Understanding the Lifestyle Risk Reduction Model

Reducing Problems for a Lifetime

The Lifestyle Risk Reduction Model is a prevention model developed in the hopes of keeping people of all ages from experiencing alcohol and drug problems throughout their *lifetime*.

The Model's focus on the *reduction of problems,* as the ultimate outcome measure, is uncommon in the prevention field today. Many recent prevention efforts instead seek to prevent *use,* particularly use by young people and adolescents. It is not that the avoidance of problems isn't hoped for, because it generally is. However, prevention of problems is secondary to the prevention and reduction of use. The reduction of use generally entails reducing the number of people using at all, and the *frequency* with which people use. The Lifestyle Risk Reduction Model also concerns itself with reducing use; however, another more critical objective is to reduce a certain *kind* of use, *high-risk* use. The need to reduce high-risk use will be discussed at length later. For now it is helpful to understand why the Lifestyle Risk Reduction Model focuses on the reduction of problems rather than the reduction of use, and how this distinction impacts prevention programming.

First, the goal of reducing use is generally applied to prevention for adolescents and children; yet, the Lifestyle Risk Reduction Model seeks to prevent problems among adults, too. The "no use" approach became popular as the majority of alcohol and drug prevention efforts became focused on children and adolescents. Of course, the approach has merit. Children and youth need prevention services. Not only are they underage—they are the most inexperienced, and perhaps the least informed. Yet, surprisingly enough, they are not the ones having most of the alcohol and drug problems. Adults experience the majority of problems! Wouldn't it be better if we could prevent *everyone*, regardless of age, from experiencing alcohol and drug related problems? Aren't adults of concern as well as young people? Don't adults serve as role models for young people, and don't they care for them? Proponents of the Lifestyle Risk Reduction Model believe it is possible, and necessary, to prevent problems among people of *all* ages. They believe youth should not be the only target audience for prevention. Prevention efforts capable of impacting adults as well as youth require more than simple "no use" messages—and more than the single goal of reducing use. Reduction of risk for problems is also necessary.

Even programming targeted specifically at young people, though, must focus on preventing problems, rather than preventing use. There are several reasons for this. For one, in spite of our best efforts, not all children will abstain. For them, preventing problems becomes important. In addition, children become adults, and drinking eventually becomes legal for them. Yet, we have the greatest opportunity to influence them when they are children. Therefore, prevention efforts must prepare them for adulthood—as they *approach* adulthood. Simple "no use messages" do not prepare them adequately. The Lifestyle Risk Reduction Model offers an approach that encourages abstinence for young people, while also reducing risks for problems should use occur at any point in life.

Last, and perhaps most important, reducing use itself does not necessarily reduce problems! Recent research by Dr. Marc Schuckit (Schuckit, Klein, Twitchell and

Springer, '94) illustrates this. College campuses surveyed by Schuckit had an overall decrease in alcohol use between 1980 and 1992. Yet, these same campuses also experienced a dramatic increase in the number of alcohol-related problems during the same period.

How was this possible? Fewer students were drinking, but those who did drink, drank a lot, and experienced multiple problems! For example, while 22% of the students reported having blackouts from alcohol in 1980, the number increased to 40% by 1992. Blackouts are a serious symptom of someone approaching or having alcoholism. Research conducted about the same time, by Dr. Henry Wechsler (Wechsler and Isaacs, '92), showed similar results. Even though use itself decreased during the period studied, *high-risk* drinking and alcohol problems increased. Interestingly enough, the "no use" approach to prevention preceded these studies. Throughout elementary and high school, the college students surveyed were very likely exposed to the "just say no" messages characteristic of the time. This implies to us (and also to Wechsler, as we will note in detail later) that limiting efforts to just one goal, the reduction of use, is not sufficient, and in fact may be counterproductive. We must also work to reduce risks for problems by also reducing high-risk use throughout life.

The Lifestyle Risk Reduction Model offers an approach that systematically works toward increasing the incidence of abstinence among *all* ages (not just youth), while at the same time decreasing *high-risk* use and problems.

Definition of Prevention

The Lifestyle Risk Reduction Model defines prevention as:

> *A comprehensive and systematic effort to reduce the risk that an individual of any age who does not already have alcoholism or other drug addiction will experience alcohol- or drug-related health or impairment problems at any point in life.*

There are several key points to learn about the Lifestyle Risk Reduction Model in this definition of prevention. First, the definition notes that prevention is a *comprehensive and systematic* effort. Most of our field recognizes the need for comprehensiveness—which is typically measured by whether multiple strategies exist or whether multiple audiences are reached. Sometimes it is both, though they do not have to overlap. The Lifestyle Risk Reduction Model elaborates by saying that comprehensiveness involves reaching multiple audiences with multiple prevention strategies. Furthermore, comprehensiveness is achieved when these strategies are used to establish one or more of five specific conditions, and one or more of three prevention goals. So, while multiple projects scattered across a community may mean a lot of prevention programming is happening, it does not mean a comprehensive effort exists. Prevention programming based on the Lifestyle Risk Reduction Model is more strategically designed and delivered than this.

In addition to a collection of prevention strategies strategically chosen and delivered, the Lifestyle Risk Reduction Model specifies a particular educational approach to prevention. This approach is comprehensive, not because it includes all the possible information there *is* to know about alcohol and drugs, but because it only includes what people *need* to know to adopt certain preventive behaviors. But even specific information must be

systematically delivered to be effective. The Risk Reduction Model utilizes knowledge about the role of persuasion in obtaining behavior change, and uses a research-based persuasion process as the framework for presenting the information.

The Model emphasizes the reduction of risk for an *individual* and states that prevention is most likely to occur when certain conditions are present in an individual's life. These Five Conditions are at the heart of the Lifestyle Risk Reduction Model, and we will explore them in depth later.

Some models have a somewhat different primary focus than the Lifestyle Risk Reduction Model. The Public Health Model, for example, encourages thinking on a global scale and taking actions that transcend the individual, but still affect individual health. Examples of this kind of thinking include wastewater treatment, garbage disposal, fluoridating water, and laws requiring air bags. Current alcohol and drug prevention efforts based on this model rely heavily on widespread media campaigns, changes in laws and public policies, and availability of alcoholic beverages. The focus is largely on making changes that affect the *masses,* rather than the individual. For example, changes in the overall per capita consumption of alcohol would be expected to impact epidemiological data as a whole. By contrast, the Lifestyle Risk Reduction Model makes *individual* behavior change the focal point. The goal is to impact the choices of as many individuals as possible by using a collection of strategies specifically designed to accomplish individual behavior change. Nevertheless, environmental strategies like ones used by the Public Health Model are encouraged by, and included in, a Lifestyle Risk Reduction effort, along with other specifically defined strategies designed to impact the individual.

The definition further explains that *an individual of any age who does not already have alcoholism or other drug addiction* is a candidate for prevention. Therefore, the only people who are *not* candidates for prevention are those who are chemically dependent. So, kids and adults who abstain, those experimenting, light drinkers, and even non-addicted heavy drinkers, are *all* candidates for prevention. For each of these groups, it is not too late for prevention to occur. It is not too late to prevent alcoholism, drug addiction, health problems, DUI arrests, car crashes, or other impairment-related problems. Many programs based on other prevention models purposely do not address the needs of drinking kids or heavy drinking adults, assuming it is too late for prevention once they are using. Programming for these groups is not offered, yet these are the groups *most* in need of prevention services. The Risk Reduction Model includes them in the prevention audience. Prevention is for those *not already chemically dependent*, as opposed to those *not already drinking or using drugs*.

Next, the definition tells us that prevention is concerned with *any* alcohol- or drug-related health or impairment problem. Alcoholism and other drug dependencies are considered to be health problems, just like heart disease, cancer, and cirrhosis of the liver. Impairment problems include DUI arrests, crashes, fires, arguments, and other problems that occur as a result of being impaired.

Last, the definition tells us that the Lifestyle Risk Reduction Model seeks to prevent problems *for life*. As emphasized earlier, it does not seek to prevent problems only among youth.

Three Behavioral Goals

Increase Abstinence

The Lifestyle Risk Reduction Model specifies three measurable behavioral goals. While each may not be equally acceptable to all people (due to differing value systems), all three of these goals will reduce risk, and are therefore important goals for prevention professionals to pursue. The first goal is to increase abstinence for a lifetime. This means getting people who do not currently drink or use other drugs to remain abstinent for life. It also means returning some of those who do drink or use drugs to abstinence.

This may be critically important for some people; for example, those with a strong family history of alcoholism. About two thirds of American adults choose to drink, and about half of high school seniors report drinking in the previous month (Monitoring the Future, '97). Despite our best efforts, are all of them going to choose to abstain? Of course not. To make prevention work, we have to speak to people making a lot of different choices. Some are abstaining; some are not. If we make abstinence our *only* goal, we will miss the opportunity to reach more than half of the population with prevention that is relevant to them. In addition, remember the goal of reducing risk for *problems*. While abstinence supports this goal, and is always a low-risk choice for anyone of any age, it is not the *only* alcohol choice that reduces risk for problems. Many people can make other low-risk alcohol choices. However, abstinence *is* the only research-based, low-risk choice for tobacco, inhalants, and illegal drugs, because the *typical amount used* increases risk for problems. Promoting abstinence from drugs is the best way to reduce problems for people of all ages. Abstinence from alcohol and tobacco for those under age, and from illicit drugs for those of any age, will also reduce the risk for social and legal problems.

Delay Onset of Use

Many teens look forward to a time when they can drink alcohol, and do so legally. Getting them to wait until they are of legal age has real benefits. They have time to develop life skills and find alcohol and drug-free ways to live. Prevention that successfully delays the onset of use is helpful. This is true even if it succeeds in getting a 12-year old to delay using until 18! Any movement in the right direction can be considered a prevention success, so long as the prevention strategy doesn't provoke high-risk use when use finally starts! So, delaying the age of onset is a second prevention goal. Studies show that most smokers begin smoking in their teen years, and those who do not begin smoking as teenagers, typically do not ever smoke. It appears from current social research that by delaying the onset of tobacco use, we can increase the number of lifetime abstainers and prevent the numerous health problems associated with smoking or chewing tobacco. Evidence shows that smoking is a predictor of future drug use, so delaying the age of onset may also prevent use of other drugs. However, will everyone delay using until they are of legal purchase age? No, research and experience tells us they will not. Therefore, we need a third prevention goal.

Reduce High-Risk Use

A third prevention goal is to reduce high-risk use. This can be accomplished in two ways. The first is to reduce the percentage of people who currently make high-risk choices. The second is to reduce the percentage of people who do not currently make high-risk choices but who, without any prevention efforts, might do so in the future. These groups comprise the two primary target audiences for anyone working from the Lifestyle Risk Reduction Model. After all, those making high-risk choices are the ones most likely to have, and cause, the problems we want to prevent. While focusing on the first two goals

then, we must be simultaneously working to reduce high-risk use. This can be done by giving information on how to reduce risk, should one choose to drink in the future. For people under 21, this lifesaving information should be coupled with encouragement for choices consistent with the law, their own values, and the expectations of parents and other important institutions.

Over 30% of high school seniors report that they have consumed five or more drinks on one or more days in a two-week period (Monitoring the Future, '97). College students report even heavier drinking; many drinking substantially more in one day. If we can persuade those who currently drink one or two six packs on occasion (and who are unwilling to return to abstinence) to reduce their consumption, wouldn't we reduce their risk for experiencing an alcohol problem? Certainly, especially if their consumption drops to within a low-risk range identified by research.

Unfortunately, the goal of reducing high-risk use is often overlooked in the prevention field. The field has focused on getting children to abstain, and has not viewed heavy users as a prevention audience. As a result, many prevention professionals consider reducing high-risk use to be intervention, rather than prevention. They purposely do not direct prevention efforts toward heavy users. There are reasons to reconsider this belief.

First, this approach is not consistent with the rest of the health field, and for good reason. If someone making high-risk diet and exercise choices visits the doctor, that professional won't say, " Come back when you're having symptoms of heart disease." The doctor will educate the patient about choices the patient can make to reduce the risk for a heart attack, probably suggest he or she quit smoking, lower cholesterol through diet choices, and get specific amounts of exercise. The doctor gives *prevention* advice precisely *because* the patient is already making high-risk choices, but doesn't have heart disease yet. In fact, the medical profession views this patient as the most crucial prevention audience! Likewise, those making high-risk alcohol or drug choices, but not yet needing treatment for addiction, are most in need of intensive and effective prevention services.

Also, research in our own field indicates why reducing high-risk use is a crucial prevention strategy. Harvard researchers, Henry Wechsler and Nancy Isaac, compared the drinking habits of freshmen from 14 Massachusetts colleges in 1989, with the habits of freshmen in 1977 (Wechsler and Isaacs, '92). In the 12-year period, abstinence among college men increased from 3% to 9%, and among college women from 4% to 15%. Unfortunately, Wechsler and Isaac also found that the number of heavy drinkers had gone from 31% to 41% for men, and from 16% to 20% for women. Thus, more people were also choosing to drink heavily than in the past. In addition, the number of men drinking for the stated purpose of getting drunk doubled, increasing from 20% to 40%, and the number of women drinking to get drunk rose dramatically from 10% to 34%. The number of students who had gotten drunk one to three times in the past 30 days also increased from 25% to 41% for men, and from 14% to 37% for women.

The Harvard researchers reporting this data had some interesting perspectives. They observed that, "What appears to be happening is the disappearance of light drinking on college campus." In the 12-year period during which abstinence and high-risk drinking increased on college campuses, there was a corresponding decrease in the number of intermediate and light drinkers. So this was the group increasingly adopting either abstinence, or high-risk drinking, as their drinking choice. Said another way, there was

greater polarity in the drinking behaviors (either abstain or get drunk) on college campuses in 1989 than in 1977.

The increase in abstinence on college campuses would, at first glance, appear to be a prevention success. However, it is high-risk drinking, not drinking per se, that causes alcohol problems. With this in mind, it is not hard to see that, in spite of having more abstainers, college students as a whole were actually at *greater* risk of experiencing alcohol-related problems in 1989 than in 1977. The number of students drinking heavily and the frequency of heavy drinking also had increased. Again, the percent drinking *specifically* to get drunk doubled among men and increased almost three and a half times among women. It is hard to view this as a prevention success.

The Harvard researchers certainly did not see the changes from 1977 to 1989 as a success. In their report, they commented that the college freshmen studied had gone through high school during the height of the "Just Say No" era of prevention. "Given this evidence," they reported, "we question whether current educational efforts, which link drug and alcohol use and extend the 'just say no' message to alcohol, are an appropriate strategy for the persistent subgroup of heavy-drinking college students."

Research indicates that 30% of drinkers drink 90% of the alcohol consumed. (Greenfield, Giebrech, and Kavanagh, '96) Yet, only one third of that group are addicted. Thus, the other two thirds of these heavy drinkers can still benefit from prevention services. Though, some will have so strong a psychological dependence that they may need clinical help to reduce their high-risk use. The prevention professional can deliver information that allows them to understand the true nature of their risk and, when appropriate, help motivate persons to seek professional help. This is not an easy task. People do not generally want to give up something they enjoy—like high-risk alcohol choices. The Lifestyle Risk Reduction Model would say that it is possible, though, for carefully targeted prevention programs to convince a percentage of those currently making high-risk choices to make low-risk choices (including abstinence). Better yet, the Model would say that, by using the proper strategies, it is possible to be successful in increasing abstinence or low-risk use, even among some who would have—but who have not yet—made high-risk drinking choices without effective prevention efforts.

Most people would agree that "just say no" messages are too simplistic for college students. But the issue is not just a campus concern. The college students surveyed in 1989 were in elementary school when the zero tolerance approach to prevention took hold. The hope was that children exposed to "Just Say No" messages through high school would grow into adults that are drug free and that don't drink excessively. As the Wechsler research shows, though, this did not happen. A decade of "Just Say No" prevention efforts appear to have only succeeded in increasing abstinence by decreasing drinking among those students who drank small quantities infrequently—those *least* likely to experience problems anyway. High-risk drinking also increased, as did alcohol-related problems as reported by Schuckit.

These research studies tell us that the reduction of high-risk use is an essential prevention task. Prevention programs focusing only on those who are not drinking heavily or having any problems, and having the increasing of abstinence as their only goal, could show great "success," even as problems multiply. We cannot afford to ignore groups making the choices that lead to the very problems we wish to prevent!

All of this does not mean that prevention efforts shouldn't attempt to increase abstinence (Goal One) or delay the onset of use of alcohol (Goal Two). Both of these are important prevention goals. They should not, however, be the *only* prevention goals—especially for prevention programming for adults and adolescents. As the data shows, we can do prevention programming geared toward increasing abstinence all we want, but unless we *simultaneously* implement programming capable of decreasing high-risk use (Goal Three), we will not necessarily decrease risk for problems.

Professional recognition of reduction of high-risk use as a legitimate prevention goal does not mean that we have to approve of underage drinking, nor that we would even tell teens what our goal is. It simply means that we would pursue prevention programming in a way that is capable of increasing abstinence, without provoking high-risk drinking in those who will not abstain; and in a way that can actually decrease the level of use among those already making high-risk choices but who are not addicted. (With nicotine or illicit drugs, once a person has made any choice other than abstinence, they have made a high-risk choice. And, since quantity and frequency choices determine whether or not a person will have a problem, the higher their level of use, the more likely they are to have a problem.)

To summarize, the Lifestyle Risk Reduction Model promotes continued or reclaimed abstinence, as a first prevention goal. A second goal is to delay the onset of use for those who are not yet using alcohol; and a third goal is to reduce the incidence of high-risk use.

Reducing high-risk use is perhaps the most important of all the prevention goals because those making high-risk choices are most likely to have and cause the problems we most want to prevent. An effective Risk Reduction effort should be able to *simultaneously* increase abstinence, delay the onset of use, and decrease high-risk use among young people and adults, for a lifetime.

A Multidimensional Approach

The Lifestyle Risk Reduction Model was developed in the late 1970s and early 1980s by Ray Daugherty and Terry O'Bryan, co-founders of Prevention Research Institute. They spent several years conducting an intensive review of the existing research literature, looking extensively at studies on the etiology of alcoholism and research on other drugs. Based upon this comprehensive review, the Lifestyle Risk Reduction Model was formulated. The Model integrates information from biological, psychological, and social research. It places critical findings from each field within a larger context. Integrating this knowledge led to an essentially new and more carefully defined definition of what causes alcohol and drug problems, and therefore a more comprehensive approach to their prevention.

Since the model was developed primarily to understand alcoholism and other alcohol-related problems, most of its application will be to these problems. Research indicates, however, the Model applies to other drugs as well. In fact, many professionals have found it useful in understanding a variety of health and social problems.

The Lifestyle Risk Reduction Model's Statement of Cause

The Five Principles

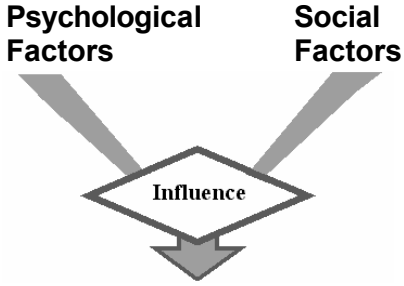
As previously mentioned, all models offer an assumption, explanation, or theory about what causes the problem being addressed. The Lifestyle Risk Reduction Model suggests that alcohol and drug-related health and impairment problems are lifestyle-related. Lifestyle-related *health* problems, such as alcoholism, heart disease, and many forms of cancer, can be understood in terms of five principles:

1. The first principle states that each person has an inborn level of biological risk (or vulnerability) for developing the health problem. While everyone has some level of biological risk, different people have different levels of biological risk. For example, while *anyone* could develop heart disease, people with a family history of heart disease have *increased* biological risk for the disease. Similarly, while both children of parents with alcoholism and children of parents without alcoholism can develop alcoholism, children of parents with alcoholism have 4X increased risk, even if raised separately from the biological parent (Goodwin, '84). Another way of saying this is that everyone has a *trigger level* for alcoholism (and other lifestyle-related health problems). Some people have a lower *trigger level* than others. Persons with a lower trigger level are at increased risk and will generally develop the disease sooner than someone with a standard trigger level.
2. The second principle states that lifestyle choices *also* present risk. Research has linked specific quantity (how much)/frequency (how often) choices to lifestyle-related health problems, like heart disease and alcoholism. How much and how often people exercise aerobically, what makes up their diet, and whether or not they smoke, all influence their risk for heart disease. How much and how often people drink influences their risk for alcoholism, cirrhosis, and other alcohol-related problems.
3. The third principle is that the level of biological risk determines how much and how often is high risk. As explained in the first principle, people who are at increased risk biologically will generally develop the disease sooner than people not at increased risk. It will take *fewer* high-risk quantity/frequency choices to trigger the disease. Therefore, how much and how often is high risk for each person depends on their biological make-up. Heart disease is similar. People with a high biological risk (low trigger level) for heart disease often develop higher levels of cholesterol than others, even when consuming less fat in their diet than others. Therefore, their guidelines for a low-risk diet would need to be different from people who have a lower level of biological risk for heart disease. Their guidelines need to be adjusted (from the standard guidelines given) in order to account for this increased risk. The same applies to alcoholism. People who have increased biological risk (low trigger level) for developing alcoholism also need different guidelines. This is true even though they may have a high tolerance to alcohol, and thus may be less impaired.
4. The fourth principle states that the only thing necessary to produce the health problem is for the level of high-risk choices to equal or surpass the level of biological risk. The health problem will then occur regardless of how smart, strong, moral, or emotionally healthy the person is. This is not saying that quantity of drinking *diagnoses* alcoholism. It is saying that quantity/frequency of drinking, along with inborn biological risk, *triggers* the alcoholism.
5. The fifth principle is that social and psychological factors play an important role in the development of lifestyle-related health problems, by influencing the quantity/frequency choices. However, they do not directly cause the problem. For

example, in heart disease, Type A personality and social norms around diet and exercise will influence the rate of heart disease. But norms or personality do not *cause* heart disease. In the same way, certain personality traits or social norms around drinking will influence the rate of alcoholism, but personality and norms do not cause alcoholism.

The Biology + Quantity/Frequency Formula

The following formula integrates these five principles. It is the basic formula for all lifestyle-related health problems including the most common type of heart disease and many other of today's health problems. Note that biological factors and quantity/frequency choices make up total risk. They interact with one another so that, depending on the choices made, the health problem either does occur, or does not occur. The quantity/frequency choices needed to trigger the health problem depend on the level of inborn biological risk. Psychological and social factors have arrows pointing to quantity/frequency choices because they influence drinking and drug choices. Examples of psychological influences include values, attitudes, levels of stress, and personality traits such as being particularly impulsive or rebellious, or gregarious. The availability of drugs and alcoholic beverages, and having friends who enjoy heavy drinking, are examples of social influences. It is important to remember that psychological and social factors influence choices, which interact with biological factors to determine whether or not a problem will occur. They do not *directly* cause the problem.



Biological Risk ***(Trigger Level)*** **+Quantity/Frequency Choices** ***(How Much/How Often)*** **= TOTAL RISK**

To summarize, the Risk Reduction Model says that alcohol and drug problems result from an interaction of the quantity and frequency choices people make and their levels of biological risk. Psychological and social factors influence the choices people make. Alcohol and drug problems can happen to anyone if they make enough high-risk choices.

While the Risk Reduction Model was first developed to address *health* problems, it applies equally well to alcohol *impairment* problems, such as drunk driving. The formula is modified for impairment problems so that trigger level, or biological vulnerability, is replaced by a tolerance level, and situations that create risk are added to the equation.

Some common views about the cause of alcohol and drug problems can be depicted using the formula. One common view is that problems happen primarily to people who are emotionally weak; perhaps they are depressed, have poor coping skills, or have low self-esteem. This view says that people who are emotionally strong do not develop

problems. They can prevent them from happening, *even if they drink heavily.* The fact that they are drinking heavily for reasons other than personal or emotional problems somehow protects them. This view assumes that alcohol and drug problems are caused by psychological factors *alone.* The view would be depicted by an arrow drawn from "psychological factors," directly to "total risk," bypassing biological factors, social factors, and quantity/frequency choices.

Psychological Traits ⇨ **Total Risk**

Another view is that alcohol and drug problems are a matter of predestination, or immunity. People are biologically either predestined or immune from developing problems. People with strong family histories of alcohol or drug problems, or who seem to be very drawn to drinking and develop problems quickly, are often thought to be predestined. On the other hand, people who seem to be able to drink large quantities without problems are thought to be immune from them. This view says that alcohol and drug problems are *all* biological; quantity/frequency choices, psychological factors, and social factors play no role. In this case, the arrow would be shown going directly from "biological factors" to "total risk," leaving out the rest of the equation.

Biology ⇨ **Total Risk**

These two common views are reasonable; there is a seed of truth in each. Yet, neither represents the full picture. Pieces vital to a full understanding of how problems develop are missing. This occurs even in the professional field, when research in only one or two disciplines is consulted. The Lifestyle Risk Reduction Model looks at all areas of research on the development of alcohol and drug problems, including research in the biological, psychological, and social arenas. It also looks at research on quantities and frequencies of consumption linked to any known problem outcome. The model integrates this knowledge, and defines the specific roles each factor plays in the development of problems. The model distinguishes between those factors that *influence* choices (psychological and social) and those that *interact* together to actually cause the problem. This distinction is useful, because it helps us recognize where our main focus for prevention should be. On those factors that influence choices? Or on those that are the direct cause of problems? On factors that we cannot control? Or on factors that we *can* control? The next section will explore these issues.

The Lifestyle Risk Reduction Model's Actions to Prevent

A Focus on Things We Can Control

For many years, members of Alcoholics Anonymous have sought guidance from a higher power, as understood by each member, and peace through the following prayer:

God, grant me the serenity
to accept the things I cannot change
to change the things I can
and the wisdom to know the difference.

Prevention professionals are faced with choices about how to spend precious time and resources, and emotional energy in the quest to prevent substance abuse problems. Professionals may choose to focus on changing the environments in which people live, on strengthening the life skills of young people, or on the drinking and drug choices

people make. The Lifestyle Risk Reduction Model was developed with the recognition that *all* of these factors contribute to substance abuse problems, and focusing on all of them are important if we are to successfully prevent substance abuse problems. However, the Model further recognizes that some things cannot be changed at all, others cannot be changed very easily or quickly, and, by comparison, others can! The best example of this is biological factors. Currently, we cannot change what nature gives us. We cannot control whether or not we have increased biological risk, or our trigger level for addiction! However, people *can* change how much and how often they drink or use drugs. And unlike biology, quantity/frequency choices *are* within our control. Lucky for prevention professionals, high-risk choices are a direct cause of problems—and we can help people change them—or adopt low-risk choices in the first place! While it is not easy to change people's drinking choices, it is a more "do-able" task than changing biological risk, personalities, or most social factors. Because of this, and because choices are a direct cause of problems, the Lifestyle Risk Reduction Model focuses first and foremost on people's quantity/frequency choices. To understand this more easily, let's turn our attention again to the campaign to prevent heart disease.

Alcohol and drug problems and heart disease have some etiological similarities: genetic predisposition; psychosocial correlates, and high-risk behaviors associated with triggering the diseases. In the campaign to prevent heart disease, the primary focus of the education and prevention campaign was on high-risk behaviors. The campaign recognized that anyone *could* develop heart disease, even though some people were genetically predisposed, and certain psychological or social traits were associated with increased incidence of heart disease. It further recognized that people cannot readily change their personality make-up, cannot generally change their social milieu, and certainly cannot change their genetic make-up. But people *can* learn to estimate their individual level of biological risk for heart disease and they *can* learn what specific dietary and exercise choices are not likely to move them closer to their own trigger levels. And they *can* control the choices they make regarding their quantity and frequency of cholesterol intake and exercise. Therefore, the heart disease campaign focused on helping people to recognize varying levels of genetic predisposition to heart disease (based on family history) and on teaching people what quantity/frequency choices about diet and exercise would reduce their risk of ever triggering the disease.

If instead the heart disease campaign had chosen to focus on psycho-social correlates to heart disease, emphasis would have been on such things as changing people with Type A personalities into people with Type B personalities. Luckily, they did not do this. If they had, however, and the campaign was successful, people with Type B personalities would not have felt as vulnerable. The approach would have encouraged the belief that "It can't happen to me! I can eat as much fatty foods and exercise as little as I want." People with Type A personalities would still not have known they could significantly reduce their level of risk for heart disease by reducing the amount of cholesterol they consume, or by increasing the amount of aerobic exercise they do. They would have simply been focusing, with the misplaced guidance of the heart disease campaign, on becoming Type B personalities.

The Lifestyle Risk Reduction Model, like the heart disease campaign, focuses on helping people change those factors that *directly cause* problems (biology interacting with choices), and that are most readily *within their control*: their quantity/frequency choices. Just as with heart disease, people cannot significantly alter their personalities, or even their social environments, without a great deal of effort. Nor can we as a field do so

without massive, long-term effort. Furthermore, to focus *exclusively* on personalities or social environments serves only to convince many people that problems cannot happen to people like them. Others, on the other hand, may come to believe they are predestined to develop problems. But everyone *can* learn to estimate his or her biological risk. And everyone *can* control the quantity/frequency choices they make (if they are not already alcohol or drug addicted), just as they can control their quantity/frequency choices of cholesterol and exercise. The Lifestyle Risk Reduction Model focuses on individual behavior change because alcohol and drug choices are within people's control, *and* a direct cause of alcohol and drug problems.

Of course, we cannot afford to ignore various psychosocial correlates. These factors do *influence* whether people make low-risk or high-risk choices. In some instances, these influences are extremely powerful and *must* be dealt with before a person can learn how to estimate their biological risk or learn what choices are low risk. Overall, though, these factors don't directly *cause* alcoholism or drug addiction. If we are to be as successful as the heart disease campaign, we must focus people on estimating biological risks and making low-risk lifestyle choices.

We recognize there are some very important differences between alcoholism and heart disease. First of all, in discussions of heart disease, we are dealing *only* with a health problem. But in any prevention effort focusing on alcohol and drug problems, we are concerned with both health problems (such as alcoholism) and impairment problems (such as drinking/driving crashes). Second, alcohol is both a legally controlled substance and a substance that has a different physiological effect on young people than adults. On the other hand, cholesterol—a clear factor in the development of heart disease—is not a controlled substance and does not seem to have different effects on young people than adults. In heart disease education, then, young people can be given the same information that anyone of any age might be given to reduce risk for heart disease. But in alcohol education, we must provide information that gives accurate guidance for a lifetime within the context of age-appropriate expectations. Last, far stronger feelings and values surround high-risk behaviors associated with alcohol and drug use than heart disease. These differences between alcoholism and heart disease present particular challenges to those of us working to prevent alcohol and drug problems.

The Five Conditions for Effective Risk Reduction

What actions does the Lifestyle Risk Reduction Model suggest are needed for effective prevention? We've already touched on the heart of it: people must learn how to estimate biological risk for alcoholism and what specific quantity/frequency choices (including abstinence) are low risk for problems. Young people need this information coupled with age-appropriate expectations. Without this information, many people will unknowingly make high-risk choices, increasing their risk for health and impairment problems.

While having relevant information about biological risk and low-risk choices has successfully led to prevention of heart disease, relevant information is often *not* enough for the prevention of alcohol and drug problems. In American society today, many young people and most adults perceive personal risk for heart disease to occur at some point in life. Perceptions of risk for alcohol and drug problems are different because people often hold one or more of the common views (discussed earlier) about what causes alcohol or drug problems. If people do not believe that problems could happen to them, they are

not likely to take their alcohol and drug choices seriously—-even if they *do* know how to estimate biological risk, and what choices are low risk or high risk.

In addition, sometimes people do not have the psychological or social support they need for making low-risk choices. Sometimes people do not know *how* to make them, even if they know what those choices are. To address these issues, the Lifestyle Risk Reduction Model identifies five conditions prevention efforts should strive to establish. These can be thought of as conditions in people's lives that increase the likelihood they will *not* experience alcohol- or drug-related problems. They are as follows:

Condition One - People come to believe: *"It (an alcohol or drug-related problem) could happen to me, and it is my quantity/frequency choices that will determine whether I experience a problem or not."*

This condition must be established for prevention to be effective. People will not care how much or how often they drink, or use drugs, if they do not feel personal vulnerability—if they do not believe it is possible for problems to happen to them. They must come to truly believe that *anyone*—not just certain kinds of people—can develop problems. They must also understand that quantity/frequency choices have *everything* to do with causing alcohol and drug problems; that choices matter. This is true in many other areas besides alcohol and drug problems. If people do not believe that AIDS could happen to them, they will not use preventive measures. If they do not believe that skin cancer is likely to happen, they are not likely to limit exposure to the sun. This condition is even relevant to non-health issues such as personal finances. People who do not believe that financial problems could possibly happen to them are not likely to take money management seriously. A variety of critical attitudes must be addressed to effectively accomplish this condition with target audiences.

For example, widely held beliefs lead people to conclude that alcohol problems happen because of the *kind of person* one is, rather than the *kind of drinking choices* one makes. If a person holds that belief (and most Americans do), then at least unconsciously, they come to believe that their drinking choices do not matter because they are too strong, too together, and definitely not "that kind of person." Many alcohol education programs unwittingly add to that perception by emphasizing psychosocial factors such as childhood experiences, feelings, or self-esteem. Students often leave alcohol education experiences fortified in their beliefs that they are not "that kind of person," and therefore do not need to worry about their drinking choices. The first task of prevention education must be to replace the belief, *"It happens because of the kind of person you are"* with the belief*, "It could happen to anyone, including me, and how much and how often I drink matters."*

With good intentions, some prevention efforts try to bring about this change in thinking simply by telling people it is true. The Lifestyle Risk Reduction Model is based on the belief and experience that such change requires a specific, intensive teaching *process* grounded in persuasive communications research. The specific information taught is grounded in biological and psychosocial research. Once this condition is successfully established, people are ready for Condition Two. They are eager to know the answer to these two questions: *"How can I know my own level of risk—where my trigger level is?"* and *"How do I know what choices are low risk?"*

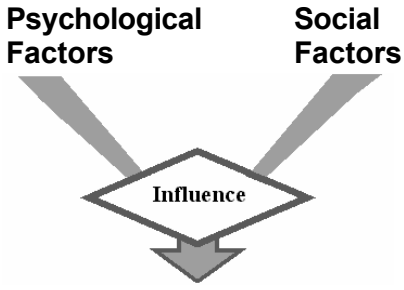
Condition Two - People learn how to estimate their level of biological risk, and learn what specific quantity/frequency choices are high risk and low risk. People can say: *"I know what to do to prevent problems."*

The terms "risk reduction," "low risk" and "high risk," though rarely used in the field at the time PRI began its work, are now widely-used, and clarification may be helpful. These terms used by PRI in reference to the Lifestyle Risk Reduction Model refer to research-based guidelines on specific quantities and frequencies of drinking. Low-risk choices (which include abstinence) are those choices *not* associated (statistically) with any known problem outcome. High-risk choices are linked to a variety of health and impairment problems. Just as people must know what quantity/frequency choices about diet and exercise will reduce risk for heart problems, they need to know what specific quantity/frequency choices decrease (or increase) risk for alcohol and drug-related problems.

Past prevention efforts tell us specificity is important. In our field, most efforts to quantify have been vague and counter-productive. To help people understand how much is too much, people have been told things like, "You know you've had too much when you have a problem." That is like saying, "You'll know you've had too much cholesterol when you've had a heart attack!" This is certainly not the kind of prevention advice people have gotten for heart disease. They've benefited from some very specific guidance, such as exactly how long and how often people should exercise aerobically, or how little saturated fat to eat per day. Without this guidance, people may believe larger amounts of cholesterol, and less exercise, to be low risk than is actually the case.

People have also heard that they should drink moderately, or responsibly, if they choose to drink. But how much is moderate? How much is responsible? To many, it is any amount that is less than their friends are drinking. On today's college campuses, two six packs of beer may seem moderate. Again, guidance needs to be specific and research-based.

Before we go on to the rest of the conditions, let's return to the Lifestyle Risk Reduction formula for understanding alcohol and drug problems.



Biological Risk ***(Trigger Level)*** **+Quantity/Frequency Choices** ***(How Much/How Often)*** **= TOTAL RISK**

Conditions One and Two deal with understanding our biological risk, knowing what low-risk quantity/frequency choices decrease risk, and developing certain low-risk attitudes. Attitudes such as "It can't happen to me" or "People who are emotionally strong won't

develop problems no matter how much they drink" influence people's quantity/frequency choices in the high-risk direction. Conditions One and Two (and Condition Four, as shown later) target the psychological factors portion of the formula, since choices are impacted through people's attitudes, knowledge, and beliefs; they become convinced that alcohol and drug problems *can* happen to *anyone,* that quantity/frequency choices *do* matter, learn to assess personal biological risk, and what choices will decrease risk. But no one makes choices in a vacuum! Group customs, values, policies and messages that influence people's choices are considered social influences. Individual attitudes and beliefs are considered psychological influences. The remaining conditions target these social and psychological factors which influence choices.

An important point about both social and psychological factors is that neither *cause* alcohol or drug problems, and addressing those factors, *alone*, won't *prevent* those problems. For instance, some people have assumed that poverty causes alcohol and drug problems, and that if we address poverty, these problems will go away. Poverty is certainly a large social problem, but alcohol and drug problems cut across all economic lines. Likewise, some people believe that as long as they are using alcohol or drugs just to have fun and not to "cope" with life, they have as much as they want without experiencing problems. They can "handle it." These are just a couple of examples of beliefs that have misled communities. The research, however, is clear. Why a person uses is not as important as how much and how often they use. A person drinking "just for the fun of it" can still develop alcoholism. Even though psychological and social factors do not directly cause problems, it is still critical to address them. They play a huge role in the alcohol and drug choices people make. The unique question asked by the Lifestyle Risk Reduction Model is whether or not psychological and social factors *support* low-risk choices--precisely because it is these choices that will prevent problems.

Condition Three - Social factors that support age-appropriate low-risk choices are strengthened, and social factors supporting high-risk choices are weakened. People can say: *"The people around me support me in making age-appropriate low-risk choices."*

We could quickly think of dozens of ways our society supports people in making low-risk heart choices. Labeling fat content on foods, making fat-free products available, and encouraging regular exercise are examples. The same thing can, and has already begun, to be done to support low-risk alcohol, tobacco, and other drug choices. Alcohol-free social events, no-smoking policies, and employer drug policies are examples. As shown, many customs, values, policies, and messages influence people's choices. If there is not adequate social support for *low-risk choices,* then the prevention professional must help individuals, groups, and communities find ways to build that support. Simply put, people must feel support for making low-risk choices, or they are not likely to make them.

Condition Four - Psychological factors supporting age-appropriate low-risk choices are strengthened, and psychological factors supporting high-risk choices are weakened. People can say: *"I value what low-risk choices will help me achieve, and I want to make age-appropriate low-risk choices."*

How do psychological factors influence choices? We often think of a person with low self-esteem taking drugs to feel more a part of a group, or to "loosen up" and have fun. No doubt, such people exist; plenty of prevention strategies attempt to build self-esteem. But it is also true that people with high self-esteem may drink in high-risk quantities and frequencies, and thus develop alcoholism, all the while believing that someone with good

self-esteem can't have an alcohol or drug problem. Thus, their beliefs also influence *them* to make high-risk choices. Someone who is rebellious may drink in ways that flaunt authority. Someone with an anti-social personality may use a socially unacceptable drug like heroin, partly because it feels good, and partly because it *is* socially unacceptable. Psychological factors are critical to target since they can be such powerful influences on quantity/frequency choices. The prevention professional must ask if people have adequate psychological support for making age-appropriate low-risk choices. And if they do not, how can this condition be improved?

Condition Five - People learn the necessary skills to make and maintain age-appropriate low-risk choices. They can say: *"I know how to make age-appropriate low-risk choices."*

People not only need motivation and support for making low-risk choices; they must actually know *how* to make low-risk choices. For instance, parents can help teach their kids how to turn down a drink without losing a friend. Knowing how to live sober, how to socialize, relax, or engage in recreation without alcohol or drugs are also necessary skills. Prevention efforts should be aimed at giving people skills they need to make age-appropriate low-risk choices.

The Five Conditions are those conditions under which change is likely to happen. People will be most likely to adopt the desired prevention behaviors (age appropriate low-risk choices) when they believe problems could happen to them and that their choices matter (Condition One); when they know, from research, what is low risk for them (Condition Two); when they have social support for making low-risk choices (Condition Three); when psychological factors are present to overcome attitudes leading to high-risk choices (Condition Four); and when they have skills needed to consistently make low-risk choices (Condition Five).

A variety of methods and activities may be used to establish these conditions. The challenge to the prevention professional is to see to it that *all* of the conditions are met with *each* target audience or group. Effective risk reduction *requires* that all Five Conditions be established. Only then, is the effort truly comprehensive and systematic.

Which conditions the prevention professional seeks to establish *first* will depend on how much support or opposition there is to Conditions Three, Four and Five. When there is little support for Conditions Three, Four and Five, establishing them would be the first priority. People without hope, or with very little sense of self worth, for example, probably will not be motivated to learn how to estimate biological risk or the range of low-risk choices. On the other hand, establishing Conditions One and Two is the first priority when there is fairly strong support for Conditions Three, Four and Five.

The Five Conditions represent the Lifestyle Risk Reduction Model's proposed actions to prevent problems. By establishing Condition One, the professional removes personal barriers to taking preventive action. Condition Two is established when the actions necessary for reduction of risk are specified. Conditions Three, Four and Five require the professional to insure there is adequate psychological and social support for the preventive actions specified. The establishment of a condition is a measurable objective. Prevention professionals can measure the extent to which they have been successful in establishing each condition.

Conditions One and Two are the core of the Lifestyle Risk Reduction Model and are unique to it. The Lifestyle Risk Reduction Model is the only prevention model that identifies the cause of problems as being biological factors interacting with quantity/frequency choices with psychological and social factors influencing these choices. Conditions Three, Four and Five are *not* unique to the Lifestyle Risk Reduction Model, in concept (although their expression with specific wording, such as the link to "low-risk choices" is unique). Some Models, in fact, would explain the cause of problems very similarly to Conditions Three, Four and Five. For example, the Developmental Model would say problems are caused by psychological factors (Condition Four). The Peer Resistance Model would say they are caused by the lack of skills for resisting peer pressure to drink or use drugs (Condition Five). The Risk and Resiliency Model would say they are caused by the interplay of psychological and social factors (Conditions Three and Four). Conditions Three, Four and Five are an integral part of the Lifestyle Risk Reduction Model, though, when they are established in support of Conditions One and Two. For example, a professional who works to establish healthy parent-child bonding is not working from the Lifestyle Risk Reduction Model even though this activity helps establish Condition Three, *unless* the activity is done in the context of, and in support of, Conditions One and Two. Activities that contradict Conditions One and Two would not be in support of the Lifestyle Risk Reduction Model.

One final note, it is important to understand the distinction between the Lifestyle Risk Reduction Model and the Lifestyle Risk Reduction curricula. There are a number of Lifestyle Risk Reduction programs, developed by the Prevention Research Institute, including programs for the military, college campuses, schools, parents, businesses, juveniles, and DUI offenders. Each is based on the Lifestyle Risk Reduction Model, and each program addresses all Five Conditions. The primarily focus of the curricula, though, are on Conditions One and Two. For some, participation in one of the programs may be enough to persuade them to adopt (or maintain) the desired behaviors. For example, they may already have sufficient enough psychological and social support for low-risk choices that once they go through the program, they are ready to make (or maintain) low-risk choices. Many people have reported changing their drinking and drug choices solely because of participation in a Lifestyle Risk Reduction program. For others, additional strategies are needed—they will need much more than the curricula can offer in order to fully establish Conditions Three, Four and Five. The Lifestyle Risk Reduction *Model* provides guidance on what additional strategies might be chosen for these persons. The Model is broader in scope than Lifestyle Risk Reduction curricula, although these programs are an expression of the Model. Thus, Lifestyle Risk Reduction programs serve as *part* of a comprehensive effort based on the Model.

Summary

We have mentioned many defining elements of the Lifestyle Risk Reduction Model—the persuasion process; the low-risk guidelines; and trigger levels, to name a few. People often think of the guidelines as the most important piece. However, by themselves, they do not adequately comprise or define the Lifestyle Risk Reduction Model. The Five Conditions, the Formula, and the Three Goals more broadly define the Model and give necessary guidance for working from the Model.