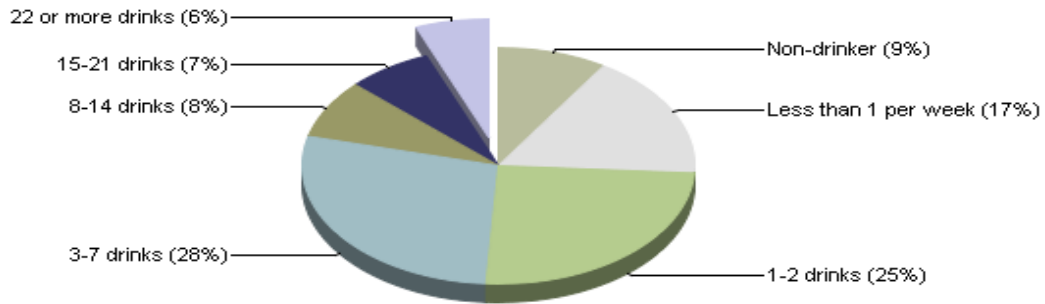


www.alcoholhelpcenter.net

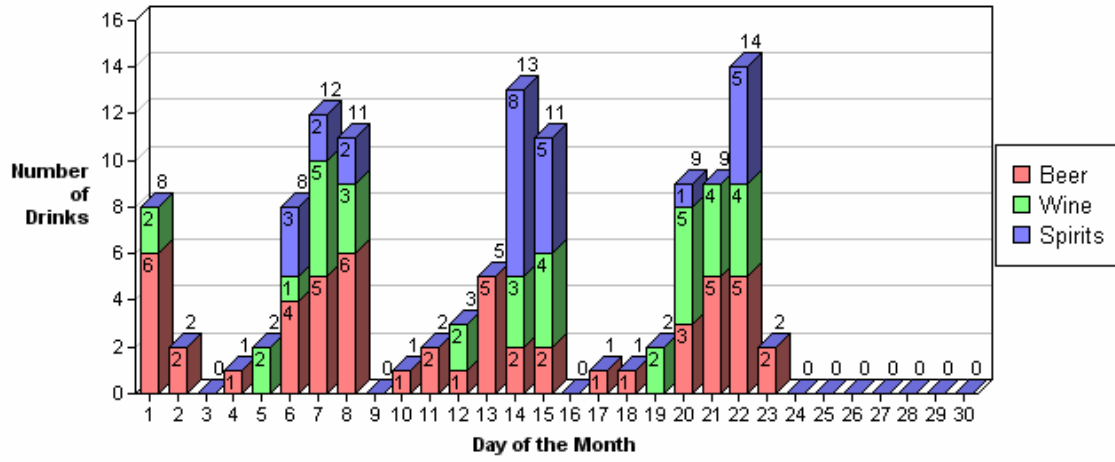
**Final Report For Bill**

The average number of drinks you reported consuming per week was 24. How do you compare to males your age from Canada? The highlighted slice of the pie chart below is where your drinking fits compares to other males in your age range from Canada.

**Average drinks per week for males aged 18 - 24 from Canada**



Drinks Per Day



Your Toolbox - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address <http://www.alcoholhelpcenter.net/program/toolbox.aspx#1> Go Links

Dealing with Urges

Health Care Professionals

Prevalence & Symptoms

Why Screen?

Brief Interventions

### Your Current Goal

Right now, I'm drinking 6 per day.

My goal is to: Cut down to this many drinks per week: 15

Click [here](#) to change your goal.

**Do you want to change your drinking goal?**

Once you've decided to change your drinking, the next question to ask yourself whether you want to cut down on your drinking or stop drinking completely.

Cutting down may not be the right goal for you if drinking at low levels causes you problems in other areas of your life. You may be the kind of person who finds it easier not to drink at all rather than having just one or two and then stopping.

**We recommend that you stop drinking completely if...**

- You're breast feeding, pregnant or trying to conceive
- You're taking medications that should not be mixed with alcohol
- You've a health problem that gets worse by drinking, like high blood pressure
- You know from experience that you never stop after one or two drinks
- You've ever experienced severe withdrawal symptoms, like hallucinations or shakes.

**Cutting down makes sense if...**

- You've been able to control your drinking in the past
- You've never experienced severe withdrawal symptoms
- You're willing to learn to control your drinking.

**Change Your Goal**

Right now, I'm drinking  drinks per day.

My new goal is to:

Cut down to this many drinks per week:

Stop drinking altogether

I'm not sure what my goal is at this point

Internet

AlcoholHelpCenter.net - Microsoft Internet Explorer

Address: http://www.alcoholhelpcenter.net/support/

**ALCOHOL HELP CENTER**    Logout    Go To Toolbox

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**Community**

- Home
- View Support Group
- Check Your Drinking

**Program Tools**

- Toolbox
- Buddies Instant Messenger
- Support Group
- Inspirational Emails
- Text Messaging Tips
- Program Bibliography

**Education**

- How Much is Too Much?
- Setting Your Goals
- Dealing with Urges

**Health Care Professionals**

- Prevalence & Symptoms
- Why Screen?
- Brief Interventions

**Welcome to the Alcohol Help Center Support Group John !**

If you're looking for advice, if you have some questions or if you need help getting through the rough spots the Alcohol Help Center Support Group is for you!

If you'd like to ask a question or participate in discussions we ask that you register for our [Online Program](#). Registration is free and it protects our community from spam. Once you register, you must log in to post. Please review our [User Agreement](#).

This Support Group is moderated by health care professionals. If you would like to contact our moderators or read their biographies, please click [here](#).

There are currently 1 members [logged in](#) and 24 guests browsing.  
 There are currently 0 members [logged in to the AHC Buddies IM](#).  
 Please welcome our newest members: coops232000, Marianne, mikeyd

[Today's Active Discussions](#)  
[Search Messages](#) | [Preferences](#)

Our Forums	Topics	Posts	Last Post
<a href="#">Introduce Yourself</a> Introduce yourself to the group.	30	223	<a href="#">Hi, I'm new from Scotland...</a> 4/19/2006 @ 4:39 AM by rene
<a href="#">Questions about the Alcohol Help Center (AHC) and AHC Tools</a> Education is power!	6	19	<a href="#">Physical Tolerance</a> 3/31/2006 @ 4:34 PM by Josie - Support Specialist
<a href="#">Setting Your Goals</a> Helping you set your strategy for cutting down or stopping entirely	6	25	<a href="#">Be Who You Are</a> 3/13/2006 @ 9:00 PM by Mouse
<a href="#">Dealing with Urges</a> Advice, support and strategies	11	44	<a href="#">being prepared</a> 4/14/2006 @ 11:47 AM by Casey - Support Specialist
<a href="#">Success Stories</a> Tell us about your success! Support and inspire others!	1	22	<a href="#">Others can benefit from v...</a> 4/4/2006 @ 10:39 AM by ster17

**NEW** - messages since your last visit Wednesday, April 19, 2006 @ 9:53:07 AM



Dear **John**,

Some people think that having a drink late at night or before bed can help them sleep better.

This simply is not true because while alcohol does bring on sleep more quickly, it disturbs sleep patterns and causes you to wake up during the night.

What else can you do to calm your nerves and help you sleep better? You might want to try deep breathing exercises, meditation, or simply reading a book or flipping through a magazine. You'll feel better in the morning!

The Alcohol Help Center Support Team

[Alcohol Help Center](#) is for educational purposes only and should not be used as a substitute for a consultation or visit with your family physician or other healthcare provider. Please read this important [legal information](#). You have received this email because you have registered for [Alcohol Help Center](#). To unsubscribe please click [here](#).