ALCOHOL WARNING LABELS

HEARING
BEFORE THE
SUBCOMMITTEE ON THE CONSUMER
OF THE
COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION
UNITED STATES SENATE
ONE HUNDREDTH CONGRESS
SECOND SESSION
ON
S. 2047
TO REQUIRE A HEALTH WARNING ON THE LABELS OF ALL ALCOHOLIC BEVERAGE CONTAINERS

AUGUST 10, 1988

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Americans who have access to health care professionals can certainly benefit from these labels. For the millions of Americans without sufficient access to health care, we believe these labels can be especially helpful.

Question 3. You have testified that you support warning labels as a means to identify alcohol as a drug, setting it apart from non-alcoholic beverages. Could ingredient labels, which I know are not on these containers, serve that purpose?

Answer. Ingredient labeling is important, and we support it. However, a listing of the ingredients in the beverage is not a substitute for the health and safety consequences of alcohol consumption.

Question 4. You view labels as part of an overall educational effort, and say that alcohol is exempted from basic consumer protection and information strategies. What is the reason for this situation, in your opinion, and what in addition to labeling is necessary?

Answer. Alcohol has been exempted from basic consumer protection and education initiatives because the political power of the alcohol beverage industry has continuously and systematically blocked efforts to extend such efforts to alcoholic beverages. We also advocate the transfer of alcohol labeling jurisdiction from BATF to the Public Health Service, i.e., F.D.A. where there is medical expertise and where this issue will be viewed primarily from the perspective of the impact which alcohol has on the health and safety of the American public.

Senator Gore. Thank you for a very strong statement.

Dr. W. Kip Viscusi, Professor of Economics at Duke University in Durham.

Welcome, and please proceed.

STATEMENT OF W. KIP VISCUSI, GEORGE G. ALLEN PROFESSOR OF ECONOMICS, DEPARTMENT OF ECONOMICS, DUKE UNIVERSITY

Mr. Viscusi. Mr. Chairman, thank you for the opportunity to testify here today.

I am the George G. Allen Professor of Economics at Duke University. My academic specialty is the economics of risk and information. I have written six books and 78 articles in this area, and I was one of the two principal consultants on the 1987 report on warnings programs prepared by Macro Systems for the National Institute on Alcoholism and Alcohol Abuse. This is the Public Health Service report that is cited in S. 2047, and it is the study that has been the most widely cited document in the debate over this proposed bill.

S. 2047 states that this Public Health Service Study concluded that health warning labels on alcoholic beverages can be effective in increasing consumer knowledge and can have an impact on consumer behavior, particularly in combination with other educational initiatives. As the principal consultant on the report, I must point out that this statement simply is not correct. The study has been misused.

The report does not specifically deal with alcoholic beverage warnings, and it contains no conclusions about whether such warnings will or will not be effective. The report merely reviews the literature on warnings generally, and it finds that in some cases warnings work and in some cases they do not.

There has been no examination of what information gaps exist nor has there been any study of how consumers will respond to alcohol warnings. It is irresponsible from a policy standpoint to launch a major national policy without any sense of what its implications will be both for alcohol use and for the credibility of other warning programs.
S. 2047 does not satisfy the criteria for a successful hazard warning program and should not be adopted by Congress.

In the course of my research, Mr. Chairman, I have identified six basic principles regarding hazard warnings. I would like to review three of these and comment briefly on why S 2047 and the proposed warnings fail to meet these principles. My written statement which is submitted for the record contains a more detailed discussion of all six points.

First, to be effective, warnings must convey new information either about risks or precautions. My research has shown that warnings can work in particular in situations where warnings play a constructive role in providing new knowledge. To note only two examples, warnings such as S. 2047’s Warning No. 2, which indicates that drinking can impair one’s driving ability, and No. 5, which in effect indicates that too much drinking can make one an alcoholic, do not provide new knowledge to consumers and would not be effective warnings.

Alcohol risks are among the most highly publicized and well known risks in society. Indeed, 81 percent of Americans regard alcohol abuse as a major national problem, and only 2 percent do not view it as a national problem. Drunken driving, the risk covered by Warning No. 2, has long been a target of public education campaigns. The risks of driving and drinking are well known, obvious and receive substantial publicity.

The addictive drug warning, No. 5, also is in line with current public perceptions of alcohol. Two-thirds of the American public agree that withdrawal from alcohol can be just as serious or life threatening as withdrawal from heroin, and an even greater percentage would describe an alcoholic as a drug addict.

What will Warning No. 5 add to this knowledge? Do we really want to suggest that moderate heroin use is in the same class as moderate drinking?

The proposed warnings appear to be largely intended to browbeat individuals into changing behavior rather than trying to convey new information that they did not already have before. As a result, they will not be effective.

Second, the most effective warnings indicate to consumers the risks that they face as well as the precautions that they must undertake to alter the risks. Two key elements are involved here. First, if labels make consumers aware of the risks, they will recognize that there is some benefit to taking precautionary action. Second, the indication on the label of what precautions to take will enable consumers to know how they can reduce the risk.

The proposed federal warnings would not accomplish these informational tasks. The warnings consist merely of risks that are brought to consumers’ attention, but there is generally no discussion of precautions. The warnings are overbroad and seem to indicate that any quantity of the product whatsoever is harmful, whereas the main societal concern is with abuse, not use.

Such undiscriminating warnings do not convey accurate information.

Third, use of on-product labels wrongly leads consumers to conclude that the product poses a high risk under all circumstances of use. Introduction of an alcohol warning label system, particularly
one that places alcohol in the same class of addictive drugs as heroin, would convey to consumers that alcoholic beverages pose a very high risk to all consumers of the product, irrespective of how much you drink. The indiscriminate scare messages proposed in S. 2047 will undermine the credibility of other warning programs because the messages run counter to the consumers' own experience, not to mention the Surgeon General's findings about moderate drinking.

Based on my review of S. 2047, I urge that it not be adopted. Warnings policies such as on-product labels do have an important and visible role to play in the U.S. economy. However, introduction of a misguided labeling policy does a disservice to those of us who are attempting to use warnings to convey legitimate risks to consumers in a meaningful fashion.

As a society, we should reserve the use of warnings for situations in which there is a significant risk whose existence or extent is not known, which merits well-defined individual precautionary action and which we can convey accurately and effectively using an on-product label. The alcoholic beverage situation simply does not fall in that class.

[The statement and questions and answers follow:]

STATEMENT OF W. KIP VISCUSI, GEORGE G. ALLEN PROFESSOR OF ECONOMICS, DEPARTMENT OF ECONOMICS, DUKE UNIVERSITY

BACKGROUND

The following is an evaluation of the proposed Federal labeling policy for alcoholic beverages as contained in S. 2047. My discussion draws substantially upon my past professional experience in this area, and I would like to elaborate on the character of this experience since it distinguishes my comments from the perspectives that other individuals might offer.

My academic research has focused almost exclusively on aspects of how workers learn, how consumers learn, and more generally on how hazard warnings affect both the risk perceptions and the behavior of these individuals.

Of the six books and seventy-eight articles that I have written, most deal with risk-related issues. My most recent book, Learning about Risk: Consumer and Worker Responses to Hazard Information, which was published in 1987 by the Harvard University Press, presents the first detailed assessment of how hazard warnings affect individual behavior. In addition, I have recently written two papers dealing with cancer warnings for food products. My role within the hazard warning literature is the following. I have published results for the only controlled experiments of the effect of hazard warnings on individual behavior. These studies take advantage not only of the insights of the discipline of economics, but also insights provided by the fields of psychology, marketing, and decision sciences. In partial recognition of the relevance of these diverse fields, I am also the founding editor of the Journal of Risk and Uncertainty, which is a multidisciplinary journal that addresses such issues.

My most extensive involvement with hazard warnings began in the early 1980s when I was asked to settle a controversy between the U.S. Office of Management and Budget and the Occupational Safety and Health Administration over the OSHA hazard communication proposal. This proposal, which would have required the labeling of all hazardous chemicals in manufacturing industries, had been appealed to Vice-President Bush after a prolonged inter-agency dispute. My analysis of the desirability of warnings in this instance led to the issuance of the regulation by the Reagan administration. The pivotal role that my analysis played in leading to the issuance of the regulation has been documented by both the New York Times and the Washington Post. Thus, my first major involvement in the hazard warning policy area was a pro-labeling analysis.

The second series of activities in which I have been involved has been to undertake a series of controlled field experiments to evaluate labels for the U.S. Environmental Protection Agency. The focus of these studies has been on the effect on con-
sumers of labels for pesticides and household chemicals. These studies, along with my other analyses of worker responses to labeling and consumer responses to food risk labels, were the first carefully controlled experiments in the literature. Thus, they enable us to better understand when labels work and which labels work, and I will draw upon these results in discussing the Federal alcohol late proposal. In recognition of this work, I was asked to be one of the two principal consultants to the 1987 report on warnings programs prepared by Macro Systems for the National Institute on Alcoholism and Alcohol Abuse. This is the Public Health Service report that is cited in point (10) of S.2047, and it is the study that has been the most widely cited document in the debate over this proposed bill. In addition, I have been asked to prepare an analysis of the role of hazard warnings in legal contexts in my capacity as Associate Reporter for the American Law Institute Project on Compensation and Liability for Products and Process Injuries. In short, I have maintained a high profile in the labeling area and have generally been associated with work that attempts to assess when and how labels can be used in a constructive and effective fashion. Thus, my academic work is generally quite supportive of the use of labeling as a policy alternative in situations in which labels will be effective.

ANALYSIS OF THE S. 2047

The approach that I will take to S. 2047 is not to consider each of the individual warnings separately, but rather to develop principles for hazard warnings and indicate how these principles relate to the proposal. My overall conclusion is that the proposed on-product labels are not appropriate, but I would not rule out the appropriateness of other forms of information provision to consumers.

1. To be effective, warnings must convey new information either about risks or precautions.

Warning efforts that are effective are those that convey new information to the individual in a convincing manner. Thus, I draw a distinction between programs of information and programs of “education” in which the object is to persuade consumers to alter their tastes. Studies in the literature indicate that such programs of persuasion have for the most part been failures. Indeed, it is because of this phenomenon that until recently most observers would have claimed that the warnings literature showed that warnings simply are not an effective policy alternative. My research has shown that there are circumstances when warnings can work—in particular, in situations where warnings do in fact play a constructive role in providing new knowledge.

In view of this phenomenon, I have concluded that S. 2047 warning No. 2 (which indicates that drinking can impair one’s driving ability) and No. 5 (which in effect indicates that too much drinking can make one an alcoholic) do not provide new knowledge to consumers and would not be effective warnings. The health risk warning No. 4 also overlaps with recent public information efforts.

Alcohol risks are among the most highly publicized and well known risks in society. Indeed, eighty-one percent of Americans regard alcohol abuse as a major national problem, and only two percent do not view it as a national problem (1985 Gallup Poll).

Drunk driving.—the risk covered by warning No. 2—has long been a target of public education campaigns. The risks of drinking and driving are well known, obvious, and receive substantial publicity. Newspaper coverage of these risks also has risen dramatically in recent years, as coverage of drunken driving risks has increased by a factor of more than 30 (Nexis count of AP stories) in the past decade.

This press coverage has included the health risks captured in Warning No. 4 as well. The number of AP articles per year on fitness and alcohol, diet and alcohol, or on the abuse of alcohol has increased more than ten-fold in the past decade. The effort of these efforts has been so great that more teenagers now tend to view alcohol as a greater risk than cigarette smoking (1985 Gallup poll).

The addictive drug warning No. 5 also is in line with current public perceptions of alcohol. Two-thirds of the American public agree that “withdrawal from alcohol can be just as serious or life threatening as withdrawal from heroin,” and an even greater percentage would describe an alcoholic as a “drug addict” (1985 Gallup poll). More to the point than these factual quiz questions is that the risks and dangers of alcoholism are universally understood. What will warning No. 5 add to this knowledge? Do we want people to believe that “moderate” heroin use carries no more risk than moderate alcohol use? In short, doesn’t it show a lack of judgment on Congress’s part to equate use of alcohol with use of hard drugs such as heroin?

Even warning No. 1 for alcohol risks to pregnant women may have little informational content. Although many people cannot define “fetal alcohol syndrome,” nit-
picking over definition of medical terms is not the issue. There is already a widespread belief that drinking can be harmful to a fetus. A 1987 Gallup poll indicated that 90 percent of the population agree strongly or somewhat that “the use of alcohol by pregnant women can cause birth defects” (Alcoholism and Addiction, July-August 1987, p. 10). This response reflects substantial awareness of the risks, particularly given the wording of the question. If the survey had dealt with alcohol abuse rather than including moderate drinking as well, no doubt a greater fraction of the population would have expressed awareness. In addition, over three-fourths of all of women of childbearing age list alcohol as a substance they should avoid (1985 New York poll). I have run open-ended memory recall studies myself, and this is a striking response for an unprompted memory recall question. Thus, even the warning related to birth defects appears to add little to consumer knowledge.

The substantial media attention devoted to these various risks may not simply have added to consumer awareness. Rather, studies of the psychology of risk perception indicate that widespread publicity often leads to overestimates of risk levels. Subsequent consumer responses may be inappropriate, and the credibility of this and other warning efforts may be jeopardized. It is noteworthy that there has been no documentation of a gap in consumer knowledge with respect to any of the risks covered by S. 2047. Demonstration of a lack of such information is an essential prerequisite before proceeding with a warning campaign. The proposed warnings appear to be largely intended to browbeat individuals into changing behavior rather than trying to convey new information that they did not already have before. As a result, they will not serve a constructive purpose.

2. The most effective warnings indicate to consumers the risks that they face as well as the precautions that they must undertake to alter the risks.

Thus, two key elements are involved. First, if labels make the consumers aware of the risk they will recognize that there is some benefit to taking precautionary actions. Second, the indication on the label of what precautions to take will enable consumers to know how they can reduce the risk. Our objective is to foster informed choice, not to reduce alcohol consumption.

The proposed Federal warnings do not fill these informational tasks. The warnings consist merely of risks that are brought to consumers’ attention, but there is generally no discussion of precautions. In effect, I would characterize these warnings as being of the form “Don’t buy this product since . . .” Such a warning policy is not only not informative, but I do not believe that it is credible. The warnings are overly broad and seem to indicate that any quantity of the product whatsoever is harmful, whereas the main societal concern is with abuse, not use.

Such undiscriminating warnings do not convey accurate information. Although pregnant women are urged not to drink at all because the safe level of consumption has not been determined, moderate drinking has generally not been associated with the risks to be communicated by the proposed labels. Indeed, the recent Surgeon General’s Report on Nutrition and Health concludes that “consumption of one to two drinks per day has not been associated with disease among healthy male and nonpregnant female adults.” The risks related to alcohol accelerate at high alcohol consumption levels, and the warnings do not make this clear. Thus, the warnings convey inaccurate information that will either misinform consumers or fail to be credible.

The warning with respect to combining alcohol and drugs seems to be particularly inappropriate. Alerting consumers to a general link does not enable them to make the distinction with respect to specific adverse interactions. Combining alcohol with barbiturates poses a quite different risk than combining alcohol with aspirin. A more sensible approach, which we now have, is to provide prominent warnings with the drugs that pose particularly large risks when associated with alcohol. In addition, physicians bear responsibility for instructing patients in the proper use of products they prescribe, and it is these prescription drugs that pose the greatest interactive danger. The pharmaceutical industry and the medical profession should not be permitted to shift their responsibility to an all-purpose warning that is not well designed for making decisions on specific drugs.

3. On-product labels are most effective for limited information transfer.

Labels can only do so much in term of the kinds and amount of information that they can convey. Labels are most useful as a warning device in situations in which reading the label is an essential part of using the product. Consumers need not read the beer, wine, or liquor warning in order to drink the product, and in many cases they do not even see the container during their use of the product.

In situations in which one wishes to convey a fairly complex message, a label is not the best alternative. I would characterize S. 2047 warnings No. 1, 3, and 4 as
being complex. They leave consumers with more questions than answers. Ideally, one would like to tell individuals much more than the simple statements that link alcohol to birth defects, that indicate possible adverse interactions with drugs, and highlight health effects such as cancer. One might want to educate people regarding the amount of alcohol that is involved in such causal links, the duration and frequency of such risk exposures and how they affect the risk, and so on. Such information is too lengthy and complex to be suitable for a short alcoholic beverage label.

More generally, it would seem that there are other information transfer mechanisms that are more appropriate for conveying this message. In the case of the warning to pregnant women, I believe that physicians provide a much more capable and credible mechanism for conveying the warning. In the case of the broader health risks of alcohol, longer treatments of the issue in the media would be much more effective, as would education programs in our schools. Health and welfare agencies at both the state and Federal level can contribute to this discussion, and some alcohol producers have done so as well. Adverse combinations of alcohol with drugs should be handled through physician advice and warning labels on the drugs for which there is potentially dangerous interaction. The dissemination of information is important, but labels on alcohol are not the most appropriate means for accomplishing this task.

4. Use of on-product labels wrongly leads consumers to conclude that the product poses a high risk under all circumstances of use.

Society has reserved the use of warning labels for only selected fairly high risk situations. Most consumer products bearing warnings are items such as toilet bowl cleaner, insecticide, lye, and similar chemical products. The use of warning labels for tobacco and food-related products intended for human consumption is limited to two cases. Warning labels for cigarettes have been in place since the 1970s.

Introduction of an alcohol warning label system, particularly one that places alcohol in the same class of addictive drugs such as heroin, would convey to consumers that alcoholic beverages pose a very high risk to all consumers of the product, irrespective of its use. I believe that doing so is misleading. In addition, such indiscriminate use of warnings for a product that poses low or no risk under conditions of moderate use will undermine the effectiveness of warnings in situations in which we do wish to call individuals’ attention to legitimate risks.

There are three reasons why the warning will suggest to consumers that this is a very risky product. First, the very presence of an on-product warning has powerful informational content. Unfortunately, the indiscriminate scare message of the label will undermine the credibility of these and other government warnings programs because it runs counter to the consumer’s own experience—and the Surgeon General’s findings—about moderate drinking. Secondly, consumers may not understand what precautions they should take. Third, the content of the warning, ranging from the use of the human hazard signal word “warning” to the warning content, including terminology such as “cancer” and “addictive,” suggests that this is a very hazardous product. If consumers take these warnings at face value, there may be some discouragement of moderate drinking, but there is likely to be little change in the behavior of the group at risk—abusive drinkers. Some consumers will be unduly alarmed, and others may dismiss it altogether because warning information that makes no distinctions regarding the amount of usage is not credible. Overall, consumer reactions may be mixed and often inappropriate.

The fundamental observation here is that the stringency of this warning is inappropriate given the risks. I know of no scientific evidence that would justify the use of such a hazard warning strategy in the case of alcoholic beverages.

5. There is no scientific evidence supporting the warnings rotation policy that is recommended.

The authors of S. 2047 have followed the cigarette example by proposing a series of rotating warnings. This approach runs counter to the warnings approach advocated in my work, which is to provide a comprehensive warning message rather than to dribble out the warnings piecemeal. The support for the rotation policy stems largely from the Madison Avenue approach to advertising in which the advertising message is altered to avoid boredom by consumers. Our intent, however, is to convey risks in a systematic manner, not to capture the imagination of a supposedly irrational consumer who is looking for the hazard warning equivalent of a catchy product slogan. It should be noted that the FTC study of rotating warnings was based on conjecture and that the Public Health Services report on alcohol warnings concluded that the Swedish study of cigarette warning rotation was seriously flawed both in terms of the sample included and the contaminating effect of publicity associated
with the warnings policy. Indeed, the Public Health Services report provides absolutely no evidence that the warnings rotation policy advocated in S. 2047 is any more effective than a single, nonrotating warning.

6. Ill-conceived warnings could have a counterproductive effect.

If individuals are warned about hazards through overly broad warning labels that lack believability then these efforts diminish the credibility of all warnings programs. Individuals who see similar warnings for other products will draw the conclusion that they are no more valid than the warnings for the alcoholic beverages and will consequently assess a low level of risk. Such a proliferation of ineffective warnings programs can only serve to diminish the efficacy of those warnings efforts that are soundly based.

The best way to conceptualize the consumer's problem is to recognize that he is faced with a variety of sources of information regarding the risks posed by a wide range of products and activities. When confronted with these choices, he must assess not only the risks involved but also he must determine whether he should process the warning information and act upon it. The more that we give individuals information that turns out to either be useless or inaccurate, the more consumers will disregard those warning statements that are valid. The "crying wolf" syndrome is a real problem for S. 2047.

It is conceivable that some warnings, such as the Statements No. 2 and 5, could become the object of ridicule by individuals as they drink alcoholic beverages. Thus, because warnings do not, in fact, provide new knowledge, consumers may regard both the warning program itself as being silly as well as the risks that are being conveyed by it. Warning No. 5, which groups alcohol with hard drugs, stigmatizes alcohol, but also diminishes the adverse status accorded to more serious drugs.

COMMENTARY ON THE PUBLIC HEALTH SERVICE STUDY

S. 2047 states that a recent Public Health Service Study concluded that health warning labels on alcoholic beverages "can be effective in increasing consumer knowledge and can have an impact on consumer behavior, particularly in combination with other educational initiatives." This is simply not true.

I served as a principal consultant on that report. The report does not specifically deal with alcohol beverage warnings. It contains no conclusions about whether such warnings will or will not be effective. The report merely reviews the literature on warnings generally, and it finds that it some cases warnings work and in some cases they do not. This report is not a bad effort, but it was not the kind of policy analysis that would be necessary to support adoption of S. 2047.

The basic difficulty is that the report was not "a study of the potential educational effects of health warning labels on alcoholic beverages," which is what Congress had requested. I have run two such studies for EPA on pesticides and household chemicals and I have just begun a third party for EPA on communicating cancer risks. Any assessment of the desirability of warnings must involve an assessment of what consumers know now about the product risks, an investigation of alternative mechanisms for improving this knowledge, and an assessment of how alternative warnings alter behavior. The Public Health Service study did none of these things. Indeed, there is almost nothing whatsoever in the report about either alcohol risks or alcohol warnings. Instead, the study was a literature review of research on warnings for products other than alcohol which is a quite different entity than an alcoholic beverage warning study.

Essentially, the report was a selectively upbeat, but reasonably thorough review of warnings efforts. Some of the more disappointing education efforts, such as many nutrition efforts and the buckle-up-for-safety seatbelt campaign, were not given sufficient emphasis in the report.

Perhaps the main conceptual deficiency in what was on balance a good literature review is that the study did not delineate when warnings will work and when they will not. There is no assurance that a warning will be effective irrespective of the context in which it is used. One cannot take the same kind of technocratic approach to warnings that one can, for example, to designing engineering controls for pollution emissions since there is an important human element involved. Warnings will only be effective if they achieve their impact by informing people accurately and credibly about the risks. If there is no gap in consumer knowledge, there is no role for warnings to play. Similarly, if warnings do not enable individuals to understand appropriate precautionary behavior, they will not work. Finally, if warnings change behavior by misleading the public or evoking undue alarm, then the policy should not be judged a success even though "effects" have been observed. Our objective is to
foster more informed decisions, not necessarily to reduce alcohol consumption per se. Abuse, not use, is the issue.

There is also an important error in S. 2047's interpretation of the PHS report. The conclusion cited in S. 2047 that "such labels can be effective in increasing consumer knowledge and can have an impact on consumer behavior, particularly in combination with other educational initiatives" is not correct. The report did not specifically pertain to alcohol warnings, whether used alone or in combination with other efforts. Although labels can increase knowledge, there is no specific evidence indicating that there is the potential or likelihood for alcohol labels to do so. Moreover, the implied synergistic role of labeling and other educational efforts is completely without scientific foundation. It is true that the simultaneity of the issuance of warnings for cigarettes and saccharin with media attention to these products makes it impossible to ascertain the relative contribution of warnings to the decreases in consumption that were observed. Saying that we can't disentangle the effects statistically, however, is quite different from saying that there is a synergy between labels and education campaigns. Indeed, warnings may have had no effect whatsoever on the observed behavior shift.

CONCLUSION

Based on my review of S. 2047, I would like to strongly urge that it not be adopted. There is little doubt that the proposed labels of S. 2047 would not be effective in this situation. Moreover, to the extent that it altered anyone's behavior, it would do so by alarming consumers rather than informing them. This kind of diffuse response is in no way a legitimate objective of a warnings policy.

Our first policy objective should be to convey to individuals the true risks associated with their actions. In one class of cases, the risks posed by their actions are well known. In the second class of cases, the risks posed by alcohol beverage consumption can be better and more accurately conveyed through physicians, pharmaceutical warnings, the media, and our schools. Thus, there is a role to be played by information, but alcohol beverage labeling is not the most effective mode in this situation. Indeed, in terms of conveying the correct risk information, use of the kind of strongly worded warnings that have been proposed would serve to misinform consumers by leading them to overestimate risks and respond inappropriately.

Our second policy objective should be to indicate to people which precautions they should take to eliminate the risk. The character of the current label is to discourage purchase. To convey a more detailed and subtle message, one should rely on mechanisms other than an on-product label.

Finally, let me close by noting that I believe that warnings policies such as on-product labels do have an important and visible role to play in the U.S. economy. Indeed, I have spent several years of my professional career examining how these labeling policies could be improved to be more effective in conveying this risk information. I believe that introduction of a misguided labeling policy does a disservice to those of us who are attempting to use warnings to convey legitimate risks to consumers in a meaningful fashion. S. 2047 serves to dilute the impact that legitimate uses of warnings have, potentially undermining not only the efficacy of warnings as a policy alternative but also possibly reducing consumer welfare as well.

As a society, we should reserve the use of warnings for situations in which there is a significant risk the existence or extent of which is unknown that merits well-defined individual precautionary action and which we can convey accurately and effectively using an on-product label. The alcoholic beverage situation simply does not fall in that class.

QUESTIONS OF SENATOR GORE AND THE ANSWERS THERE TO

Question 1. I understand that you believe that labels in general are most useful to convey new information that people don't otherwise know. You state that people know about the dangers of alcohol. How do you reconcile that with, for example, the 1985 survey showing that only 37 percent of people under 45 years of age had heard of fetal alcohol syndrome?

Answer. Although I have not seen the survey indicating that only 57% of people under age 45 had ever heard of fetal alcohol syndrome, learning of this survey result is not greatly informative. What we want to know is whether women of child-bearing age have an understanding that excessive drinking leads to birth defects. Whether they can define or have heard of the technical medical name for certain birth defects (fetal alcohol syndrome) claimed to be related to alcohol is not the issue. This issue is whether women are aware of the claimed connection between
alcohol consumption and birth defects. The polls that I cited are more pertinent to that issue than the poll referenced in your question, and the polls demonstrate that women are generally aware.

**Question 2.** Following up on that idea that labels are most useful to convey information that people don’t otherwise know—I believe that your 1986 study regarding consumer reaction to bleach and drain cleansers found that consumer’s perception of risk went up as the percentage of the label devoted to warning information increased, and also that prior knowledge and family situation had effects. If we require warning labels on alcohol, won’t that help consumers since their total knowledge will increase?

**Answer.** This question correctly identifies the fact that I have found that labels with a greater proportion of risk information were more effective. After a certain point, however, increasing the amount of information in terms of the area on the label does not have an impact, which is a result that I found in a more recent study (see Wesley Magat, W. Kip Viscusi, and Joel Huber, “Consumer Processing of Hazard Warning Information,” Journal of Risk and Uncertainty Vol. 1, No. 2 (1988), pp. 201-232). Thus, once people have gotten the warning message, adding to the prominence of the warning has no impact. In addition, in Ch. 6 of my book (W. Kip Viscusi and Wesley Magat, Learning about Risk, Harvard University Press, 1987) containing the bleach warning information results are findings for workers that indicate that if there is little or no new informational content of the warning then they will not have any effect.

Indeed, it might be helpful for me to provide a summary of the conclusion of my work on this from pages 123-124 of Learning About Risk: “The pivotal influence of the informational content of the chemical label has broad ramifications for effective risk information strategies. Past informational campaigns such as those intended to encourage seatbelt use and deter cigarette smoking have had disappointing results. The primary purpose of these efforts has been to exhort rather than to provide consumers with information that they did not already possess. The lack of a major consumer response is not surprising, because the informational content of these warnings has been low. The results of this chapter indicate that to be most effective, risk information programs must not simply convey the risk level but must also provide individuals with new information in a convincing manner.”

The basic point I am trying to make is simple. What we should first ascertain is that there is in fact a legitimate informational gap in terms of the understanding of the actual risks posed by a product and the precautions needed to reduce these risks. If the hazard warning label truly adds to consumer knowledge in situations where there is such a gap, then they will be effective. My major reservation is that the hazard warnings that were proposed for alcohol were of such a brief nature that by necessity they could only touch on the most salient points, which are already well known. I do not believe that people are born with an innate knowledge of the hazards of alcohol, but I do believe that because of the extended nature of the information that we do wish to convey that we should explore other information transfer mechanisms that are better suited to providing a richer characterization of these issues. Many of these mechanisms are already at work.

**Question 3.** You say warnings are effective if they tell about risks as well as how to avoid them. The necessity for “Use Instructions” would not seem to be a problem with alcohol, would it?

**Answer.** For hazard warnings to be effective, we should indicate to individuals both the risk and the appropriate precautions. The fact that we do not have to tell people that they should not drive if they have been drinking excessively is an issue on which we would both agree, but I would go one step further and suggest that they already understand the hazards of drunken driving as well and don’t need to be told those either.

At the more subtle end of the spectrum is the proposed warning dealing with health effects of alcohol use. Here I believe that some precautions statement is certainly necessary because the warning as it stands is misleading. All of the reports by the Surgeon General on the health risks of alcohol use deal with excessive drinking, whereas this hazard warning label makes no such distinctions.

The issue came up during the hearings as to whether the Committee represented the interests of prohibitionists. I believe that this false impression of prohibitionist leanings may have been fostered in part by the indiscriminate nature of some of the hazard warnings that failed to link the risks of alcohol use with excessive drinking as opposed to moderate drinking.

More generally, if we do not tell people what particular precautions to take, in effect the warning reads: “Don’t buy this product.” I have always advocated as a
general principle that precautions and risks be coupled in warnings, and I see no reason to abandon that approach.

*Question 4.* I understand that you also conducted a study regarding workers’ reaction to potentially harmful chemicals. Did that study show that labels achieved an effect, because the more the employee perceived him/herself to be at risk, the greater the likelihood they would request alternative employment?

Answer. The chemical worker study that I did went as follows. Workers who received information about job risks raised their risk perceptions. This change in the risk perceptions had two effects. First, to remain on the job these workers wanted a higher wage rate. Second, if they were not compensated sufficiently, they would quit. I have documented these wage and quit effects in a number of contexts, and they are quite substantial. Similarly, studies of consumer responses indicate that there will be important price effects if in fact risk perceptions are altered. In particular, fewer consumers will be willing to buy products that they know to be harmful.

*Question 5.* Articles in the Wine Spectator and Wines and Vines magazines have suggested that the wine industry take a "pro-active" stand and come out in favor of warning labels, since that will make the industry appear to be a friend of consumers and not just a profit-driven entity. Based on your experience, how do you think consumers would react to that kind of activity by the industry?

Answer. This question pertains mostly to the marketing aspects of the pro-active stances taken by firms in an industry to provide risk information to their consumers. In general, I believe that firms would not find it to be in their financial self-interest to call risks to consumer's attention. However, when there are important risks of a product and when there are ways in which consumers could reduce these risks, I believe that the industry does have a responsibility that may have regarding these issues. This information provision could be in any one of a number of ways, which may or may not involve labeling depending on the particular instance.

*Question 6.* I know that you have been involved in labeling efforts with regard to food and cancer warnings. Are there different issues involved in alcohol labels? If so, what are those issues?

Answer. Most of the risks that are being addressed with the alcohol warning proposal differ in their character from those encountered in the food cancer warning area. Typical food cancer risks are more continuous in their nature. Thus, doubling the amount of one's consumption of most carcinogenic foods is generally believed to roughly double one's cancer risk. Certainly for small changes in dose, one would not be far off in using such a linear approach.

In contrast, the alcohol risks tend to be ones where there are important thresholds. Fetal alcohol syndrome becomes a major risk with excessive drinking; driving risks and health risks of alcohol consumption also accelerate greatly with the amount of alcohol consumed on any particular occasion. Thus, we would want to make the important distinctions with respect to products that are always risky as opposed to products whose riskiness varies greatly depending on how they are used.

*Question 7.* Let us presume, for the sake of discussion, that we all agreed that warning labels should be placed on alcohol beverage containers. Based on your experience, should the labels in S. 2047 be changed to convey information clearly? If so, how?

Answer. First, let me say that I would never propose warning language without pre-testing it with a consumer sample. Thus, I believe that the best way to approach warning language issues is to actually analyze how consumers respond to the warnings rather than to rely solely on one's guess as to what effects certain language and format changes will have. For these reasons I have run a number of studies to assess these responses, which in some cases have yielded results different from what one might have expected before actually sampling consumer reactions.

Second, as I indicated above, the general approach I would take would be to outline the character of the risks imposed by the product and the nature of the precautions that are appropriate. To do this effectively, we need to have more than a sentence in terms of our warning information. Because of the extended nature of these warnings, I indicated at the time of my testimony that I thought other societal mechanisms such as physicians, drunken driving educational efforts, and media coverage seem to be better suited to giving the kind of in-depth treatment that short warnings can not.

I would emphasize that in almost all of the cases in which I have found warnings were successful, the warning message was much more detailed than in S. 2047. One need only pick up a bottle of household toilet bowl cleaner to see what I mean by a more extensive discussion of the risks and precautions associated with the product.
Question 8. You seem to suggest labeling drugs about using them with alcohol, but not vice versa (i.e., labeling alcoholic beverages about using them with drugs). Why not?

Answer. I believe quite strongly that it is the responsibility of the pharmaceutical companies to include warnings regarding adverse interactions with alcohol use. In addition to these labels, any physician prescribing these drugs has a responsibility to call to his patient's attention the risks that are present. These warnings will be targeted in nature.

In contrast, a warning on alcoholic beverages indicating that they should not be taken with drugs is not informative since it does not indicate to the consumer which adverse drug interactions are important. Only a small fraction of the drugs currently sold have such an adverse interaction effect so that it is not an efficient way to give information about the reactions.

I would also hope that we would not diffuse the responsibility for the warnings too broadly to our society. Society should hold physicians and pharmaceutical companies accountable for providing these hazard warnings, and we should not give them an opportunity to shift burdens that are appropriately theirs to another party.

When they undertake the warning, I hope that they will do so in a targeted fashion as well. For example, if doctors tell their patients that no drugs, including aspirin, should be taken with alcohol, then they are not conveying any information at all. The patient knows that only a small fraction of the drugs really causes the problem, and unless these are identified specifically for him then the warning message will have no informational content whatsoever.

Senator Gore. You prepared statement is missing several pages, at least as the committee staff has it. If you could get those to us, I would appreciate it.

Dr. Viscusi. I would be happy to.

Senator Gore. Next is Dr. Robert Lloyd, Vice Chairman of the American Council on Alcoholism of Towson, Maryland.

Please proceed with with a summary.

STATEMENT OF ROBERT C. LLOYD, PH.D., VICE CHAIR, BOARD OF DIRECTORS AND POLICY/GOVERNMENT AFFAIRS VICE CHAIR OF THE AMERICAN COUNCIL ON ALCOHOLISM, INC.

Mr. Lloyd. Thank you very much, Mr. Chairman. I appreciate this opportunity to address this committee. I am Robert C. Lloyd, a citizen volunteer with the American Council on Alcoholism for approximately the past 15 years, and since my retirement in 1983, I have been very active with ACA.

I retired from the Baltimore City Public Schools after more than 37 years as a teacher, counselor and administrator. I served as a representative of that school system to many health related organizations and agencies, including the city health department. My final position was Assistant Superintendent for Pupil Services, with a staff of about 450 persons. More detail on all of my comments is, of course, available in the prepared statement.

In talking with you today, I draw particularly on my experience first as a public school teacher, counselor and administrator, and second, my academic preparation and training at the Johns Hopkins University.

Let me share very quickly and very briefly a few selected items of information about the American Council on Alcoholism. The ACA is a national non-profit 501(c)(3) educational association. It functions through a network of state, regional and local organizations with more than 14,000 participants. Its policies are determined by an all-volunteer board of directors with strong membership input. Membership is open to all individuals, organizations, businesses, treatment centers, college/university personnel, recov-