

SEP 20 P3 39

**FDA STAKEHOLDER'S MEETING ON DIETARY SUPPLEMENTS  
REPORTER'S TRANSCRIPT OF PROCEEDINGS**

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Tuesday, July 20, 1999

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REPORTED BY: ALESIA L. COLLINS, CSR 7751 (01-79780)



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PANELISTS:

JOSEPH A. LEVITT, Chairman  
ELIZABETH A. YETLY  
DEBRA L. BOWEN  
DAVID DORSEY

1 July 20, 1999

PROCEEDINGS

9:00 a.m.

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MR. LEVITT: Let me welcome to The Panel over here the first set of panelists. The first is Christine Haller, California Poison Control System; Dr. Wallace Sampson; Linda Norton from University of the Pacific; Candy Tsourounis -- and you're going to have to tell me how to pronounce your name properly -- I apologize -- and Joyce Lashof.

I believe our first speaker also is going to be using slides, and you're welcome -- if you want to see them, you're better off sitting down where you are because if you stand at the podium, I've found, you're not going to be able to see them, which is why I actually sat down here. True confessions come to light.

While we're doing that, I will note that a transcript of this meeting is being made. It will be made available on the FDA website. The transcript from the June 8th meeting is already available on the website, and we'll give information later on how people can get access to that. We have good cooperation. Do we have the right number of people on stage?

I'm sorry, sir. Are you supposed to be up

1 here also?

2 DR. MARGEN: Yes.

3 DR. LASHOF: Yes. We had listed Dr. Margen  
4 and Dr. Lashof as co-panelists. One of us presenting,  
5 but we thought we would both be up here to answer  
6 questions.

7 MR. LEVITT: I think if we'd just be  
8 patient we can arrange for a chair. I have one right  
9 there.

10 Thank you very much. I apologize for that.  
11 With that -- again, just a reminder for the speakers.  
12 We will go through in the order of the names that I  
13 called you. You're welcome to either speak at the  
14 podium or with the microphone in front of you. The  
15 timer is right here in the front row. He'll give you  
16 a one-minute warning and then a final time, and then  
17 with that if you could please all begin by introducing  
18 yourself and where you're from and please proceed with  
19 your remarks.

20 MS. HALLER: Thank you. Good morning. I'm  
21 Dr. Christine Haller from California Poison Control,  
22 and this morning I'm going to tell you about some of  
23 our recent experiences with dietary supplements at the  
24 CPCS. You want to give me the trick on how to turn  
25 the lights down.

1 MR. LEVITT: Yes. That's my job.

2 MS. HALLER: In 1998, approximately 1 to 2%  
3 of calls to California Poison Control San Francisco  
4 were related to dietary supplements. About a third of  
5 the callers we felt had symptoms that may be  
6 attributed to dietary supplements, and a third of the  
7 callers we felt the symptoms were totally unrelated to  
8 the dietary supplements, and a third of the callers  
9 were seeking information only. And in many ways the  
10 information only calls are some of the most  
11 challenging for the Poison Control Center staff for  
12 the following reasons:

13 Oftentimes we don't know what the product  
14 is that we're dealing with. We have to ask the  
15 patient or the physician to read us the product labels  
16 so we can get an idea what the ingredients are. We  
17 rely heavily on the Poison Index System, which is made  
18 by Micromedics and gives us lots of toxicity  
19 information on chemicals and drugs but has large gaps  
20 in it related to dietary supplements.

21 In addition, many of the products have up  
22 to 15 or 20 ingredients in them, some of which may or  
23 may not be acting synergistically to produce clinical  
24 toxicity. We just don't know. Also, many poison  
25 center staff don't have a lot of experience with

1 dietary supplements and aren't able to make the  
2 connection between the caller's symptoms and the  
3 product, and there is very little scientific  
4 literature to look to for guidance.

5           To give you a couple of samples of some of  
6 these challenges, I represent two cases. One is a  
7 16-year-old male athlete who took creatinine as  
8 directed on the label for nine months and then stopped  
9 it. Within a couple of weeks of stopping it he  
10 developed fatigue, malaise and bilateral flank pain.  
11 When he was worked up medically we found he had acute  
12 renal failure with a serum creatinine of 5.5. After  
13 ruling out all likely causes of renal failure in the  
14 patient we are called asking could this be creatinine.  
15 And although there have been a couple of cases  
16 reported of renal problems with creatinine, it isn't  
17 well known by a lot of people what the mechanism is,  
18 and certainly the poison center staff aren't able to  
19 say, yes, this is creatinine.

20           Hope you don't count this in the five  
21 minutes.

22           Another example is an 18-year-old healthy  
23 male bodybuilder who took an unknown quantity of  
24 Ultimate Orange, which contains ma huang and guarana  
25 prior to working out. On the way to the gym he began

1 having seizures. He was brought to the emergency room  
2 comatose and was declared brain dead. The cause of  
3 death was listed as a massive subarachnoid bleed,  
4 which is thought to be due to ruptured aneurysm.  
5 However, no autopsy was performed, possibly because  
6 the medical staff weren't able to make a connection  
7 between a supplement and subarachnoid bleeding, and  
8 therefore we really weren't able to assess whether the  
9 ephedrine contributed to this poor man's death.

10 We suggest to the FDA for effective  
11 regulation is to focus primarily on consumer safety.  
12 The question that needs to be addressed is, Do  
13 supplements pose a significant risk of toxicity to the  
14 public? The current system for reporting adverse  
15 effects is passive. It relies on retrospective data  
16 alone. This isn't the ideal system for collecting  
17 data and probably only represents the tip of the  
18 iceberg.

19 There have been really few clinical studies  
20 to support the case report data, so it's hard to throw  
21 out a case as being attributed to dietary supplements  
22 without the literature to support it. What we  
23 recommend is a systematic approach as follows:

24 To identify the product and the ingredients  
25 thoroughly at the onset. To investigate the

1 circumstances of exposure, including the timing and  
2 pattern of use, to establish the proof of exposure  
3 through blood and urine testing and to analyze  
4 products when suspicion is high.

5           Really, steps three and four are lacking in  
6 many, many cases with adverse effect follow-up. And  
7 this way you can objectively determine the likelihood  
8 that the product is causing symptoms.

9           What's the role of Poison Control in all  
10 this? We feel that we're the ideal surveillance  
11 system for tracking adverse effects because we rely on  
12 voluntary reporting. We are well-known and trusted by  
13 consumers, we are respected for non-biased information  
14 source by both health care professionals and the  
15 industry. And we're university affiliated, so we have  
16 an interest and experience in doing research. What's  
17 really needed is a prospective study, and this of  
18 course requires funding and collaboration.

19           What we propose specifically is a 5-year  
20 pilot program to investigate every dietary supplement  
21 call made to California Poison Control, all four  
22 divisions, and we'd like to form a partnership with  
23 California Department of Health Services and FDA to  
24 thoroughly investigate each call and collect the  
25 necessary data and product information.

1                   This way you can determine the likelihood  
2 of causality by having an objective review by a team  
3 of poison center toxicologists review each symptomatic  
4 case.

5                   And to give you an example of how this  
6 partnership can work really well, we currently work  
7 with the Department of Health Services in California  
8 and here's an example of a recent case:

9                   A 42-year-old female college professor took  
10 a product called An Shu Ling for insomnia. Two and a  
11 half months later she developed nausea, abdominal pain  
12 and jaundice and was diagnosed with acute hepatitis.  
13 When no cause was identified, she called poison  
14 control. The staff became suspicious and requested a  
15 product for analysis. The Department of Health  
16 Services identified the product as jin bu huan, which  
17 is a known Chinese herb causing hepatitis. The  
18 product lot was confiscated, a public health warning  
19 was issued, and the patient made a full recovery.  
20 Thank you for your time this morning.

21                   MR. LEVITT: Thank you very much.

22                   Okay. If I -- hold one second. Are you --  
23 I'm going to pull the lights up and...I'm going to  
24 push the right button this time. First off and then  
25 on.

1 DR. SAMPSON: Very good. My name is  
2 Wallace Sampson. I'm a physician, M.D., formerly the  
3 chief of the Oncology Division of Santa Clara Valley  
4 Medical Center, private practice of medicine for 30  
5 years practicing hematology and oncology.

6 I'm presently the editor-in-chief of the  
7 Scientific Review of Alternative Medicine, a new  
8 journal about a year-and-a-half-old which publishes  
9 analysis of various alternative methods.

10 The major public health concern that we  
11 have, and I'm sure is shared by most people in the  
12 audience here is the matter of toxicity of  
13 supplements, herbs and hormonal extracts and hormone  
14 precursors, their interactions with drugs taken not  
15 only for cancer or for cardiac reasons and for others  
16 as well.

17 What's happened in the past 10 or 20 years,  
18 especially since the 1994 Act is a quite significant,  
19 if not explosive, increase in taking of supplements.  
20 In fact, the major reason for the increase between the  
21 two series of surveys done on the American public,  
22 which you're familiar with a 1993 New England Journal  
23 article and 1998 repeat survey published in the  
24 American Medical Association by the same group in  
25 Harvard which showed an increase from 34% to 40 some

1 percent in the use of alternative medicine during  
2 visits.

3           If you look at the data very carefully  
4 you'll see that visits to practitioners remain about  
5 the same, acupuncture, chiropractic, homeopathy are  
6 all low and stable. Chiropractic about 10% of the  
7 population. Acupuncture and homeopathy about 1% or  
8 less. These have not increased. What increased was  
9 the intake of herbal supplements and other types of  
10 supplements, vitamins and minerals and so forth. I  
11 think that accounts for practically the entire  
12 increase that was observed. The problems are  
13 multiple. I want to recount a similar case we had at  
14 Valley Medical Center about six years ago, seven years  
15 ago.

16           Similar case of a woman who had come in  
17 with unexplained hepatic failure and death within a  
18 week with progressive jaundice and liver failure. The  
19 only agent that could be identified in her history was  
20 a recent intake of an herbal mixture obtained in a  
21 Chinese pharmacy in downtown San Jose. Unfortunately,  
22 the state could not analyze this material. We had the  
23 material, but it was very expensive and the answer at  
24 the time was that they really didn't know what to look  
25 for. We do know that liver failure is quite common

1 with a number of herbal supplements, such as Comfrey.  
2 There are paralycidine alkaloids in many of these  
3 things which are part toxic mostly by causing clots in  
4 the veins that drain the liver and the arteries that  
5 supply. So, there's significant problems on their  
6 own.

7 Little known in this country is an epidemic  
8 of renal failure in Belgium which occurred in the  
9 early 1990's, some of you in toxicology probably know  
10 this, many of you do not. Our journal will have a  
11 complete history of this epidemic in our fall issue  
12 written by a Belgian physician. Hundreds, if not  
13 thousands of women, were taking an herbal weight  
14 reduction tea in Belgium, and it turned out that the  
15 material contained an herb known as Aristalockia, but  
16 a particular species of it which is toxic to the  
17 kidney and which a microscopic appearance and  
18 functional appearance have never been reported before,  
19 that's a very unusual type of material.

20 And what had happened was the stuff that  
21 was supposed to have been in there had a very similar  
22 sounding name in Chinese to the material that was  
23 substituted for it. And, the toxic Aristalockia  
24 species was substituted and created pretty much havoc.  
25 Over 100 women with renal failure requiring transplant

1 and/or renal dialysis.

2                   These things are real, they are going to be  
3 magnified, and the National Council Against Health  
4 Law, we have a policy dating back 10 years that all  
5 supplements taken as drugs should be treated as drugs.

6                   We regard present laws as insufficient for  
7 protection of the public health. We call upon the  
8 Food and Drug Administration to enforce what laws they  
9 can, and for Congress to reconsider this ill-advised  
10 law of 1994 in the interest of public health. Thank  
11 you.

12                   MR. LEVITT: Thank you very much. Our  
13 third speaker, Linda Norton. University of the  
14 Pacific.

15                   MS. NORTON: I'm assistant professor at  
16 University of the Pacific, my colleague, Dr. Mary  
17 Farrell, who's in the audience and I have been working  
18 at the university to help to educate new pharmacists  
19 as to problems with natural products and some of the  
20 wonderful things that natural products can do.

21                   The reason I'm here today is to talk about  
22 three issues: One is the sort of truth-in-advertising  
23 issue, the other is the quality assurance issue and  
24 the other is finally some suggestions.

25                   One of the issues that comes up as we

1 discuss this at the school of pharmacy is the Dietary  
2 Supplement Health and Education Act is in contrast to  
3 previous legislation governing medication use.

4           The previous medication legislation had  
5 required proof of safety and efficacy, and it seems  
6 that the Dietary Supplement Act makes the assumption  
7 that dietary supplements are indeed safe, that side  
8 effects are rare and drug supplement interactions are  
9 also rare. And this assumption has allowed a huge  
10 variety of products that are sometimes proven safe and  
11 sometimes proven unsafe to arrive on the shelves of  
12 variety stores, food stores, specialty stores and  
13 pharmacies. Unfortunately, the information that the  
14 consumer hears, sees or reads doesn't always tell the  
15 whole story, or even a true story.

16           For example, if you listen to many of the  
17 radio stations in the Central Valley, and the one I  
18 listen to, I hear this probably two times in my  
19 morning commute. There is a promotion for a product  
20 that is promoted to increase energy and decrease  
21 weight. The product contains Ephedra and caffeine,  
22 and the suggested daily dose of Ephedrine in the  
23 product if taken as directed is double the FDA's  
24 proposed limit of 24 milligrams a day.

25           If you do the math on the dosing

1 recommendation, each dose is three times the eight  
2 milligram dose, which is the proposed limit. This is  
3 just one example. I have others.

4           Some other things that we have seen is that  
5 herbal and natural products can potentiate or even  
6 antagonize the hypoglycemic effects of oral diabetic  
7 medications, can promote bleeding when taken with  
8 Motrin or increase the risk of elevated Digoxin  
9 levels.

10           None of these are really huge obstacles in  
11 and of themselves as health care practitioners,  
12 pharmacists, physicians, nurse practitioners and a  
13 variety of people can compensate for some of these  
14 problems.

15           Unfortunately, since the products are  
16 promoted as safe, natural, non-drug products,  
17 consumers don't often report to their physician or  
18 their pharmacist that they're taking these medications  
19 and they're not taken into consideration when a  
20 medication regiment is developed.

21           Other issues concerning natural products  
22 that I'd like to talk about also revolve around safety  
23 and quality, and they're things that are well-known.  
24 For example, an FDA document talks about the analysis  
25 of 125 Ephedra alkaloid products, and found that the

1 contents range from zero to 110 milligrams per dose.

2 A review of Ginseng products looked at 10  
3 brands and found a twenty-fold variation in content,  
4 in spite of a specified amount being on the label of  
5 the products.

6 And 1993 study showed Feverfew, showed that  
7 some of the products contained absolutely none of the  
8 active ingredients that was reported on the label.  
9 The bottomline is that in the absence of adequate  
10 guidance from the FDA, a fairly lucrative industry has  
11 flourished. Unfortunately, it's an industry that  
12 should be designated as a "buyer beware" industry.

13 I'm not suggesting that we scrap the  
14 Dietary Supplement Act or remove dietary supplements  
15 from the market. What I am suggesting is the line  
16 between drug products and dietary supplements may not  
17 really exist. Certainly some of these products have  
18 the same active ingredients or are transformed to the  
19 same active ingredients of some OTC products or even  
20 prescription products.

21 When this situation exists, it seems  
22 prudent that the more stringent standard be applied  
23 regardless of the source of the product. It shouldn't  
24 matter if it's from a natural or synthetic source, the  
25 risks are the same.

1           Additionally, we would suggest that the FDA  
2   increase their efforts or speed their efforts to  
3   review and remove products when warranted for safety  
4   issues and to review manufacturing practices more  
5   closely.

6           We would also like to see a real strong  
7   outreach to consumers. Consumers should know that  
8   "natural" does not mean safe. Dietary supplements can  
9   have side effects when they interact with medications.  
10   Dietary supplements are not reviewed by the FDA for  
11   safety and efficacy, although consumers believe that  
12   they are. And we hear that all the time in our  
13   practice.

14           Consumers have to know that there are  
15   risks. With that I would like to conclude by  
16   suggesting that you focus your efforts on increased  
17   outreach to consumers that would enhance their safety,  
18   develop some kind of a consumer-driven reporting  
19   system through that educational effort, and protect  
20   the consumer and allow the health care professionals  
21   to do their job because consumers don't understand  
22   what's going on. Thank you.

23           MR. LEVITT: Thank you. Our next speaker,  
24   if you could help me understand how to say your name  
25   properly.

1 MS. TSOUROUNIS: Candy Tsourounis. Good  
2 morning. My colleague, Dr. Kathy Dunnahy, and I are  
3 very grateful for the opportunity to comment today on  
4 the ways that the Center for Food Safety and Applied  
5 Nutrition can approve dietary supplement regulations.  
6 We are representing the UCSF School of Pharmacy, the  
7 UCSF National Center of Excellence in Women's Health  
8 and the California Pharmacists Association.

9 In 1997 approximately 42% of U.S. citizens  
10 were using some form of alternative medicine.  
11 Currently herbs and other supplements are not viewed  
12 as drugs by consumers or by the government. And many  
13 of these products; however, are no different from  
14 drugs in that they have pharmacologic properties that  
15 can alter human physiology. We are very concerned at  
16 the innuendos made with respect to product claims as  
17 consumers are in fact using these products for medical  
18 purposes.

19 We are recommending that mandatory labeling  
20 improvements should be implemented and manufacturer  
21 compliance should be strictly enforced. The current  
22 standards set forth by DSHEA are insufficient in  
23 protecting consumers against potential hazards. There  
24 is no guarantee of potency or purity. In a recent  
25 spotcheck of St. John's Wort products conducted by the

1 LA Times, the potency varied from 20% all the way up  
2 to 140% of what was indicated on the label.

3 Similarly in a survey published in the New  
4 England Journal of Medicine, 32% of Asian products  
5 distributed in the U.S. contained unsafe levels of  
6 heavy metals or were adulterated with prescription  
7 products. Standards for all products developed and  
8 marketed in the U.S. must be enforced to insure  
9 products are safe and free of contaminants.

10 Increasingly, I think very recently we have  
11 seen products marketed to seniors and children who are  
12 at great risk for adverse drug reactions. Children's  
13 products now include Cobatrol for kids. A Cobatrol  
14 supplement used to relieve anxiety, and zinc pops used  
15 to alleviate symptoms of the common cold.

16 Seniors are at risk for supplement drug  
17 interaction because of their high use of prescription  
18 drugs. Regardless of product efficacy, consumer  
19 safety must be insured.

20 Products that have scientific support of  
21 harm should not be made available to consumers until  
22 safety is established at recommended doses.

23 Furthermore, various botanicals and other products  
24 should not be marketed to women who are pregnant.

25 We are recommending against the marketing

1 of dietary supplements to children, seniors or women  
2 who are pregnant unless proof of safety is first  
3 established.

4 UCSF and other academic medical centers are  
5 very concerned about the abuse, misuse and potential  
6 consequences of these products. A focus has been  
7 placed on the evaluation of supplement efficacy using  
8 quality study design. We are fortunate to be involved  
9 in this capacity, as are many other medical centers  
10 around the country.

11 FDA should further support greater  
12 resources for funding of well-designed studies  
13 evaluating safety first and foremost and interaction  
14 potential of supplement products in children and  
15 seniors.

16 Equal in priority, however, is insuring  
17 that accidental pediatric exposures to these products  
18 are minimized. Dietary supplements currently marketed  
19 do not contain child resistant packaging. My  
20 colleague, Dr. Christine Haller from the California  
21 Poison Control Center, talked to you a little bit  
22 about their findings. We, of the academia, have also  
23 conducted a retrospective analysis of the five  
24 California Poison Control Centers. This is about a  
25 year and a half retrospective review of all calls

1 placed into the system regarding dietary supplements.

2 Of the 918 calls on dietary supplements  
3 that were received between January 1997 to June of  
4 1998, we found that 599 calls were related to dietary  
5 supplement exposures. Of these, 54% involved  
6 accidental pediatric exposure. Although the reactions  
7 that resulted were not life-threatening, some form of  
8 treatment was necessary. As the popularity of these  
9 supplements increase, so will the likelihood that  
10 children will be exposed. We are asking the FDA to  
11 take the necessary steps to require these products  
12 conform to the Poison Prevention Packaging Act of  
13 1970.

14 In summary, we are recommending the FDA  
15 prioritize the mandatory labeling improvements and  
16 that manufacture compliance be strictly enforced.  
17 That standards for all products be developed,  
18 especially products marketed in the U.S., and that the  
19 marketing of supplements to children or botanicals  
20 during pregnancy should be discontinued unless proof  
21 of safety is first established.

22 We are also recommending that the FDA  
23 support the need for dietary supplement compliance  
24 with the Poison Prevention Packaging Act of 1970 that  
25 would require child resistant packaging. Thank you.

1 MR. LEVITT: Thank you very much.

2 Dr. Lashof.

3 DR. LASHOF: Thank you. I am joined here  
4 with Professor Sheldon Margen. Sheldon is chair of  
5 the editorial board of the Wellness Letter, and I am  
6 associate chair.

7 The proliferation of so-called nutritional  
8 supplements and other products falling under the  
9 umbrella of the DSHEA is overwhelming and, at the  
10 present time, it is also almost impossible for the  
11 average consumer to be accurately informed about these  
12 products.

13 With the steady increase of these products  
14 on the market, many have seemingly crossed the line  
15 between allowable claims and those which are  
16 specifically precluded. Few of these products have  
17 been subjected to thorough clinical investigation, and  
18 our concern is that many are making unsubstantiated  
19 claims not necessarily on their labels but in their  
20 advertising and marketing literature.

21 Take, for example, the case of the  
22 supplements MSM and GH3, (Gero-Vita). In a  
23 best-selling book on MSM, the authors recommend its  
24 use for the treatment of (in alphabetical order)  
25 allergies, asthma, emphysema, fibromyalgia, heartburn,

1 lupus, osteoarthritis, rheumatoid arthritis, sinusitis  
2 and temporomandibular joint disease.

3 GH3, which is the subject of massive direct  
4 mail appeals, is said to increase circulation, relieve  
5 joint pain, decrease blood pressure, improve diabetes  
6 and make age spots disappear. Unfortunately, the only  
7 evidence presented to back up these incredible claims  
8 is anecdotal and completely unsupported by any actual  
9 controlled clinical investigation.

10 While most manufacturers abide by FDA's  
11 requirements for what the labels must say, (name of  
12 substance, amount of the specific nutrient, part of  
13 the plant used, serving size and a disclaimer that FDA  
14 has not evaluated the efficacy or safety of the  
15 product), the advertising material that accompanies  
16 these supplements completely violates the spirit and  
17 intent of the existing laws against making specific  
18 health claims for their use.

19 While the truth of advertising is a matter  
20 for the Federal Trade Commission to address, we  
21 believe that neither the FTC or the FDA is doing  
22 enough to stop these deceptive practices. We propose  
23 at a minimum that the following measures be taken:

24 FDA should be working closely with FTC to  
25 monitor and control such claims on labels and in

1 advertising and in promotional literature.

2           Two, there should be a clearing house  
3 established under the aegis of the FDA to assess what  
4 is or is not known about the various supplement  
5 products and make this information available to  
6 consumers on continuing basis, including updates on  
7 adverse reactions and unsupportable claims.

8           The widespread use of untested nutritional  
9 supplements for prevention and treatment purposes is  
10 in effect a gigantic social experiment being conducted  
11 on unknowing participants who did not have enough  
12 information available to them to consent to such  
13 testing.

14           Although research is starting to be carried  
15 out on a relatively small scale, the funding is simply  
16 not available to keep up with the growth of the  
17 industry. The supplement manufacturers seem unwilling  
18 and probably unable to fund large clinical trials  
19 because, unlike the pharmaceutical industry, they will  
20 not be ultimately able to patent their formulations.  
21 The government, which is well positioned to administer  
22 such research, does not have the available funds to  
23 conduct it without help from the industry.

24           But the door has been opened wide, and we  
25 cannot and must not wait for the present state of

1 affairs to result in another thalidomide disaster  
2 before we insist that these products meet some  
3 standards for safety and efficacy. To this end, we  
4 further recommend:

5           Legislation that would provide for a tax on  
6 manufacturers based on a percentage of gross receipts  
7 from the sale of dietary supplements. The resulting  
8 funds to be used by FDA and NIH to finance desperately  
9 needed clinical studies. Thank you.

10           MR. LEVITT: Thank you all very much.  
11 We'll then proceed. We'll each get one question, and  
12 sometimes we'll ask one and everybody gets to answer,  
13 and sometimes it's directed to more than one or two  
14 people, depending on the circumstances.

15           I'd like to pick up on the very last point  
16 mentioned but kind of ask the other speakers since  
17 you've already given us an idea.

18           Mechanisms to get more testing research  
19 done on these products. You've all raised questions  
20 about safety, about reliability, and implicitly called  
21 for better data. The question is, do you have any  
22 practical suggestions of how -- or as I said as you're  
23 thinking ahead over the next 5 to 10 years, not 5 to  
24 10 weeks, what might the mechanisms to get more  
25 rigorous testing conducted on those products to

1 provide the kind of information that you seem to be  
2 seeking? And if you could identify yourself for the  
3 transcript, please.

4 MS. TSOUROUNIS: Candy Tsourounis, UCSF  
5 School of Pharmacy. Myself and a few other people in  
6 our department are very active in requesting funds for  
7 research grants in this area, especially with the  
8 Osher Center of Integrated Medicine. I think right  
9 now we're at a point where the funds -- there are some  
10 funds available, mostly large scale grants that only  
11 the top academic medical centers have access to. I  
12 think perhaps what needs to be done is more of that  
13 funding, or more of those funding opportunities need  
14 to be applied to smaller academic medical centers who  
15 perhaps don't have the expertise -- the high-level NIH  
16 grant power to get funds such as the ones offered by  
17 the Office of Alternative Medicine.

18 This is a very interesting question because  
19 I know through our experience is that the hardest  
20 thing for us is to get a product that is pure and that  
21 is what the bottle says it is for us to even conduct  
22 these clinical trials. So I can imagine how difficult  
23 it must be for other people to do these types of  
24 studies. We have to do rigorous testing on the actual  
25 raw herb to make sure that it is what it says it is,

1 that it's not contaminated before we enroll patients.

2 I don't have an answer to your question in  
3 terms of how we get more funding. Perhaps a tax might  
4 be in order, but I can tell you that as you're  
5 probably very aware it's a very litigious environment  
6 and the lobbying effort is very strong from the herbal  
7 manufacturers. But I can't see any immediate answers  
8 unless anybody else on The Panel has.

9 MR. SAMPSON: I'll take a more radical and  
10 simple and direct approach to this. I don't think  
11 herbal supplements and many of these other supplements  
12 are regulatable, or should I say the marketing of it  
13 can guarantee what the content is. I think this has  
14 been shown repeatedly.

15 I think whatever it is that's active in St.  
16 John's Wort has a shelf life in the range of several  
17 weeks, something like 12 weeks. So, even contents  
18 assayed at the time of manufacture cannot be  
19 guaranteed to be there at the time of sale. Many of  
20 these are organic compounds that can -- that don't  
21 last forever. Everything deteriorates unless you keep  
22 it up. Everything has a shelf life. And, I think  
23 these things are almost impossible to -- if you don't  
24 know what the active ingredient is in the first place,  
25 how do you know even what to look for or to assay and

1 what to regulate?

2           So, I think what we'll be doing if we call  
3 for more research into these things is simply dancing  
4 around on the surface of a platter that has been  
5 conducted by the industry, and which is really quite  
6 diversionary.

7           I think what is required is another more  
8 basic look at what is going on, and whatever the  
9 regulatory system will be, whether it's public  
10 education or whether it's legal, it has to be quite  
11 basic. Everybody has to know that this is an  
12 unregulatable product.

13           MR. LEVITT: Please.

14           MS. HALLER: Christine Haller, Poison  
15 Control. A couple of comments.

16           I think we may be a little bit too kind in  
17 saying the herbal industry doesn't have money to fund  
18 these studies, because all you have to do is look at  
19 the price of supplements and the portfolio of many of  
20 the big industries and see that they have plenty of  
21 money for funding. I think that they should step  
22 forward. We're the likely people to do it.

23           Candy and I both have study proposals in  
24 our offices stacked up waiting for funding, and the  
25 government does tend to issue funding in large

1 quantities, and many small investigators aren't  
2 eligible for many of the grants, but we certainly can  
3 get started on some of the more promising herbs and we  
4 have the patience and we just need the funding.

5 MS. NORTON: Linda Norton. I think that  
6 there's already an easier way to do some of this,  
7 unfortunately it's retrospective rather than  
8 prospective. The FDA is able to use the existing  
9 regulations and the limited funding you have to  
10 initiate a consumer watch much like MedWatch,  
11 consumers reporting problems that they have and then  
12 follow up from within the government. So, if they  
13 include their name and a contact point, you follow up,  
14 do some investigation or offer grant opportunities for  
15 other people to do that rather than having to go  
16 through the process of doubleblind randomized  
17 controlled trials.

18 We have people already taking these  
19 products, and as the gentleman to my right stated,  
20 even if we know that the products that we're testing  
21 are pure and that are efficacious or safe, that  
22 doesn't guarantee what's on our shelves are  
23 efficacious and safe.

24 We need to know what happens with what the  
25 consumers are taking, the way that they're taking

1 them. If you can develop a system for consumer  
2 documentation of problems, we will have plenty of data  
3 on safety and ethicacy.

4 We get calls in our drug information center  
5 on a regular basis with problems, questions,  
6 documents, and for the most part we end up referring.  
7 And there, to my knowledge, is not a real good  
8 centralized area. I know public health is doing  
9 something with it, but I don't have the number to  
10 reaffirm to the FDA the report.

11 MR. LEVITT: Dr. Margen, and then we'll  
12 move onto the next question.

13 DR. MARGEN: You know, the question you  
14 asked is a difficult one, but one which is being  
15 answered in the European community in several ways,  
16 and I do think that as with any drugs or any substance  
17 which we are going to take, you would like -- we would  
18 all like some type of guarantee of safety. But if you  
19 don't know what you're taking, there is no way of  
20 knowing whether this material is safe or not.

21 I think the most important thing that the  
22 FDA can be doing over the next number of years is  
23 developing standardization procedures. Now, it may be  
24 that they will do, or require the industry to do it,  
25 and industry may have to get together, but I know

1 there's nothing in the legislation which prohibits the  
2 FDA from insisting that some type of standardization  
3 of the material be done.

4 Now, obviously we all know how difficult  
5 this is with various types of herbs, some simple or  
6 some more educated, et cetera, but with modern  
7 technicians and improving techniques in chemical  
8 analysis, et cetera, I think it is possible to develop  
9 standardization techniques which will standardize  
10 material and also have limitations on any materials  
11 which might be toxic in that material, and I think  
12 that in some way if FDA doesn't, or FDA forces the  
13 manufacturers to do it themselves and furnish the  
14 material for approval to FDA....

15 MR. LEVITT: Thank you very much. I'll  
16 pass the microphone down to Dr. Yetly.

17 DR. YETLY: Thank you very much. Several  
18 of you mentioned adversely that monitoring systems,  
19 post-market systems for monitoring safety of marketed  
20 products. I would like to ask three questions related  
21 to adverse events monitoring. What suggestions do you  
22 have to make FDA's adverse events monitoring more  
23 useful to other professionals or interested people?  
24 How best we can educate health professionals so they  
25 are aware of the need to and how to report adverse

1 events so it does get captured by the system? And  
2 thirdly, how best can FDA and other organizations,  
3 such as Poison Control Center, share data from their  
4 systems because my sense is to a large degree the  
5 reports coming in are not the same reports, so we are  
6 not getting a complete picture with the different  
7 systems.

8 MS. TSOUROUNIS: That's a hard question. I  
9 think it's getting better. I know that now we file a  
10 MedWatch report, we get a prompt follow-up call.  
11 That's very encouraging. I think the system has  
12 gotten better. A lot of people still don't know about  
13 the MedWatch system and that it applies to the dietary  
14 supplements, and I'm not sure the best way to get the  
15 word out. Notices and journals certainly reach a lot  
16 of health care professionals. We do need to develop  
17 some pathway for quick transmission of information on  
18 toxicity from Poison Control to FDA without violating  
19 confidentiality. I think that that's something that  
20 we need to work toward.

21 To address a similar issue with respect to  
22 the MedWatch form. I think that to encourage  
23 consumers to report, similar to what Dr. Norton said,  
24 that is a very good idea. In fact, consumers are  
25 reporting these things voluntarily through the Poison

1 center, so maybe having these forms available in  
2 pharmacies to start I think would be a big step in the  
3 right direction.

4           Pharmacists are available at the time of  
5 purchase when these consumers are buying these  
6 products, and they would be able to at least  
7 intervene. If the pharmacist didn't have time to fill  
8 out the form, they could give it to you, the consumer,  
9 and maybe the consumer would send it out and fill it  
10 in. It could be done the same way. Paper, mail, fax,  
11 E-mail, World Wide Web. I think consumers would be  
12 willing to do so to put forth those things. I --  
13 oftentimes I don't think they even realize it is an  
14 adverse drug reaction related to the supplement.

15           DR. LASHOF: I thank FDA for being much  
16 more proactive and taking out public service messages  
17 on the television and newspapers and warning the  
18 consumers that what they're taking are unregulated and  
19 that if there is a reaction, here is who they should  
20 call and report to. I think you have to be much more  
21 aggressive in educating the consumer as to what is  
22 going on and calling upon them to report any adverse  
23 reactions.

24           MR. MARGEN: I would second what Dr. Lashof  
25 what just said. However, I would like to add that I

1 think we all realize what a tremendous burden that FDA  
2 has with this law because you cannot be talking at all  
3 about effectiveness. You're supposed to be talking  
4 entirely about safety. And what is happening is that  
5 if you look at the health claim which you allow, et  
6 cetera, or allowed by the law -- put it that way --  
7 they don't help the consumer.

8           What happens is that the manufacturer and  
9 distributor, they are the ones that started talking  
10 about the "effectiveness" of these materials, and they  
11 won't limit themselves to the matter of structural  
12 functions. They talk about diseases and disease  
13 treatment and help. And this is what has to be  
14 counteracted. And unless that can be counteracted,  
15 whatever you say, and knowing they have very little  
16 impact, although I do think that, again, as much  
17 outreach as you can is important and getting the  
18 consumers and letting consumers know that you are  
19 waiting to hear from them is important.

20           MR. LEVITT: One last comment and we'll  
21 move on.

22           MS. NORTON: Linda Norton again. I wanted  
23 to reemphasize that even the way the question was  
24 asked implies that reports and safety will come  
25 through physicians or other health care professionals.

1 If these products are not marketed as drugs, they are  
2 marketed as safe and effective non-drug products,  
3 consumers will not always think to report their use to  
4 their health care provider.

5 Many times when they use them they're  
6 embarrassed to admit that they've used them,  
7 especially when they've had an adverse event. I think  
8 the only way you're going to capture the bulk of the  
9 reports is to go directly to consumers.

10 MedWatch is designed for health care  
11 professionals only. I think you need an ancillary  
12 system for consumers.

13 MR. LEVITT: Thank you. Dr. Bowen.

14 DR. BOWEN: Dr. Haller, I have a question  
15 for you. You pointed out that about one or two  
16 percent of your Poison Control Center calls are  
17 related to dietary supplements, about one-third  
18 requesting information and about one-third adverse  
19 event reports that could be related to the dietary  
20 supplements that's been reported.

21 I sensed from that that you considered the  
22 lack of information a problem, or the information gap  
23 a problem, not only for health care professionals, but  
24 for consumers as well as to report adverse events.

25 Do you have any comment about what you

1 think, based on your experience at the Poison Control  
2 Center, and in your opinion, is the most critical  
3 issue in terms of the severity of the events that are  
4 being reported and also in terms of the lack of  
5 information for people?

6 MS. HALLER: I think I need to clarify. Do  
7 you mean more Poison Center people or consumers?

8 DR. BOWEN: I mean, in general for  
9 consumers based on the information you receive at the  
10 Poison Central Center.

11 MS. HALLER: I think the biggest concern is  
12 sort of what has been made already is people don't  
13 view those as drugs, and when they call up with a  
14 problem such as, I got dizzy after taking Supplement  
15 A, and we say you need to stop Supplement A, it's  
16 probably causing it, people are very shocked about  
17 that.

18 I think consumers are very attached to  
19 their supplements. I'm surprised we do get so many  
20 people calling with questions about their supplements  
21 because I don't believe the public views them as being  
22 toxic. I think a real education -- and I like the  
23 idea of public notices. Just a "buyer beware"  
24 caution. These contain active ingredients that may  
25 interact with any medication you're taking. If you

1 have problems, be sure to report them to whatever  
2 entity we agree on.

3 I think consumer education is really first  
4 and foremost. In the medical field we have lot of  
5 other resources to rely on. We can do literature  
6 searches, scientific data, attend meetings and educate  
7 ourselves, but consumers don't have that capability.

8 DR. BOWEN: I have one specific question  
9 about the specific formula you laid out about  
10 follow-up for adverse events. In any of the specific  
11 cases you showed were you able to go back and document  
12 actual exposure through blood and urine tests?

13 MS. HALLER: Yes. And part of the problem  
14 is that Ephedrine is metabolized and cleared quite  
15 quickly. Oftentimes, it's a sample that was taken a  
16 day or two after the admission to the hospital. We  
17 would like to see it as soon as the call is made, this  
18 may be an adverse effect, that immediately those  
19 samples are taken and drawn and tested at that point  
20 because it's oftentimes too late to detect anything.

21 And also, as mentioned, many assays aren't  
22 developed. We know we can test Ephedrine, but  
23 Creatinine is not routinely manufactured by law, and  
24 in all the cases I presented, Billy was only the third  
25 one, but a thorough investigation occurred because we

1 knew at the outset by the poison specialists that we  
2 may have a problem with the supplement.

3 MS. BOWEN: Thank you.

4 MR. DORSEY: David Dorsey. At the current  
5 time we don't have a lot of information on those  
6 products, and given the fact, as Dr. Norton observed,  
7 that there is a presumption that they're safe and so  
8 the products get to market, and the Agency is in a  
9 position of proving unsafety to take something off the  
10 market, do you have any proposals for -- I guess I'll  
11 break the question into two parts.

12 Proposal as to what the Agency could do  
13 about that situation as a short term matter, obviously  
14 in anticipation of ultimately getting the information  
15 to allow the Agency to act?

16 And secondly, is it your sense that all of  
17 the products are in the category where we have  
18 insufficient information to take action, or what  
19 percentage -- how does the market rate that?

20 MS. TSOUROUNIS: That's a loaded question.  
21 There are -- I have researched perhaps maybe the top  
22 20 herbs, dietary supplements that consumers probably  
23 use. "I," being myself and a few other colleagues in  
24 my office, and there is adequate evidence to support  
25 the most commonly used up substances in terms of

1 ethicacy. And I know a lot of people may feel that --  
2 I have people that tell me that these things are snake  
3 oil, but there is documented ethicacy to support their  
4 use.

5           The problem here is that we don't have  
6 enough information to say that they are safe. We  
7 don't have enough information to say that, granted  
8 this study showed that it worked, that St. John's Wort  
9 helped for mild to moderate depression, we don't know  
10 that if a person goes up to the shelf and grabs a  
11 product they'll get the same result. One, they don't  
12 know that they're getting what we think they're  
13 getting.

14           There is evident also in the literature,  
15 granted spontaneous case reports of certain herbs that  
16 have caused harm, humphry, germander, a lot of these  
17 things that there is information on. I feel that  
18 those products, until further research is done, should  
19 not be available, especially in the ways that  
20 consumers in the U.S. are taking these products.

21           I also said to you that traditional Chinese  
22 medicine tells us that small amounts of germander will  
23 not cause toxicity. But the way that consumers are  
24 using germander in this country is very different from  
25 traditional Chinese medicine. They're taking it in a

1 pill form in higher doses, and it has resulted in  
2 cases of liver disease. Some cases requiring  
3 transplant, some cases leading to death. I think  
4 there is evidence in scientific literature of products  
5 that may be potentially causing us harm.

6 I think the first step here is to protect  
7 the consumer, and if you're unsure, do not have that  
8 product available. There is an inequity here. If we  
9 had any prescription products, Trobodizone being an  
10 example, with all of these cases of liver toxicity,  
11 this is product is still on the market.

12 We're saying, monitor liver functions and  
13 do all these things to improve it, yet with these  
14 other products we're not even making that  
15 recommendation. That product is being sold without  
16 any regard to laboratory testing, and we're putting  
17 the onus on the physician to say, this person is  
18 taking germander. I wonder what I need to monitor?  
19 Should I check liver function? Should I check these  
20 things? I think it's a mixed bag.

21 There is scientific evidence in the  
22 literature to warrant some of these products not to be  
23 allowed on the market until we know more to protect  
24 these consumers, and that's the bottomline, is safety.

25 MR. DORSEY: Do you want to make one very

1 quick comment?

2 MS. HALLER: I agree with the phrase, it's  
3 a large social experiment because there really isn't  
4 enough experience out there. You have 42% of American  
5 who need supplements. We have enough data to say  
6 there are categories of those supplements which aren't  
7 safe and should be removed.

8 I like to think of them in three  
9 categories: The large category, which is basically  
10 worthless, probably aren't absorbed and don't have any  
11 pharmacologic activities but they're not hurting  
12 anybody. Another category which may actually show  
13 some promise in a pharmaceutical sense, St. John's  
14 Wort and ginkgo biloba, and others which should be  
15 handled as a drug, tested and treated as a drug. And  
16 then the other category which has too much risk and  
17 too much toxicity, regardless of any therapeutic  
18 effect it may have. And these include ephedrine,  
19 creatinine all fit the pattern of toxic herbs.  
20 There's no saving grace in keeping those on the  
21 market. They should just be removed.

22 MR. LEVITT: If I could then ask to go to  
23 Dr. Haller, go with you and right down the row.  
24 Thinking ahead a year, if the FDA could accomplish one  
25 significant goal a year from now, you've waved your

1 magic wand, what would you have that be?

2 MS. HALLER: I would like to see ephedrine  
3 banned from dietary supplements.

4 MR. LEVITT: Thank you. Dr. Sampson.

5 MR. SAMPSON: It's hard for me to say. The  
6 only thing I would like to see is the suggestion here  
7 that these forms -- reporting forms be on the shelf  
8 and present with every product. A folder for  
9 recording toxic effects, not just on the shelf, but  
10 accompanying every product.

11 MR. LEVITT: Thank you.

12 MS. NORTON: Since we've already talked  
13 about the consumer reporting form, I would like to see  
14 the FDA have a process in place whereby they can  
15 withdraw in a rapid manner products that have adequate  
16 report of harm. Right now we have a number of reports  
17 of harm and no process by which these products have  
18 been removed.

19 MS. TSOUROUNIS: I would say manufacturer  
20 accountability for purity.

21 MS. LASHOF: I would say a major public  
22 information campaign directed to the consumer and  
23 informing them what we do know, what we don't know,  
24 what's safe, what's not safe.

25 MR. MARGEN: I would recommend that the FDA

1 begin to examine what is being done in other countries  
2 as well as here in order to begin to carefully require  
3 standardization of the compounds so that we are  
4 standardized and know as much as we can about what is  
5 the specific compound, and that this is printed in  
6 some way on the label.

7 I'm merely saying we need to be  
8 standardized. What so many companies do now means  
9 absolutely nothing, so I feel that standardization --  
10 and with standardization must come the manner and the  
11 prevention of misinterpretation of what this material  
12 might do and the prevention of that material.

13 MR. LEVITT. With that I want to thank you  
14 all very much for your participation this morning.  
15 You set an excellent example for the rest to try and  
16 follow today.

17 Come this way off the stage. Right down  
18 the middle. There is a set of stairs there. While  
19 you're doing that, we will welcome up the other side  
20 the second panel, which is David Copenhaver from  
21 Napa/Sonoma County DA's office; James Waddell from the  
22 State Department of Health and Ronald McGlashan from  
23 the San Francisco Office of Public Affairs.

24 Maybe you have in your folder, I'm not  
25 sure, a list of acronyms and abbreviations that help

1 you as you go down. I know I feel more comfortable --  
2 being from Washington, I have a withdrawal system --  
3 if I don't have my acronyms as I go through the list  
4 here, I'm lost. I see it is useful.

5 Are we missing -- it looks like we're  
6 missing one of our speakers. Okay. Our last speaker,  
7 if he comes in late, we'll try to work him in. If we  
8 could start right at the end. If you could introduce  
9 yourself and please proceed.

10 MR. COPENHAVER: Dave Copenhaver, Sonoma  
11 County DA's office. In this case I worked jointly  
12 with the Napa County DA's office, but I take a little  
13 bit different tact in the proceeding obviously because  
14 I'm not a doctor or anything of that sort. My doctor  
15 is in law; not in medicine. However, the State of  
16 California has a system of laws which here are the  
17 FDC, and we call the FDC Act, and there's a number of  
18 other consumer protection laws.

19 And one of the things that we have been  
20 getting on a regular basis, and many cases since  
21 President Kennedy, deals with in this case the weight  
22 loss industry and the gross overamplification of what  
23 those products that they're marketing, can do. And we  
24 find it extremely difficult also with respect to one  
25 case called Techtron, which has now been settled

1     sometime back, and I would suggest as was suggested  
2     before that it was possible that the FDA and the FDC  
3     find some way to develop a means of correlating  
4     information and also possibly setting up a system or  
5     means of assistance for other agencies, non-federal  
6     agencies, to be of some assistance.

7             The Techtron case involved an electronic  
8     stimulus device that was alleged to stimulate the  
9     muscles so that you could lose weight without any  
10    exercise or anything else, you just started utilizing  
11    this machine and it would stimulate all this muscle  
12    growth, build muscle tissue, do all those kinds of  
13    things to change your body structure without any  
14    exercise or anything else.

15            When we attempted to try to get some  
16    definition of what was or wasn't within the category  
17    that the FDA would handle, we got passed from one  
18    place to another. It took a great deal of time to  
19    finally get a determination that in fact this device  
20    should be registered both in California with federal  
21    people as a medical device, which it was not. We did  
22    get an injunction, but I think that there needs to be  
23    if possible some way to develop a part of -- or, a  
24    liaison office that will allow for un-federal  
25    enforcement agencies to get information that they

1 need.

2 I won't even begin to represent that I have  
3 expertise with regard to what the FDA covers. We need  
4 help, and we need a great deal of assistance when we  
5 do file cases that are grossly inappropriately  
6 advertised. We've got one case in which there are  
7 some eight or nine substances in the products, and  
8 they claim that it will -- you know, you take their  
9 pill three times a day and you'll lose 30 pounds in a  
10 month.

11 One of the big factors: Chromium  
12 Picolinate was really big a couple of years ago, and  
13 actually there are three consent decrees in existence  
14 with the FDC because they have shown that it doesn't  
15 do anything. One of the big pushes now is with  
16 Chiton. You can call it Chitozyme, Chitosole,  
17 whatever you want to call it. It's a shellfish  
18 product that's supposed to acquire and actually absorb  
19 fat, so if you take this product you can eat  
20 hamburgers, greasy this and that, and it lumps all  
21 this stuff and it won't be absorbed into your system.

22 The problem with that is there's also a  
23 safety factor which poses a real problem because  
24 there's at least some suggestion that long term use of  
25 Chitozyme, or Chiton, may cause your body to be unable

1 to absorb really useful needed nutrients, Vitamin B  
2 and stuff like that, and we don't know what the long  
3 term effects are yet. They're claiming it's totally  
4 safe, 100% safe. It may be for a short term, but we  
5 don't know what people are using for long term, and  
6 that's a real problem.

7 And the other aspect is simply that in many  
8 of these circumstances the product that is being  
9 hocked or sold has never had any real studies done to  
10 it. The product itself has never been tested for  
11 efficacy or proof of its advertised use.

12 MR. LEVITT: Thank you very much. Our  
13 second speaker, please proceed.

14 MR. Waddell: Good morning. My name is  
15 James Waddell, here representing the Association of  
16 Food and Drug Officials today.

17 The Association of Food and Drug Officials  
18 is a non-profit, professional association consisting  
19 of state, federal, and local regulatory officials as  
20 members, with industry representatives participating  
21 as associate members. From its inception almost 103  
22 years ago, AFDO has recognized the need for uniform  
23 laws and regulations governing food and drugs and has  
24 actively promoted uniformity and cooperation within  
25 the regulatory arena. AFDO strongly supports, FDA's

1 desire to develop effective strategies for achieving  
2 proper regulation of dietary supplements.

3           With respect to enhancement of consumer  
4 safety, FDA needs to follow the recommendations of the  
5 president's commission on dietary supplement labels  
6 and address areas where the label is inadequate or for  
7 safe us.

8           Some dietary supplements, particularly  
9 products containing botanical ingredients, have potent  
10 pharmacological activity resulting in potential drug  
11 interaction with both over-the-counter and  
12 prescription drugs and other incompatibilities, such  
13 as with alcohol. In addition, some supplements,  
14 notably those with either sedating or stimulant  
15 actions, have the potential for abuse. Consumers need  
16 to be aware, not only of the potential drug  
17 interactions, but that exceeding the recommended  
18 dosage or taking some supplements for extended periods  
19 of time can be harmful. Women who are pregnant,  
20 trying to conceive or are on estrogen therapy should  
21 not consume products that contain melatonin or steroid  
22 hormone precursors like DHEA or androstenedione.  
23 Supplement containing ingredients with psychotropic  
24 effects, like St. John's Wort, valerian and cava cava  
25 need informative labeling to assure that consumers do

1 not suffer adverse effects from using these products  
2 in combination with prescription psychotropic drugs.  
3 In addition, many products are contraindicated for  
4 persons with underlying medical conditions such as  
5 hypertension and diabetes.

6           FDA, with industry input, must answer the  
7 question, where is the appropriate place for consumers  
8 to receive accurate information to ensure safe use of  
9 dietary supplements, from print media and advertising,  
10 from manufacturers of OTC and prescription drugs with  
11 may interact with supplements, or from manufacturers  
12 of dietary supplements in the or of additional  
13 labeling information? A product is misbranded if its  
14 label fails to disclose material facts or consequences  
15 of customary use. Does the lack of adequate warnings  
16 on dietary supplements fall into the category of  
17 failing to disclose material facts or consequences of  
18 customary use?

19           Many consumers, including many senior  
20 citizens take a wide variety of prescription and  
21 over-the-counter drugs along with dietary supplements  
22 without discussing the use of supplements with their  
23 doctors or fully understanding the possible  
24 interactions, contraindications, or symptoms of  
25 adverse reactions. To ensure safe use, these

1 individuals need to be informed to talk to their  
2 doctors when taking supplements and provided with  
3 information on possible interactions,  
4 contraindications, or symptoms of adverse reactions  
5 from supplements.

6           The President's commission pointed to  
7 labeling as the appropriate mechanism. FDA has  
8 identified an enhancement of consumer safety as its  
9 first priority of dietary supplement safety and the  
10 development of health-related product labeling  
11 regulations, its second priority. AFDO concurs with  
12 this important emphasis and hopes that the issues  
13 raised by the President's commission with respect to  
14 additional label information and warnings remains the  
15 highest priority.

16           AFDO has praised FDA's new labeling  
17 regulations, but they really don't go far enough. If  
18 a product is to be used in a fashion similar to an OTC  
19 or prescription drug, with many supplements are (for  
20 example, dieter's teas for constipation or St. John's  
21 Wort for mild to moderate depression), then an  
22 accurate statement of potency of the active  
23 ingredients must be disclosed. Knowing the quantity  
24 of the botanical present does not necessarily bear any  
25 declaration of the active ingredient, which is the

1 overriding issue for appropriate use.

2           In addition, AFDO feels that some products  
3 should not be provided to infants. Florida had one  
4 death associated with an infant being given Echinacea  
5 instead of traditional therapies. Some of the herbal  
6 books declare that Echinacea should not be used by  
7 children under the age of two. Again, whose  
8 responsibility is it to provide consumers with this  
9 information, which unfortunately, is not uniform  
10 source to source?

11           AFDO previously testified, and continues to  
12 believe, that FDA and the industry need to jointly  
13 approach the issues from a stance that solutions in  
14 this area will benefit industry by assuring that  
15 consumers have educated access to dietary supplements  
16 while protecting the industry from product liability  
17 due to inadequate label information for safe use. One  
18 mechanism would be the development of a compendium on  
19 dietary supplements beginning with herbals with  
20 pharmaceutical properties. This compendium would  
21 include possible interactions with other supplements,  
22 OTC and prescription drugs, adverse reactions, and  
23 contraindications. The compendium would also provide  
24 information on the levels of active ingredients  
25 expected to be effective. Currently, FDA's website

1 provides limited information on a few dietary  
2 supplements and refers consumers to Office of Dietary  
3 Supplements or Institute of Aging at the NIH.  
4 Searching the office of Dietary Supplements database  
5 is not a viable option for most of the public,  
6 particularly elderly persons.

7           On March 26th, 1999, the Canadian Minister  
8 of Health announced the creation of the office of  
9 natural health products that would provide Canadian  
10 consumers with the assurance of safe products while  
11 continuing to ensure access to a full range of health  
12 products. AFDO recommends that FDA examine the system  
13 used by the Canadian office of natural health products  
14 and perhaps partner with the office to allow eventual  
15 harmonization of both countries systems to assure  
16 access to and the safety of a full range of dietary  
17 supplements and natural health products.

18           AFDO believes that the FDA should make  
19 finalization of Good Manufacturing Practices  
20 regulations a high priority. While the industry has  
21 provided guidance through voluntary GMPs, it is  
22 important that the FDA finalize uniform standards for  
23 GMPs, which can be adopted by states to ensure  
24 national uniformity. These GMPs should give special  
25 emphasis to quality of raw ingredients, impurities or

1 contaminants, and levels of active ingredients. This  
2 emphasis is essential since much of the raw material  
3 is produced outside of this country, and therefore  
4 outside the oversight of FDA.

5 FDA also needs to actively enforce its laws  
6 and regulations relating to dietary supplements that  
7 protect consumer health. AFDO understands the  
8 tremendous workload that DSHEA created for the Agency  
9 at the same time other critical issues were on the  
10 table. However, the explosion of the use of dietary  
11 supplements, which is projected to increase even more,  
12 mandates that resources to address these issues be  
13 given a very high priority within FDA. AFDO pledges  
14 its support to FDA with respect to integrating dietary  
15 supplement activities with state programs.

16 While it's essential for consumers to have  
17 access to dietary supplements, it is incumbent on  
18 government with industry's input to ensure that  
19 consumers have accurate and appropriate information of  
20 products to enable safe and knowledgeable use.

21 MR. LEVITT: Thank you. Thank you very  
22 much. With a minute to spare.

23 Let me begin by asking this question: At  
24 the beginning of the meeting I talked a lot about  
25 thinking long term, but I also had a series of

1 questions on thinking on things we ought to be doing  
2 very quickly just because of urgency.

3 In either of your experiences in law  
4 enforcement and health enforcement, are there safety  
5 issues out there lingering right now that we ought to  
6 be sure we're addressing that you have not yet seen at  
7 the FDA?

8 MR. COPENHAVER: Well, I'm not sure whether  
9 I have seen all the FDA activity, so I can't speak to  
10 that.

11 MR. LEVITT: That's all right.

12 MR. COPENHAVER: The experiences that we  
13 have had tend to indicate that the -- I ran into  
14 problems, or we ran into problems with the Fair  
15 Packaging and Labeling Act, which then is impacted by  
16 other legislation which leaves the door wide open for  
17 the labeling on these types of supplements because the  
18 food supplement aspect is dropped from it so you could  
19 drive a Mack truck through it. They don't have to  
20 label anything. They don't have to label it properly,  
21 they don't have to put down the ingredients and how  
22 much is in there.

23 Even if you want to analyze it, you have no  
24 way of knowing what is supposed to be there. And one  
25 of the trick words was, I guess, this is "proprietary"

1 something. Well, from the standpoint of safety as  
2 well as honesty in the marketplace and the  
3 advertisement, you really need to know what the amount  
4 of the substance is.

5           You need to know that even if it's going to  
6 be a substance that, per se, such as Chitin is  
7 supposed to absorb X amount of fat in your system that  
8 keeps your system from absorbing that fact so that  
9 you're excreting without ever absorbing it. I have  
10 some question about that, but nevertheless assuming  
11 that for the sake of argument that that's true, the  
12 problem still comes down to, how much is really in the  
13 product that you're taking?

14           How much is accurate with regard to what  
15 they claim it will do versus what the amount of the  
16 substance is? In other words, if you have 10  
17 milligrams and they're claiming it will take out --  
18 you know, three of these pills a day, it will take out  
19 over a thousand grams of fat -- without knowing what  
20 the substance is or how much of it, you don't know  
21 whether it's actually working or not. Not to mention  
22 the fact of the safety factor for long term which  
23 isn't known yet. That's another issue that I would  
24 like to see some change in, if not legislatively, some  
25 other way possible to bring the Fair Packaging

1 Labeling Act up to par with these types of products so  
2 they have to accurately represent what is in the  
3 product.

4 MR. LEVITT: Thank you. Mr. Waddell.

5 MR. Waddell: I believe that as the  
6 previous speaker had said the adverse even reporting  
7 needs to be dramatically improved, and I also believe  
8 that consumer and health professional education and  
9 awareness of the potential public health concerns with  
10 dietary supplements needs to be of elevated  
11 importance.

12 MR. LEVITT: Thank you. Let me pass the  
13 microphone to Dr. Yetly.

14 DR. YETLY: Thank you. As I'm sure you're  
15 both aware, the safety standard under DSHEA is  
16 significant or unreasonable risk under conditions of  
17 use. How do you recommend that FDA interpret that  
18 phrase and how then should the Agency also translate  
19 that into enforcement action?

20 MR. Waddell: I don't have an answer for  
21 that question because I'm not really familiar with  
22 that particular aspects of the FDA. Somebody would  
23 have to define the formula so it's more than what I'm  
24 aware of. But, it seems to me that if there was some  
25 way to make regulations that would make -- as it's

1    been stated before, would really inform everyone of  
2    the risks that are directly involved and if they're  
3    known, the problems.  Without having adequate  
4    reporting, we don't even know what the efforts are of  
5    some of these things.

6           MR. LEVITT:  Okay.  Thank you.  Dr. Bowen.

7           DR. BOWEN:  Mr. Waddell, you mentioned that  
8    FDA should finalize GMPs and there should be uniform  
9    standards across the country.  Relative to that issue  
10   one of the questions in the federal registry that the  
11   gentleman rendered earlier is question number 3, how  
12   should FDA proceed to do that?  Should these GMPs be  
13   mandatory or should they be issued as guidance to the  
14   uniformity?  What do you mean?

15           MR. Waddell:  I believe that the GMPs ought  
16   to be mandatory, similar to how they are for OTC and  
17   prescription drug products, as well as food.  It would  
18   be appropriate to have dietary supplement GMPs in  
19   place.

20           MR. LEVITT:  Mr. Dorsey.

21           MR. DORSEY:  You're suggesting in your  
22   comments, Mr. Waddell, that there was scientific  
23   evidence about the dangers of certain risks -- perhaps  
24   the word you used is of certain supplements that are  
25   currently on the market -- and unfortunately I wasn't

1 quick enough to take note, to get those down.

2 Do you believe that the scientific evidence  
3 is such that the Agency would have evidence to support  
4 a ruling to require such labeling?

5 MR. Waddell: I believe there are  
6 substances out there that present enough of a consumer  
7 concern that the scientific evidence is available and  
8 there ought to be action taken. I think ephedrine,  
9 which has been mentioned earlier today, is one  
10 particular substance that needs to be addressed right  
11 away.

12 MR. LEVITT: Thank you very much. Before I  
13 let you off the stage, you need to answer my one last  
14 question. Waive your magic wand a year from now, FDA  
15 could do one thing, it would be?

16 MR. COPENHAVER: From our standpoint it  
17 would be to set up some form of a correlated liaison  
18 office of some sort or a person to whom -- with whom  
19 -- or persons in combination with both the FDA and the  
20 FTC that local agencies could contact to get answers  
21 to questions we desperately need when we're looking at  
22 companies who are grossly overstating products on the  
23 market.

24 We have one company that is spending a  
25 million dollars a week in advertising. And if they're

1 spending a million dollars a week in advertising, you  
2 can imagine how much money they're taking in from the  
3 products they're selling. And if you see there are  
4 infommercials on television, it's like looking at --  
5 it's a very slick version of the old western movies  
6 you used to see with the gentleman that came in with  
7 the fancy wagon and elixir from the deepest darkest  
8 African nation only known to Nephertiti, and it will  
9 kill all the ills in the world for you.

10           And it's almost that bad. And they have  
11 tricks and gimmicks and everything else. It's like  
12 having the small, 4 point print where they do their  
13 disclaimer. It goes by so fast, unless you're looking  
14 for it you will never notice it. And all the other  
15 stuff is, you can do anything you want with that, it  
16 will take care of your ills.

17           In some cases it will lower your blood  
18 cholesterol, it will help improve your liver function.  
19 These are things that I believe are body functional  
20 changes that the FDA basically does have control over.  
21 They're saying that these things will do these things  
22 as well as cause you to lose weight.

23           I think that they should be controlled, and  
24 in order for us to be able to have the tools that we  
25 need, we need to get answers from those who know. And

1 I'm -- getting information from the people who know as  
2 soon as I can get it, and if I can't get it it's very  
3 difficult to carry on the job because we haven't had  
4 the expertise, and let's face it, except for my  
5 co-counsel who had a background years ago in sciences  
6 who has some greater knowledge, I've got to admit my  
7 -- mine is a liberal arts education, so I need the  
8 assistance of experts. Thank you.

9 MR. LEVITT: Mr. Waddell.

10 MR. Waddell: Again, a year from now I  
11 would like to see in place very much improved adverse  
12 event reporting. I think that's very important. And  
13 if I had my druthers, I would like to see the Internet  
14 advertising of dietary supplements addressed promptly.

15 MR. LEVITT: Thank you. Well, listen. Let  
16 me thank both of you very much for coming.

17 What I think we'll do, since we're a little  
18 bit ahead of schedule, I mean, everybody has been very  
19 restful in your chairs, but I know you're a little  
20 restless underneath. We'll take advantage of the time  
21 and we'll take about a 10 minute break. If my watch  
22 is correctly on Pacific time, I would like to re-begin  
23 at 10 minutes to 11:00, which is about 10 minutes from  
24 now.

25 (Recess.)

1 MR. LEVITT: If we could ask our third  
2 panel to please join us on the stage here.  
3 Dr. Hillary Perr; Mr. Lawrence Sullivan; Mr. Michael  
4 Langan; Dr. Norman Farnsworth and Mr. Jerry Oliveras.

5 As we can tell by visual examination that  
6 Hillary Perr has not yet arrived. And we will try to  
7 fit her in later if she is able to get here. We will  
8 proceed. Again, I will presume that you were here  
9 this morning, but I will repeat very simply. You have  
10 five minutes. We have a timer right in the front row  
11 who will give you a one-minute warning, and then a  
12 final timer is sitting right here in front of you.

13 Hold up those signs so they can see what it  
14 looks like from up here. And then at the end we will  
15 go through a question and answer session as you saw.  
16 I'd like to just go through in the order that we have  
17 the names on the sheet. We will start with  
18 Dr. Lawrence Sullivan. Thank you.

19 DR. SULLIVAN: My name is Dr. Larry  
20 Sullivan, and I'm here today on behalf of the American  
21 Society of Anesthesiologists, a scientific and  
22 educational organization that represents more than  
23 35,000 physicians across the United States, and which  
24 is dedicated to patient safety and quality medical  
25 care. My purpose is to urge the FDA to take immediate

1 and appropriate action that will provide safer and  
2 more predictable herbal medications to the public, and  
3 hopefully remove much of the mystery associated with  
4 these potent products.

5           As a physician who has practiced  
6 anesthesiology for nearly 25 years, I will make no  
7 claim to being an authority on herbal remedies. It is  
8 well-known, however, that many of the medications  
9 commonly used by physicians, such as cardiac drugs,  
10 analgesics and antibiotics have their origins in  
11 botanicals, molds or other natural substances. As the  
12 science and the practice of medicine have grown, the  
13 controlled study of thousands of useful medications  
14 over the past century has helped to define the safety,  
15 usefulness and appropriate indications for these  
16 drugs, the result of which has been the successful and  
17 safe pharmacologic treatment of many diseases. Within  
18 this framework, the FDA has effectively established  
19 standards for quality and safety for such medications.

20           Unfortunately, the expectations in use of  
21 herbal medications is unclear. I am aware that the  
22 availability and the use of unregulated herbal  
23 preparations have increased dramatically over the last  
24 few years. Physicians, who once learned in medical  
25 school about digitalis, morphine, penicillin, and

1 epinephrine, now are faced with the likes of ginseng,  
2 ephedra, ginkgo and St. John's Wort. As an  
3 anesthesiologist, I care for patients before, during  
4 and after surgery. No surgery should ever proceed  
5 until the anesthesiologist determines that the patient  
6 is well enough to survive all the risks associated  
7 with the anesthesia and the procedure, but  
8 anesthesiologists are troubled by the fact that as  
9 many as 70% of the patients do not tell their doctors  
10 they are taking herbal medications because they  
11 mistakenly view these products as completely safe.  
12 Because many of these products can have a profound  
13 effect on a patient's physiology, problems such as  
14 unstable blood pressure, cardiac arrhythmias,  
15 prolonged anesthesia, and even disrupted clotting  
16 function can occur. This adversely impacts the  
17 well-being and safety of a patient in a surgical  
18 setting.

19           Although many herbal products are  
20 innocuous, some are not. There have been anecdotal  
21 reports by members of the American Society of  
22 Anesthesiologists that suggest that, in patients  
23 taking various herbal medications untoward and  
24 unexpected reactions to anesthetics may occur. For  
25 instance, the presence of Ephedra, used in many

1 dietary preparations, either alone or mixed with other  
2 ingredients may contribute to unexpected arrhythmias  
3 or hypertension under anesthesia. The use of St.  
4 John's Wort, sometimes recommended for depression or  
5 anxiety, may prolong anesthesia or negatively interact  
6 with other antidepressants such as monamine oxidase  
7 inhibitors, thus precipitating erratic blood pressure  
8 changes. Patients consuming ginkgo biloba may be  
9 subject to bleeding problems, due to platelet  
10 inhibition. Likewise, the popular preparation for  
11 migraine prophylaxis, called Feverfew can also  
12 interfere with proper clotting function.

13           The dilemma that anesthesiologists face is  
14 not only that patients are taking pharmacologically  
15 active herbal preparations that their physicians may  
16 be unaware of, but little is known about the actual  
17 potency and preparation of these substances. In  
18 addition, the lack of valid scientific information on  
19 the interactions of these substances with many  
20 prescription type drugs also poses a potential threat  
21 to patients receiving an anesthetic.

22           The ASA strongly urges the FDA to establish  
23 a database or other reporting system where data on  
24 adverse events can be analyzed, with a particular  
25 focus on adverse reactions with anesthetics or in a

1 surgical setting. Additionally, the FDA should be  
2 charged with establishing minimum standards of  
3 production, quality, safety, potency and labeling. It  
4 should likewise be the responsibility of the  
5 manufacturers to ensure the safety and efficacy of  
6 these herbal remedies by complying with such  
7 standards. Only then can meaningful research on drug  
8 interactions be achieved. Finally, it is essential  
9 that physicians become more aware of the potential  
10 hazards of herbal or "natural" remedies, especially  
11 when used concurrently with prescription medications  
12 or with anesthetics. It is equally important that  
13 patients be educated as to these potential hazards and  
14 especially be aware of the need to inform their  
15 physicians of their use.

16 MR. LEVITT: Next, Mr. Langan.

17 MR. LANGAN: Good morning to everyone. My  
18 name is Michael Langan. I serve as the health policy  
19 advisor to the National Organization for Rare  
20 Disorders, known by many simply as "NORD." First I'd  
21 like to thank you for allowing us this opportunity to  
22 assist the FDA in developing an overall strategy for  
23 achieving effective regulation of dietary supplements  
24 under the Dietary Supplement Health and Education Act  
25 of 1994. NORD is the consumer federation of more than

1 140 volunteer health agencies and thousands of  
2 individuals dedicated to the identification, treatment  
3 and the cure of rare, "orphan diseases."

4 We are the coalition that worked for the  
5 passage of the Orphan Drug Act of 1993. On behalf of  
6 over 20 million Americans suffering from more than the  
7 6,000 rare diseases, we continue to advocate for and  
8 monitor the development of treatments that would not  
9 be developed without the incentives of this landmark  
10 legislation.

11 Many Americans afflicted with serious and  
12 life-threatening rare disorders have valid medical  
13 need for products that are not available for sale as  
14 pharmaceuticals, but are only available as nutritional  
15 supplements. Because nutritional supplements are  
16 unregulated, we are very concerned about the lack of  
17 quality of the products and the absence of uniform  
18 standards promising that every pill or tablet contains  
19 the exact amount of active ingredients specified on  
20 the label.

21 100 years ago patent medicines sold in the  
22 United States claimed to cure every malady known to  
23 man from arthritis to cancer, syphilis, liver and  
24 kidney diseases, tuberculosis, et cetera. It was only  
25 after several public health crises and needless deaths

1 from unregulated medicine that the U.S. government  
2 required proof of safety before medications could be  
3 marketed.

4           During the 1960's, the law was changed to  
5 also require proof of efficacy. Today, as the century  
6 comes to a close, this nation has reverted 100 years  
7 to an era of unregulated medicines that are advertised  
8 as effective against health problems without any  
9 scientific proof and without any assurance of safety.

10           As a consequence of DSHEA, consumers have  
11 become convinced that "natural" dietary supplements  
12 are safe. And, the FDA is taking action only after  
13 the public health consequences of unregulated products  
14 maim or kill people who were given no warning about  
15 unsafe and dangerous nutritional substances.

16           The FDA has not moved fast enough to remove  
17 dangerous nutritional supplements from the market, and  
18 supplement manufacturers do not hesitate to market  
19 problems with known public health risks. Even after  
20 the Agency calls for withdrawal of unsafe supplements,  
21 retail stores continue to sell them. We urge the FDA  
22 to increase enforcement actions to prevent further  
23 public health tragedies and to require manufacturers  
24 to test these products before they are sold to an  
25 unwitting public.

1           In addition to assuring consumers access to  
2 safe dietary supplements that are truthfully labeled,  
3 the FDA should assure that the products are  
4 bioequivalent, meet uniform dissolution standards and  
5 are labeled for contraindication, side effects, et  
6 cetera.

7           The FDA should require manufacturers  
8 conformance to Good Manufacturing Practices, and  
9 assure that the ingredient labeling on the bottle  
10 indicates the exact content of each tablet or capsule.  
11 100 milligrams of Vitamin C should contain 100  
12 milligrams of Vitamin C, no matter which brand a  
13 consumer buys.

14           There is no other group of consumer  
15 products that is allowed to be sold in the U.S.  
16 unregulated. Many tests have shown that supplements  
17 often do not contain the exact ingredients claimed on  
18 the label, some supplements are sub-potent, some are  
19 super-potent, and some contain no active ingredients  
20 at all. Even pills within the same bottle can vary as  
21 to contents. This is a buyer-beware market because of  
22 the absence of government regulation.

23           FDA's inability to test the content of  
24 supplements has put the public at the mercy of  
25 dishonest vendors. There are people with rare

1 diseases who have valid medical need for supplements,  
2 but they cannot rely on the quality of these products  
3 without government regulation.

4           We suggest that nutritional supplement  
5 companies should conform to the same quality  
6 regulations as generic drugs and over-the-counter  
7 pharmaceuticals. They should be required to submit  
8 proof of bioequivalent and dissolution testing.  
9 bottles of supplements should be required to post an  
10 expiration date and side test warnings meeting the  
11 same standards as over-the-counter drugs.

12           Many consumers are not aware that the  
13 supplements may have side effects, that they should  
14 not be taken with other drugs or foods, and as a  
15 consequence there have been many critical and even  
16 life-threatening events arising from the use of some  
17 of these products because inadequate warnings were not  
18 provided to consumers.

19           When the FDA issues press releases to  
20 inform the public about the side effects or supplement  
21 interactions, the Agency's education efforts are  
22 totally inadequate. Warnings should be posted on  
23 product containers, not a 10-second announcement on  
24 the nightly news.

25           We advise the FDA, because its primary

1 mission should be a consumer protection agency, that  
2 safety should be the highest priority in the dietary  
3 supplement strategy. For example, despite documented  
4 reports that the supplement 5HTP contained the same  
5 flawed tryptophan that killed or maimed several  
6 thousand Americans a few years ago, 5HTP continues to  
7 be sold over-the-counter as a nutritional supplement.

8           The FDA "asks" for "voluntary" recalls of  
9 dangerous products whereas it should require recalls  
10 of products of evidence of imminent public health  
11 hazards. Such products should be ordered off the  
12 market without delay.

13           The FDA should aggressively express its  
14 need to Congress for statutory authority to withdraw  
15 supplements before people are harmed and not after.  
16 Similarly, a "voluntary" recall of GHB and related  
17 products represents insufficient protection of public  
18 health by the Agency.

19           If the government can recall thousands of  
20 cars because of a defect, it is incredulous that the  
21 FDA cannot recall nutritional supplements that have  
22 caused critical health problems and death.

23           There are many other safety, labeling, and  
24 marketplace issues that the FDA should address. There  
25 are too many supplements labeled USP, which is

1 supposed to indicate that they conform to the US  
2 Pharmacopeia standards, but they do not in fact live  
3 up to those standards. Apparently, USP is aware of  
4 the violations, but it is not a government agency and  
5 has no enforcement authority. FDA does have  
6 enforcement authority against untruthful labeling, and  
7 it should do something to stop this dishonest practice  
8 by violative supplement companies.

9           Similarly, the FDA should issue the GMP  
10 regulations for nutritional supplements; require  
11 expiration dates on all bottles; require  
12 manufacturer's proof of testing for dissolution and  
13 bioequivalence; list warnings and side effects clearly  
14 on all labels; and require a stronger statement on  
15 labels that each product has not been tested for  
16 safety and effectiveness and has not been approved by  
17 the FDA.

18           The public is under the impression that the  
19 FDA will not allow any unsafe or ineffective product  
20 to be sold; therefore they believed that nutritional  
21 supplements are approved by the Agency for sale in the  
22 United States.

23           Consumers should know by reading the labels  
24 on nutritional supplements they are taking personal  
25 responsibility for ingesting untested or unproven

1 products that may or may not have health implications,  
2 both good or bad. They should be able to read  
3 understandable warnings about known side effects, just  
4 like they read on an aspirin bottle. They should  
5 learn via the label whether to take the supplement  
6 with or without food and which medications they should  
7 avoid.

8           Finally, the FDA should vigorously monitor  
9 and regulate the outrageous print and television  
10 advertisements that are misleading and untruthful. By  
11 allowing these ads to continue, the FDA has allowed  
12 the snake oil salesman of the beginning of this  
13 century to roll back the consumer protection clock by  
14 100 years.

15           Again, thank you for the opportunity to  
16 assist the FDA in developing an overall strategy for  
17 achieving effective regulation of dietary supplements  
18 under the Dietary Supplement Health and Education Act  
19 of 1994.

20           MR. LEVITT: Thank you very much. Next  
21 speaker. Dr. Norman Farnsworth.

22           DR. FARNSWORTH: Good morning. I'm  
23 Dr. Norman Farnsworth. I'm a research professor at  
24 University of Illinois, College of Pharmacy. I also  
25 serve as a director of program collaborative research

1 in the pharmaceutical sciences, which is a large  
2 conglomeration devoted to research on plants  
3 primarily.

4 I'm also director of the World Health  
5 Organization collaborating for the University, and  
6 most recently I served as a member of the Commission  
7 on Dietary Supplements Labels, an advisory committee  
8 in the Center for Food Safety of post marketing  
9 surveillance.

10 Being a professor, I can't restrict myself  
11 to five minutes, so I'll give you four or five  
12 bullets. I think the substantiation will be in my  
13 written comments that I'll submit.

14 The first thing I think is most important  
15 is the substantiation file which FDA has accepted the  
16 recommendation from the commission should be -- should  
17 absolutely be put into regulations, and this should be  
18 open to FDA in instances where FDA feels that there is  
19 a violation of labeling or safety.

20 In addition, there should be a  
21 standardization of evidence in that file for every  
22 product and every lot number that the company  
23 manufactures. I think that will go a long way toward  
24 assuring safety for consumers because you can monitor  
25 from batch to batch what is going on.

1                   There are a lot of myths about what kind of  
2 standardization and what type, but the state of the  
3 art of science is such that this is not a problem  
4 today. I have always said that publicly and in  
5 printing if an herbal product contains in a bottle  
6 what is on the label, it legally conforms to DSHEA,  
7 and if taken as directed on the label and if the  
8 proper warnings are on the label which are permissible  
9 under DSHEA, that herbal botanicals are the most safe  
10 type of products outside of standard foods that you  
11 can put in your stomach.

12                   I think the FDA should immediately open the  
13 OTC for use of botanical supplements because probably  
14 80% of the 25 biggest sellers would go to an OTC  
15 review without too much problem.

16                   The guidelines should not be changed from  
17 the first OTC review, otherwise I think you ought to  
18 go back and review all of the OTC approved products  
19 because they were approved under a different system.  
20 As long as it's a level playing field, I don't think  
21 it's any problem.

22                   I think you ought to leave the definition  
23 of "disease" alone. I don't think if I'm constipated  
24 that that's a disease. I don't think if I drink too  
25 much tonight and have a headache this next morning

1 that that's a disease. I don't think if I have  
2 hiccoughs that that's a disease. I think it's not an  
3 easy thing. I think some better language can be put  
4 forward too.

5 As far as research is concerned, there's a  
6 lot going on. Those new centers for complimentary  
7 medicine has a 50 million dollar budget, now they're  
8 awarding grants. If the grants are legitimate, they  
9 will be funded. If they're not, they shouldn't be  
10 funded.

11 In addition, there is now an RFA out for  
12 botanical supplement research. There should be more  
13 of those. There are only nine proposals that went in,  
14 and they're only going to fund one, and these include  
15 clinical trials, safety, standardization, bioassay  
16 development.

17 I think this is a very good thing, and  
18 really Congress should have allotted more money.  
19 Maybe they're waiting to see what happened with the  
20 first one. I think you can put out a center for  
21 quality control, for example.

22 I know FDA has very limited resources in  
23 that area and is usually restricted to cases where  
24 people die or the liver stops functioning and so  
25 forth. And, everybody is talking about a lack of

1 information. You should know we have a database at  
2 University of Illinois. All over the world we track  
3 adverse reactions of herbals, if they are published.  
4 We also track all the clinical trials and so forth.

5 The World Health Organization just last  
6 month came out with the first 28 monographs on major  
7 medicinal plants, and they are completely referenced,  
8 and they've been approved by drug regulatory agencies  
9 around the world, and I will include a copy of this  
10 document when I submit my written comments. Thank you  
11 very much.

12 MR. LEVITT: Let me take a momentary pause  
13 and welcome Dr. Hillary Perr to the stage. She  
14 actually -- if you look at the written agenda --  
15 didn't get here late, we started early -- in a rare  
16 moment of activity. We'll try not to make it a  
17 precedent, don't worry. I do welcome you.

18 What we'll do is we'll finish first with  
19 Mr. Oliveras and come back to you, if that's all  
20 right. Our fourth speaker will be Mr. Jerry Oliveras.  
21 Please proceed.

22 MR. OLIVERAS: Good morning. My name is  
23 Jerry Oliveras. I'm laboratory director of Anresco.  
24 We serve the food supplement, nutritional supplement,  
25 drug and device industry.

1                   I'm taken this morning by one thing, and  
2 that is a contrast that I have heard. This thought  
3 just came into my head, sitting here right now. It's  
4 very popular to talk about something called a  
5 precautionary principle, and this precautionary  
6 principle mostly is being touted by environmentalists  
7 to block chemicals from entering the environment.

8                   And as a chemist I'm kind of at odds with  
9 that idea because everything is a chemical. I listen  
10 to the precautionary principle as it's applied to  
11 Phenol-A, to dioxin, to the next new chemical release  
12 or to the old chemical release we had last week. And  
13 then I look at what we're doing with nutritional  
14 supplements and I see this group of people who are  
15 experts in their own field having big questions about  
16 what we're doing. The information. Where's the  
17 research? What are we ingesting? Long term effects,  
18 short term effects. Do we have toxicity? Do we have  
19 any real problems? I think maybe we should apply the  
20 precautionary principle here too. That's just sort of  
21 an aside.

22                   If there was one thing the FDA could do, I  
23 think that it would really help the industry if we  
24 could give some guidance about good manufacturing  
25 practice. It doesn't have to be a hard and fast

1 regulation the way we do it in the drug and device  
2 industry. It definitely needs to be some detailed  
3 guidelines that the industry can follow because there  
4 is this huge question mark, especially among small and  
5 intermediate-sized suppliers and retailers and coat  
6 packers, and you name it, that don't have the  
7 slightest idea what they should be doing. And they  
8 don't seem to want to spend the money or have the  
9 money to spend on hiring consultants to tell them what  
10 to do.

11           The next thing that I would like to talk  
12 about is about trace contaminants. Everyone has  
13 focused on major components and drug interactions. I  
14 would like to focus on trace contaminants and problems  
15 with trace contaminants, whether they're heavy metal  
16 pesticides or other heavy industrial contaminants  
17 containing heavy metals.

18           Botanicals coming out of the People's  
19 Republic of China have everything from no real  
20 detectable levels of heavy metal to just about every  
21 heavy metal you want to think about. We have products  
22 coming into this country that are predominantly  
23 cinnabar. Not just cinnabar, which is a mercury salt,  
24 but also cinnabar heavily contaminated with soluble  
25 lead salt. They are sold over the counter. Go down

1 to Chinatown, get some little red pills and take them  
2 and go about your happy way while you're slowly  
3 poisoning yourself to death.

4           We need to address these kinds of problems.  
5 They're on the market, available, and out there. Even  
6 among the manufacturers getting results back on trace  
7 metals and trace contaminant testing, they have no  
8 idea what to do with those results. How much lead is  
9 too much lead? How much mercury is too much mercury?  
10 How much pesticide is too much pesticide?

11           The other issue is just sheer cost of  
12 testing and screening often forces small manufacturers  
13 and small importers to do commingling of products.

14           We sometimes get samples in our laboratory  
15 that are 53 different herbal products as a composite,  
16 and we're going to analyze those in one single test  
17 and say, yes, the heavy metals are too high, or no,  
18 there's no detectable pesticide. It's a farce. We  
19 know it's a farce. They know it's a farce, but  
20 because they don't want to spend the money, they're  
21 not going to test each of those ingredients  
22 separately. They're only going to test them as a  
23 single composite so they can get a report that says,  
24 no detected pesticide residues, must be organic, must  
25 be good for you.

1                   What we see from the private lab  
2 perspective is the money side of things, not the  
3 science side of things. We see companies who are  
4 looking at bottomline, wanting to make more money, who  
5 -- and this is -- anybody.

6                   There are the exceptions. There are also  
7 companies that are very concerned about what they're  
8 doing, but they are the exceptions. And the  
9 exceptions are the ones that we really ought to be  
10 focusing on and we need to weed out. Thank you.

11                   MR. LEVITT: Thank you very much.  
12 Dr. Perr, just before you get going, in the front row  
13 is a young man who will hold up a one-minute warning  
14 for you, and then a time is complete sign at the end  
15 of the five minutes. With that you're welcome to  
16 speak from there or go up to the podium.

17                   MS. PERR: Thank you very much. I'm  
18 Dr. Hillary Perr. I represent the 5500 members of the  
19 American Academy of Pediatrics in California, and we  
20 seek to educate the public, the food industry and  
21 government regulatory agencies regarding the special  
22 vulnerability of children to ingested substances, and  
23 this includes dietary supplements.

24                   As part of the faculty at the University of  
25 California in San Francisco, I see patients as a

1 pediatric gastroenterologist, hepatologist and  
2 nutritionist, and my laboratory research focuses on  
3 regulation of intestinal behaviors that are  
4 fundamental to normal growth, development, healing and  
5 cancer, and therefore it possesses some unique and  
6 relevant expertise as a scientist and a clinician.

7 I'm not a paid lobbyist, but like my many  
8 colleagues I'm motivated by the urgent need to protect  
9 children in the environment of rapidly available new  
10 products that have unknown ramifications.

11 Children are especially vulnerable to  
12 novel, impure or improperly processed dietary  
13 substances by virtue of an immature and evolving  
14 physiology that's quite different from adults.  
15 Children frequently differ in the absorption,  
16 breakdown, processing, elimination, tissue storage and  
17 distribution of ingested substances, whether you label  
18 them as dietary supplements or drugs. Further,  
19 immunologic protection is less developed, so allergic  
20 tendencies can be greater.

21 For instance, a breast fed baby exposed to  
22 dietary supplements inadvertently appearing in breast  
23 milk may manifest allergy, vomiting, hives, diarrhea,  
24 dehydration, breathing problems or death. Therefore,  
25 a dose or preparation of a dietary supplement that is

1 tolerated or even beneficial to an adult may in fact  
2 be toxic or lethal to a child.

3           And another difficulty that arises is the  
4 fact that children eat differently than adults, and  
5 their food choices may change the potency, the  
6 processing or side effects of the supplements.  
7 Therefore, for many dietary supplements the context of  
8 age, stage of development and eating habits is key to  
9 determining the potential harm, benefit or safety.

10           Because children also have different  
11 nutritional needs at different times of life, such as  
12 fetal development, infancy or puberty, inappropriate  
13 consumption of a dietary supplement replacing these  
14 needed nutrients has lasting consequences. Maternal  
15 consumption of such products may result in impaired  
16 fetal growth or birth defect.

17           A recent disturbing trend in clinical  
18 pediatric practice is the phenomenon of children from  
19 privileged families with stunted growth and delayed  
20 development. These children are essentially starving  
21 despite their parents deliberate efforts to offer only  
22 what they see as pristine and nutritionally superior  
23 foods. And how could this happen? What are they  
24 eating and why? Where are the families getting their  
25 information? And part of the answer can be found in

1 your neighborhood grocery store.

2           Because beyond the plethora of individual  
3 supplements is the questionable utility and safety of  
4 supplement enhanced foods, many of which are targeted  
5 to kids. There are corn chips with cava cava, a  
6 sedating substance that the National Nutritional Food  
7 Association warns against taking if they're under 18,  
8 pregnant or nursing, planning to drive or operate  
9 heavy machinery. Nowhere does this information appear  
10 on the label.

11           There are fruits juices with ginseng, diet  
12 teas with ephedra. Robert's American Gourmet markets  
13 a memory snack with ginkgo biloba, and another snack  
14 called Power Puffs. The package is emblazoned with  
15 the word "energy." Fortified junk foods are still  
16 junk. They cannot substitute for food.

17           Are these products safe and rational for  
18 children? How would we know? Many labels fail to  
19 document the dose, source, species, expiration date or  
20 form of the herb. Most packages do not provide 800  
21 numbers for reporting of adverse effects. But a clue  
22 that such substances should be taken in a specific  
23 manner comes from their use in the countries where  
24 they originate. In Germany St. John's Wort is  
25 manufactured as a standardized tablet as a treatment

1 of a depressive disorder, not as a soup for mass  
2 consumption.

3 In China, herbal products are procured  
4 under the supervision of practitioners experienced in  
5 the use, not as a crunchy snack. Does ginkgo biloba  
6 enhance memory? Yes, in individuals already suffering  
7 from memory impairment.

8 So, why are these products being marketed  
9 as snacks and gums? The short term consequences span  
10 allergic reactions, to drug interactions, to death.

11 After drinking liquid Echinacea one woman  
12 experienced burning of the mouth and throat,  
13 tightening of the chest, diarrhea and hives. Another  
14 individual almost died in an effort to wean off the  
15 antianxiety drug Zanax by taking cava cava.

16 The latest issue of the Berkeley Wellness  
17 Letter advises stopping herbal supplements such as St.  
18 John's Wort, ginkgo biloba and ginseng three weeks  
19 prior to surgical procedures to prevent untoward  
20 effects on heart renal blood pressure. Information  
21 absent from products labels.

22 Three children died taking an ephedra  
23 product, a substance advertised to increase energy or  
24 facilitate weight loss. Long term consequences are  
25 not even known, but rest assured that children are the

1 ones who are at risk to sustain repeated dosing  
2 exposure for the longest duration.

3           The American Academy of Pediatrics  
4 acknowledges that many supplements and herbs may be  
5 beneficial. We are advocating to ensure the safe,  
6 responsible and appropriate use in children.

7           To this end, labeling the name of the herb,  
8 dose, preparation, expiration, not for pregnant or  
9 lactating women or children under six, manufacturers  
10 to be listed, 800 numbers for reporting, keep dietary  
11 supplements separate from food. Assurance of purity,  
12 standardization of the product, warning of adverse  
13 drugs reactions. The label should state that doctors  
14 or pharmacists should know of supplement use.

15           We are looking forward to working more  
16 closely with the food industry and with the FDA for  
17 what I am assuming is the common desire to make  
18 available to the public things that are beneficial and  
19 to protect them from harm. Thanks.

20           MR. LEVITT: Thank you very much. We'll  
21 now go to a period of questions. Each of us will ask  
22 one question as we go down the row here, and I'll  
23 begin.

24           One of the speakers on this group, I  
25 believe it was Dr. Farnsworth, referenced botanicals

1 particularly, and your suggestion they ought to be  
2 handled under the OTC review. My question is more  
3 generally about botanicals, which is, should  
4 botanicals be handled -- should they be handled  
5 differently than other dietary supplements, other  
6 special concerns that we ought to have with respect to  
7 botanicals or special needs for special challenges  
8 that botanicals bring to the table?

9 DR. FARNSWORTH: Can you wiggle that down  
10 to a smaller question?

11 MR. LEVITT: If we were to focus on  
12 botanicals, what should we be looking at? I don't  
13 know if I widdled or enlarged. Probably not going to  
14 ask me again.

15 DR. FARNSWORTH: You opened the door. In  
16 the first place, let's face it. These are not dietary  
17 supplements, they're medicine, but under DSHEA -- and  
18 you're faced with the problem to regulate them as  
19 supplements.

20 As I indicated before, if you open up the  
21 OTC panel, 80% of your problems will go away, in my  
22 opinion. As supplements, the public is confused  
23 because part of DSHEA is to make truthful, not  
24 misleading scientifically valid information available.  
25 And as I indicated before, I don't think -- maybe I

1 didn't -- I think one of the statements that FDA will  
2 allow under the proposed rules was this is a dietary  
3 supplement for men over 50. Now, I don't think that  
4 in any sense of the phrase, that that's not  
5 misleading. So, I think that that kind of stuff has  
6 to be cleaned up. But, it really doesn't matter what  
7 you put on the label. You put nothing -- because the  
8 advertising machine in the U.S. has taken care of what  
9 everybody knows that these things are generally used  
10 for.

11 I think you have to stress more on adverse  
12 -- potential adverse effects and quality control and  
13 standardization.

14 MR. LEVITT: Thank you. Other reactions?  
15 Mr. Langan?

16 MR. LANGAN: I was going to add that I  
17 believe when you look at the general three categories  
18 of products under the heading of dietary supplements,  
19 it is botanicals or herbal products that I believe the  
20 FDA really needs to start focusing a greater deal of  
21 attention to.

22 Clearly vitamins, minerals, many of those  
23 products that have been around for quite some time,  
24 have been manufactured responsibly for quite some  
25 time, do not require regular attention right now when

1 you compare it to the need for botanicals and the  
2 widespread use of those products.

3 Others, I think, such as amino acids and  
4 the hormones I think it's recognized from many of the  
5 series of problems.

6 MR. LEVITT: Thank you. I'll pass the  
7 microphone down to Dr. Yetly.

8 DR. YETLY: Several of you on this panel,  
9 as well as on previous panels, have talked about the  
10 need for information that is readily available to  
11 health professionals or consumers on potential adverse  
12 effects, potential adverse interactions with other  
13 drugs and other substances, and have noted the need  
14 for some kind of a readily available usable database.

15 Dr. Farnsworth also mentioned that there  
16 are databases out there, and I believe there are --  
17 University of Illinois has one -- other academic  
18 centers have databases. USP has monographs. WHO has  
19 monographs, and the NIH and USDA have an online  
20 reference bibliography to a number of research papers.

21 Is the problem that these are not readily  
22 accessible, that people don't know about them, or is  
23 there a more proactive system that FDA or some other  
24 organization needs to be involved in to make this type  
25 of information more readily available and usable?

1 DR. FARNSWORTH: I think that as far as  
2 scientific information is concerned, there are  
3 adequate sources of information, if you want to work  
4 at it. As far as the public is concerned, there is  
5 too much information, and it's bad information.

6 I don't like to mention specific things,  
7 but I think if the public had access to Professor  
8 Tyler's book, he's very conservative, and it's very  
9 accurate and a reasonable thing. The commission needs  
10 monographs, that's kind of expensive, but I'll tell  
11 you how the German FDA makes claims on these things  
12 unfortunately it's not a reference, but it gives you a  
13 good across the board.

14 I think there's plenty of information for  
15 the consumer. A lot of it is mostly bad information  
16 for the scientist. The science you have to interpret  
17 how good it is yourself.

18 MS. PERR: I would like to add that I think  
19 from my standpoint the information is incomplete in  
20 that the German E Monograph is one of the best  
21 compendiums of about 250 or 300 substances based on  
22 anecdotal use and experience, and as he said it's not  
23 referenced. So, it is a very great place on which to  
24 build. It depends what your questions are.

25 My focus is that of exposure, again, in

1 women who are pregnant, lactating women, children of  
2 different ages, and how that might affect them in the  
3 acute, and then in the long-term, because if as we  
4 change the nature of our food, if over time people who  
5 are developing continued exposure to things, a lot of  
6 these substances were designed specifically to treat  
7 something for specific durations of time, they were  
8 not lifelong ingestions. And, we are now having  
9 different diseases taking different products that we  
10 can't just base it on an anecdotal experience, not  
11 compiled in Germany. I think that information is  
12 useful, but it isn't complete. I'm uncomfortable  
13 about a lot of these products in kids.

14 DR. SULLIVAN: I think there is a problem  
15 for physicians, and I will speak as an  
16 anesthesiologist, there's a lack of information in  
17 regards to how many of the herbal medications behave.

18 Five or 10 years ago this was not an issue,  
19 but now we have this plethora of all kinds of  
20 substances out there in the grocery store and  
21 nutrition markets and the like that we find our  
22 patients are taking, and we find out that they're  
23 taking in various ways, either after the fact or  
24 hopefully before they undergo procedures. For the  
25 anesthesiologist the problem is, what does this mean,

1 whether they're taking particular medications, whether  
2 it be ginseng, or ginkgo, or St. John's Wort in the  
3 presence of other medications that they may be on long  
4 term. And what does that mean in relationship to the  
5 medications that we'll provide them of a hypnotic or  
6 analgesic sort?

7           We have -- within the American Society of  
8 Anesthesiologists we have tried to promulgate this  
9 type of information in a number of ways. We are using  
10 our web site to provide links to various organizations  
11 such as the U.S. Pharmacopeia so that our members can  
12 have that resource, but they have to know to go there  
13 to find it. They have to know that this is a problem  
14 in the first place.

15           The other thing is that -- and I was  
16 talking to our legal counsel for the California  
17 Society of Anesthesiologists last night. He's  
18 attending a seminar of malpractice insurance  
19 companies. And they are raising the issues as to  
20 proper disclosure and trying to find a way to obtain  
21 information from patients.

22           And what I am really trying to get to so  
23 that we basically -- we have a patient come to  
24 surgery, we basically try to get them to fill out a  
25 lengthy preoperative assessment form or a

1 questionnaire about when they had surgery before, what  
2 kind of medication they're on, what kind of diseases  
3 they have had and so on and so forth. And we of  
4 course always ask what medications you're on, but  
5 we've never specifically asked do you take any herbal  
6 or natural type of medications?

7           Now, this is going to become a standard.  
8 We are going to promote this as a necessary element of  
9 a questionnaire, so we can kind of cover that. And,  
10 it has not been done well in the past. As I say, in  
11 the past the widespread use of this was not nearly  
12 what it is that we're experiencing right now.

13           MS. BOWEN: Dr. Farnsworth, I have a  
14 question for you. I actually want a clarification of  
15 a statement that you made. You recommended that we  
16 leave the definition of "disease" alone, but you also  
17 said better language can be put forth regarding  
18 "function." Can you clarify that?

19           DR. FARNSWORTH: I think you have to create  
20 a nomenclature of situations where you have -- when  
21 somebody has a short-term condition that requires a  
22 brief period of dosing of something, I don't know how  
23 you would word that to make it legal and everything  
24 else, but I think it's possible. Like a minor  
25 headache. The same way for aspirin.

1           You have aspirin for headaches, or if you  
2 have upset stomach, it isn't an upset stomach all of  
3 your life, if it is, you should go elsewhere to find  
4 your information. But I think it would take more than  
5 one sentence, one bullet to come up with that, but  
6 I'll think about it. Maybe I'll put it in my  
7 document.

8           MS. BOWEN: That would be great. I, as you  
9 know, there's difficulty here with boundaries. Many  
10 OTC drug products have short term use. That's one of  
11 the criteria that we look at, how long is someone  
12 going to be using the product, as well as how safe is  
13 it. That would be helpful to us.

14           MR. DORSEY. I have a question for each of  
15 the panelists about safety -- not safety so much  
16 related to ingredients or things that shouldn't be  
17 there, contaminants, but the safety of the -- what  
18 we'll call the active ingredients in dietary  
19 supplements or active ingredients.

20           And that is that there's been a lot of talk  
21 about -- a lot of the commentators up on this panel  
22 and previously have mentioned the use of warning  
23 statements. And I guess the question is, when is a  
24 warning statement appropriate versus taking action to  
25 remove the product from the market? And what kind of

1 warnings do you think would be appropriate to inform  
2 consumers of risks and others who may need to evaluate  
3 things as opposed to taking action to say that the  
4 product is just inappropriate for use in a dietary  
5 supplement, which is after all a food? Thanks.

6 DR. FARNSWORTH: In the WHO monographs for  
7 every herbal product there is a caution that it should  
8 not be used by pregnant or nursing women. I think  
9 that should go on the label for anything, aspirin or  
10 anything else. I don't think pregnant women should  
11 take anything unless a physician tells them to.

12 There's also a precaution, it shouldn't be  
13 used by children under the age of 12. So, I think  
14 those two should be done. And then if there is a  
15 well-established mechanism that's supported by some  
16 clinical -- published clinical indices, for example,  
17 massive bleeding or something, by something that's a  
18 coagulation inhibitor, maybe that should go. But the  
19 downside of that is, how many cases of heavy garlic  
20 eaters can be correlated with bleeding when doing  
21 surgery or at any other time? Might be an interesting  
22 study for some of you to do. We have mechanisms that  
23 are searching for case reports in the medical  
24 literature. That's really a problem.

25 What about allergies? There's a potential

1 that anybody can be allergic to anything. Medical  
2 letters consider chamomile a dangerous herb served in  
3 the finest restaurants, first class airlines. You  
4 travel first class? So...something....

5 MR. LEVITT: Something we aspire to.

6 DR. FARNSWORTH: So, I think -- somebody  
7 could sit down in a small conference with three or  
8 four people and come up with a list of things that are  
9 rational and reasonable to put on labels, but I mean,  
10 a label is only so big, and you have to be very  
11 careful. Labels now, I can't read them. I need a  
12 magnifying glass on a lot of them.

13 But anyway, I think it's a doable project  
14 for a small group of people. That is not to say the  
15 top 30 herbs or something like that. The major  
16 problem, the liver, blood thinners, MAO inhibition.  
17 Outside of that, the list --

18 MS. PERR: I agree with you. Pregnant or  
19 lactating women, no; children, no; unless it's proven.  
20 I can't see any need at all for any of these products  
21 to be in gum or crunchy snacks.

22 I wouldn't eat a soup with lithium or  
23 el-tryptophan in it. Why would I eat a soup with St.  
24 John's Wort? He's going out to lunch with me after.  
25 But, I mean, there's some things that are just common

1 sense. There are some places where these things just  
2 don't belong.

3 I actually went to a grocery store, and I  
4 tell you, packaging makes the difference The memory  
5 snack -- it doesn't say this enhances your memory, but  
6 it says memory all over the package. And it pretty  
7 clearly targets to a population that you shouldn't be  
8 taking it at all. Copious amounts are ingested. That  
9 wouldn't be an intelligent way to eat anything,  
10 although I can't control that myself.

11 So, I think the nature of the product  
12 itself, let's keep it separate because it's a good  
13 principle for right now.

14 There are foods that we have enriched with  
15 calcium and with folate, but we have substantial  
16 research to show the benefit of that in a specific  
17 form, in a specific delivery system, and that makes  
18 sense to me. I just don't see that body of work here.

19 The other problem that's unique to those  
20 products is I think people are really very overwhelmed  
21 right now with the changes in our environment, our  
22 technology. We've got transplants, we're moving parts  
23 around, we're growing them in the lab, we can make  
24 people and sheep somewhere else. So, they're a little  
25 bit afraid of the medical community. Insurance is

1 very frustrating. And, if you can have a crunchy  
2 snack that will make you think, that is very  
3 appealing. That stuff can go.

4 I think doctors and pharmacists really need  
5 to know what the patient is taking. People need to  
6 understand that these are ingested things.

7 We actually make people keep food diaries  
8 for us. The brands, how much, how it's prepared. We  
9 even treat food as though it's a potential problem.

10 DR. SULLIVAN: Grab this for a second. I  
11 too went to the grocery store.

12 MS. PERR: You want to go to lunch with us?

13 DR. SULLIVAN: I went to the grocery store  
14 and I grabbed some of these things. It will promote  
15 restful sleep. Supports normal urine flow, provides  
16 healthy mood, promotes sleep. Promotes well-being in  
17 cold and flu season. Helps maintain normal blood  
18 flow. If I bought all this stuff, my wife would be  
19 really happy with me, because she wouldn't complain  
20 about my health and so forth, and I feel like I would  
21 be a great consumer. But, in response to Mr. Dorsey's  
22 question, I really want to say that with regard to  
23 warning labels I think they're very small things that  
24 the DA can provide. And when to do it, I think when  
25 the providers of these things cannot attest to what

1 they really do, and what their potency is --

2 MS. PERR: And what they are.

3 DR. SULLIVAN: And when they are purported  
4 to do certain things that they cannot validate, and in  
5 particular when we don't know the interaction with  
6 various drugs, I think there needs to be something on  
7 there that says to the consumer, this is something you  
8 should take only with the advice of your health  
9 advisor. I think there is something to that.

10 Now, we don't want to -- I know there's a  
11 lot of consumers out there that don't want to mess  
12 with their health advisor, or physician, or whatever,  
13 but I really do think there has to be a warning about  
14 the potential adverse effects, particularly as they  
15 involve the interaction with other medications that  
16 they're taking. And I don't see that on there right  
17 now. I see disclaimers about the FDA has not  
18 evaluated the label of this package. That's about the  
19 only thing they will say.

20 MS. PERR: But that doesn't mean anything  
21 to a consumer of average daily language.

22 MR. LANGAN: I would like to add that in  
23 order to even begin to educate the consumer in the  
24 medical community, good or bad about any products,  
25 when we're talking about an active ingredient, one of

1 the key issues we must address is identifying what the  
2 active or principle ingredient is, or are, in many of  
3 these products, because I believe that there are  
4 several key products that we don't have a consensus on  
5 what the single key active ingredient is.

6 But, in addition, when we're warning the  
7 public about a potential risk, or anything else about  
8 a product, there's a key problem with information  
9 dissemination on the part of the Agency.  
10 Unfortunately, the industry has been very good about  
11 information dissemination of a very selective nature,  
12 and it would be -- I think it would be a good exercise  
13 at this -- maybe not this meeting, but future  
14 Stakeholder's meetings where we can really look at how  
15 all the parties can try to come together, pool  
16 resources to work together and address what those  
17 risks or harms may or may not be. But, it's certainly  
18 the first line of defense for any individual is going  
19 to be the label.

20 MR. OLIVERAS: I think we have to keep in  
21 mind that consumers are inundated with warnings all  
22 the time, everywhere we go about everything they do.  
23 You walk into a supermarket in California, you see the  
24 Prop 65 warning. You read the newspaper, you see the  
25 Prop 65 warning. You do anything and there's warning