OPIGINAL

Τ.	(CERTIFIED TAPE TRANSCRIPT)	
2		
3		
4	MACRO INTERNATIONAL, INC.	
5		
6	:	:
7	:	;
8	: FOCUS GROUP ON	:
9	: METHYL MERCURY	:
10	: (PREGNANT WOMEN)	:
11	: {FOOD AND DRUG ADMINISTRATION}	:
1.2	:	:
13	: 	:
14		
1.5	TUESDAY,	
16	OCTOBER 17, 2000	
17	6:00 P.M.	
18		
19	Moderator: Lynn Halverson	
2 0		
21	Denver, Colorado	
2 2		

1	P-R-O-C-E-E-D-I-N-G-S
2	MS. HALVERSON: I'd like to give you a
3	couple of ground rules. I am an independent
4	moderator. That means that I'm not an expert in
5	the topic we're talking about.
6	What I do is go around the country
7	talking to consumers about different kinds of
8	topics. What that means for you is that I have
9	no real vested interested in you answering my
10	questions one way or the other tonight, so just
11	feel free to be open and honest with me about how
12	you feel about what we're talking about.
13	Everyone's opinions are important.
14	We've got a nice, diverse group of people around
15	the table, and I'd like to hear from every single
16	one of you.
17	Sometimes people tend to dominate
18	conversations. If so, I might say, "Why don't
19	you hold back for a minute, and let's hear from
20	somebody else that we haven't heard from yet."

Word-for-Word Reporters & Transcribers *** Nationwide/24-Hours (301) 431-3900 & (202) 775-1842 & (888) 752-3376

or wrong answers. You're probably going to have

21

22

We might do that. There are no right

```
some different opinions from the people around
```

- 2 the table, and that's fine.
- 3 We don't have to come to any kind of
- 4 consensus here, so feel free to speak your mind.
- 5 I wanted to point out, because I'm doing this as
- 6 part of a research project, and I'm doing it all
- over the place, it's really important that I have
- 8 information, but I don't want to take notes while
- 9 we're sitting here talking.
- 10 I've asked them to make a tape. The
- 11 tape recorder is back there, but the microphone
- is right here in the ceiling, so if you would do
- a favor and speak up about as loudly as I am now
- when we're talking, that would be really helpful.
- Also, because of the taping, if we can
- 16 avoid side conversations, that would be helpful,
- 17 too, because if there are side conversations
- 18 going on, the tape just hears a blur of things.
- 19 For the same reason, if we can avoid
- 20 several people trying to talk at one time. I
- 21 might have to act as a traffic cop if we have two
- or three people trying to provide comments, but

- 1 please bear with me on that.
- The other thing I wanted to mention is
- 3 that there are some other people really
- 4 interested in what you have to say, and they're
- 5 going around the country with me listening to
- different focus groups, and they're in the room
- 7 back there, so you can wave to them if you want.
- 8 This has really been a helpful process
- 9 for us here. We've used evidence from the focus
- 10 groups to try and narrow down the information
- 11 that we're presenting to you, and all that, so
- we'll probably use what you folks are saying to
- help us in talking with other groups as well.
- 14 What we are talking about today is how
- 15 consumers should be informed about health risks.
- 16. Before we get started in the discussion, I'd like
- to find out about who we have around the table.
- 18 Maybe we can start with Ingrid and go around the
- 19 table counter-clockwise. If you could tell me
- 20 just your first name, and tell us all how long
- 21 you've been in the Denver area.
- A PARTICIPANT: Okay. My name is

- 1 Ingrid, and I'm a native to Colorado, the Denver
- 2 area.
- MS. HALVERSON: Okay.
- A PARTICIPANT: And I plan to be for a
- 5 long time.
- MS. HALVERSON: Okay, great.
- 7 A PARTICIPANT: My name's Harry, and
- 8 I've lived here for 25 years.
- 9 MS. HALVERSON: Okay. Thank you.
- 10 A PARTICIPANT: I'm Kathy, and I'm a
- 11 native also.
- MS. HALVERSON: Okay.
- 13 A PARTICIPANT: I'm from the metro
- 14 Denver area.
- MS. HALVERSON: All right.
- A PARTICIPANT: My name's Julia, and
- 17 I'm also a native.
- 18 MS. HALVERSON: My goodness. Okay.
- 19 A PARTICIPANT: My name's Carol, and
- 20 I'm not a native. I've been here 22 years.
- 21 MS. HALVERSON: Okay. Where did you
- 22 come from, Carol?

- A PARTICIPANT: Syracuse, New York.
- MS. HALVERSON: Okay.
- A PARTICIPANT: My name's Elizabeth,
- 4 and I'm from California.
- 5 MS. HALVERSON: Okay.
- A PARTICIPANT: I've been here nine
- 7 years.
- 8 MS. HALVERSON: Okay. Great.
- 9 A PARTICIPANT: My name's Ray, from
- 10 Denver, also a native.
- MS. HALVERSON: All right.
- A PARTICIPANT: I'm Tim. I'm another
- one of them newcomers. I've been here 17 years.
- MS. HALVERSON: Okay. Where did you
- 15 come from?
- A PARTICIPANT: Iowa.
- MS. HALVERSON: All right. But the
- 18 Broncos have converted you?
- A PARTICIPANT: Yeah.
- MS. HALVERSON: Okay, great. Well, as
- 21 my first question, I would like to ask you some
- 22 questions about fish. I know you're all kind of

- land locked around here, but, how many of you do
- 2 eat fish on a regular basis? One, two, three,
- 3 four of the group.
- Okay. The rest of you, who don't eat
- 5 fish, why is that? Ray?
- A PARTICIPANT: Well, you just said it.
- 7 It's a land locked area.
- MS. HALVERSON: Okay.
- A PARTICIPANT: It's hard to get fresh
- 10 fish other than trout or catfish or things like
- 11 that.
- MS. HALVERSON: Okay. Do you eat
- 13 anything like that, or like it?
- A PARTICIPANT: I do occasionally, yes.
- MS. HALVERSON: Okay. Elizabeth?
- 16 A PARTICIPANT: I love to eat halibut,
- 17 but it's too expensive to eat on a daily basis,
- 18 and so that's why --
- 19 MS. HALVERSON: Okay. Carol?
- 20 A PARTICIPANT: I eat salmon, but not
- on a regular basis, for the same reason.
- MS. HALVERSON: Okay.

1 . A PARTICIPANT: I will eat fish also

- 2 occasionally, but it's expensive.
- MS. HALVERSON: Okay. So those who
- 4 don't eat it regularly, it's primarily because of
- 5 cost. How about tuna fish? Do you eat canned
- 6 tuna?
- 7 A PARTICIPANT: Yeah.
- A PARTICIPANT: Yeah.
- 9 MS. HALVERSON: That kind of stuff?
- A PARTICIPANT: Um-hmm.
- 11 MS. HALVERSON: Okay. How about the
- 12 rest of you? How often would you say you eat
- 13 fish?
- A PARTICIPANT: I'd say, I guess I
- don't eat it that often. Once a month, maybe.
- 16 MS. HALVERSON: Okay. What kind do you
- 17 usually eat?
- 18 A PARTICIPANT: Trout or seafood.
- MS. HALVERSON: All right. Harry?
- 20 A PARTICIPANT: I usually try to eat
- 21 fish once or twice a week. Usually trout, but
- 22 sometimes something different, like web (sp)

- 1 fish.
- MS. HALVERSON: Okay. Is that because
- 3 you like it, or other reasons?
- A PARTICIPANT: Yeah, because I like
- 5 it.
- 6 MS. HALVERSON: Okay, Kathy?
- 7 A PARTICIPANT: We eat it maybe once or
- 8 twice a month. We eat a lot of tuna, just
- 9 because it's easy. But when we go out I like to
- 10 have fish with a little bit of meat or something,
- 11 so like white fish, or shrimp and pasta or some
- 12 things like that.
- MS. HALVERSON: Okay. And Tim?
- 14 A PARTICIPANT: I eat it about once
- 15 every week or two.
- 16 MS. HALVERSON: All right. What kind
- 17 do you like?
- 18 A PARTICIPANT: Orange roughy, mostly
- 19 white fish.
- MS. HALVERSON: Okay. What have you
- 21 heard about the benefits of eating fish?
- 22 A PARTICIPANT: The three fatty acids.

- MS. HALVERSON: Okay. Where have you
- 2 heard about that, Carol?
- A PARTICIPANT: Oh, you read it in
- 4 magazines, and the doctor tells you about it.
- 5 MS. HALVERSON: Okay. All right. Any
- 6 other benefits?
- 7 A PARTICIPANT: Doesn't it have a lot
- 8 of Vitamin D? There's a vitamin in there that I
- 9 like. Something about vitamins.
- 10 MS. HALVERSON: Okay. Some kind of
- 11 vitamins. All right.
- 12 A PARTICIPANT: I've heard that fish is
- 13 supposed to be good for the diet.
- MS. HALVERSON: Okay.
- A PARTICIPANT: And if you eat more of
- 16 it, but because of cost --
- 17 MS. HALVERSON: Okay. How about any
- 18 disadvantages of eating fish?
- A PARTICIPANT: Mercury poisoning.
- 20 MS. HALVERSON: Can you tell us about
- 21 that, Ray?
- 22 A PARTICIPANT: Well, it's been awhile

- back, but it had to do with tuna, and it had
- 2 mercury in it, or something, because of that, it
- 3 was used from the cans or from something or
- 4 other, and it was causing mercury poisoning.
- 5 MS. HALVERSON: Okay.
- A PARTICIPANT: Then with trout, if you
- 7 go fishing, you have ruling (sp) disease.
- MS. HALVERSON: What's that?
- 9 A PARTICIPANT: It's a disease that
- 10 affects the fish.
- 11 A PARTICIPANT: Parasite.
- 12 A PARTICIPANT: Apparently doesn't
- 13 affect humans, but who knows.
- MS. HALVERSON: Okay.
- 15 A PARTICIPANT: One of the
- 16 disadvantages is bones. That's probably why I
- 17 don't eat more fresh fish.
- MS. HALVERSON: Okay.
- 19 A PARTICIPANT: Um-hmm.
- 20 A PARTICIPANT: And it smells up the
- 21 house.
- MS. HALVERSON: Okay.

- 1 A PARTICIPANT: Yeah.
- MS. HALVERSON: All right.
- 3 A PARTICIPANT: Even like the pink
- 4 salmon that you buy in the grocery store and
- 5 stuff like that has the bones in it, whereas tuna
- 6 fish or things like that --
- 7 A PARTICIPANT: They claim with the
- 8 salmon you're supposed to eat the bones because
- 9 of the calcium.
- 10 A PARTICIPANT: Oh.
- A PARTICIPANT: Yeah.
- 12 A PARTICIPANT: This is strange.
- 13 MS. HALVERSON: I want to switch gears
- 14 a little bit and ask you about possible
- 15 environmental contaminants that you can come into
- 16 contact with, either through the air you breathe
- or the water you drink or the foods that you eat.
- 18 Things like mercury, as Ray mentioned, or lead or
- 19 pesticides.
- 20 First of all, have you heard of all
- 21 these contaminants, mercury, lead, pesticides?
- A PARTICIPANT: Um-hmm.

```
A PARTICIPANT: Uh-huh.
```

- MS. HALVERSON: When you think of
- 3 mercury, where would you think of encountering
- 4 that kind of environmental contaminant?
- 5 A PARTICIPANT: Lake Erie.
- 6 MS. HALVERSON: Lake Erie? Okay.
- 7 A PARTICIPANT: The ocean.
- 8 A PARTICIPANT: The ocean.
- 9 A PARTICIPANT: Maybe some mines that
- 10 have been closed down, like up in the mountains,
- 11 they used to process gold and silver and so
- forth, and in the water they used those type of
- 13 chemicals to process it.
- MS. HALVERSON: Okay. Ingrid?
- 15 Anything other thing?
- A PARTICIPANT: That's what I was
- thinking, and maybe some streams.
- 18 MS. HALVERSON: Okay. How about lead,
- 19 when you think of lead?
- 20 A PARTICIPANT: Paint, in older
- 21 buildings.
- MS. HALVERSON: Okay. Carol, where

- 1 would you think?
- A PARTICIPANT: Lead, I would think
- 3 mines also.
- 4 MS. HALVERSON: All right.
- 5 A PARTICIPANT: If your water's ground
- 6 water source, you could have much more heavy
- 7 metals in it, and also organic fertilizers.
- 8 MS. HALVERSON: Okay.
- 9 A PARTICIPANT: I'm thinking of
- 10 processing, like in cans or things that.
- MS. HALVERSON: Like processing in
- 12 cans?
- A PARTICIPANT: Right, like in a canned
- 14 fish or something.
- 15 A PARTICIPANT: Maybe in canned soups,
- 16 anything that has been canned.
- MS. HALVERSON: Okay.
- 18 A PARTICIPANT: Especially old cans.
- MS. HALVERSON: Okay. How about
- 20 pesticides?
- 21 A PARTICIPANT: Farms.
- MS. HALVERSON: Farms?

- A PARTICIPANT: Farms.
- A PARTICIPANT: Farms.
- A PARTICIPANT: Yeah.
- 4 A PARTICIPANT: Vegetables.
- 5 A PARTICIPANT: I'm worried about
- foreign, imported items would have more
- 7 pesticides and things that they watch out for
- 8 closer here.
- 9 MS. HALVERSON: Okay.
- 10 A PARTICIPANT: Also you probably get a
- 11 lot of pesticides in dumps and places like that.
- MS. HALVERSON: Okay.
- 13 A PARTICIPANT: Where they would dump
- 14 garbage. Sanitation dumps.
- A PARTICIPANT: It seems like they
- 16 would run off then like rain water or something,
- 17 pesticides will wash into streams.
- MS. HALVERSON: If there was an
- 19 environmental emergency of some kind that a bunch
- of, let's say there was a flood and a bunch of
- 21 extra nitrates got into the soil or something
- 22 like that. How would you expect to hear about

- that kind of environmental emergency, so that it
- got into your drinking water system, for example?
- A PARTICIPANT: News.
- 4 MS. HALVERSON: On the news?
- A PARTICIPANT: Radio, television.
- A PARTICIPANT: Neighbor.
- A PARTICIPANT: Word of mouth.
- A PARTICIPANT: Usually on the news.
- MS. HALVERSON: Usually hear on the
- 10 news? Okay. How about contamination that happens
- over time? You talked about pesticides which
- might be on fruits, or something like that. How
- 13 would you hear about those kinds of environmental
- 14 contaminants?
- A PARTICIPANT: I hear about those on
- 16 the Discovery Channel.
- MS. HALVERSON: Okay.
- A PARTICIPANT: Programs like Dateline
- and Nightline will do studies on how different
- 20 animals have eaten fish or something that would
- 21 contaminate them with pesticides.
- MS. HALVERSON: Okay.

```
A PARTICIPANT: Or the paper.
```

- MS. HALVERSON: Or the paper? For
- 3 something over time?
- A PARTICIPANT: I think so, if it's
- 5 something really important, they'll put it,
- 6 wouldn't they?
- 7 MS. HALVERSON: Okay.
- 8 (Simultaneous discussion.)
- 9 A PARTICIPANT: The EPA would cover it
- 10 up.
- MS. HALVERSON: Elizabeth brings up a
- 12 good issue. When is it news, so that you, as a
- 13 consumer, are finding that out? Tim, any --
- 14 A PARTICIPANT: Well, sometimes a
- 15 health group will suddenly make an issue out of
- it, or Dateline, or somebody like that, and they
- 17 can make it news.
- MS. HALVERSON: How important is it to
- 19 you to have information about both these
- 20 catastrophic kinds of things, where your water is
- 21 poisoned, as well as the over time kinds of
- 22 things?

- A PARTICIPANT: Very important.
- 2 A PARTICIPANT: Very important.
- MS. HALVERSON: How important is it to
- 4 you as a consumer?
- 5 A PARTICIPANT: Very.
- 6 MS. HALVERSON: For both kinds, or
- 7 mainly the catastrophic kind?
- A PARTICIPANT: I'd say both are
- 9 generally.
- 10 A PARTICIPANT: You hear about the news
- of the day type of thing often enough where you
- 12 feel kind of confident that you might hear about
- 13 something, but I don't think about down the road,
- 14 say, in three or five years down the road, what
- 15 possibly could happen. I don't think we hear
- 16 about that enough.
- MS. HALVERSON: Okay. What kind of
- information would be helpful to you about that
- 19 kind of thing, down the road?
- A PARTICIPANT: I know it's hard,
- 21 because you don't know what's going to happen
- 22 until it happens type of thing, like, how is it

```
going to affect my children or something if I
```

- 2 feed them this type of thing for five years or
- 3 whatever.
- 4 Am I going to find out five years later
- 5 that it's been harmful to them? Sometimes you
- 6 can't tell until the five years have passed, of
- 7 course, what the effects are going to be.
- A PARTICIPANT: It's like an example,
- 9 20 years ago, there was very little know about
- 10 the ozone breaking up on us. Now, 20 years
- later, we have to use these different types of
- 12 chemicals and hair spray and what have you, now
- the ozone, there's a hole up there somewhere, now
- 14 everybody's upset about that, because it was over
- 15 a 20 year period, something like that, I quess,
- 16 you know.
- MS. HALVERSON: Well, what I'd like to
- 18 concentrate on for the rest of our time is some
- 19 information about the topic that Ray actually
- 20 brought up, which is mercury in fish.
- 21 What they're trying to do is figure
- 22 out, how do you provide information that

1 consumers need? I think I've got enough copies.

- 2 I'm going to pass them out here.
- 3 I'm going to read this out loud, too,
- 4 if you don't have reading glasses with you.
- 5 A PARTICIPANT: Okay.
- 6 MS. HALVERSON: Okay. What I have is
- 7 three sets of information. The first page is
- 8 just an introductory paragraph. What we're going
- 9 to do first is look at the introductory
- 10 paragraph, and try and talk about that, and then
- 11 we'll go on to the more descriptive information
- 12 that they give you later on.
- 13 That's the format that we'll be
- 14 following. I have three examples that we'll be
- 15 reading and discussing. This one is called,
- 16 although we're doing it first, is called Example
- 17 Five. That makes sense, doesn't it? All right.
- 18 "Fish is an important source of high
- 19 quality protein, vitamins and minerals. Certain
- 20 fish species, however, are known to contain
- 21 higher levels of mercury than others.
- 22 "Pregnant women and women of child

```
1 bearing age are advised to eat a variety of
```

- 2 seafood, and to avoid eating those species that
- 3 may contain higher levels of mercury. These
- 4 species are listed below."
- 5 Let's hand on to this. We'll look at
- the second page in a bit. When we first look at
- 7 that information, what I'm interested in is not
- 8 so much how the information is laid out on the
- 9 pages, because we're obviously going to be doing
- 10 something with that, but the type of information
- that's being provided, and the types of messages
- 12 in the information.
- So we're looking at, are the key points
- made clearly? Who's the target of the message?
- 15 Is there enough detail? Is there too much
- 16 detail? That kind of thing.
- 17 This first introductory paragraph, does
- 18 that do a good job for you describing the hazard
- 19 from mercury? Ray, I'm asking you to kind of
- 20 hold off a little bit because you seem to know
- 21 something about mercury.
- 22 A PARTICIPANT: He's just knowledgeable

- about a lot of things.
- MS. HALVERSON: Tim?
- A PARTICIPANT: It doesn't really say
- 4 what it does. I mean, does it cause liver
- 5 problems, or heart problems or what?
- 6 MS. HALVERSON: Okay.
- 7 A PARTICIPANT: It just says it's bad
- 8 for your health.
- 9 MS. HALVERSON: Okay. Other responses?
- 10 Ingrid?
- A PARTICIPANT: I would like to know
- what it causes. My first impression is, it's
- 13 geared towards women of child bearing age and
- pregnant women, it's possibly birth defects.
- 15 That's what I'm reading into this.
- MS. HALVERSON: Okay.
- A PARTICIPANT: Can I say something
- 18 now?
- MS. HALVERSON: Yes, Ray.
- 20 A PARTICIPANT: No, just real quickly,
- 21 mercury, what it is, is, back in --
- MS. HALVERSON: Ray, Ray.

```
A PARTICIPANT: Time out?
```

- MS. HALVERSON: Time to make you the
- 3 teacher here. But I'd just like to get the feel
- from the information you're being provided, what
- 5 it's saying to you. Okay.
- 6 A PARTICIPANT: I think it's a little
- 7 vague, and it tends to make you think the worst
- 8 possible, than what it's trying to say.
- 9 MS. HALVERSON: Okay. Harry?
- 10 A PARTICIPANT: This is all kind of
- 11 funny, because just last night I watched a horror
- 12 movie on mercury poisoning.
- 13 (Laughter.)
- MS. HALVERSON: Oh, no!
- 15 (Laughter.)
- MS. HALVERSON: You don't think it's as
- realistic as information as Ray would have?
- A PARTICIPANT: Yeah, the communicate
- danger, but they're not very specific about it.
- MS. HALVERSON: Okay. I can't believe
- it. I have a guy in my group who watched a movie
- on mercury poisoning. Carol?

1 A PARTICIPANT: I agree with them. It

- 2 just makes you say, gee, better not have any
- 3 fish.
- MS. HALVERSON: Okay.
- A PARTICIPANT: I think it's pretty
- 6 vaque in what it's trying to say as far as
- 7 pregnant women, what it does, what would it do.
- MS. HALVERSON: Okay. Now, assume,
- g again, we're going to have a second page of
- information following, assume that this first
- 11 paragraph, you're reading it in a newspaper, or a
- pregnant woman is reading it at a doctor's
- office, I don't know where, would this paragraph
- make you want to read further, or not?
- 15 A PARTICIPANT: Definitely.
- A PARTICIPANT: Yeah.
- 17 A PARTICIPANT: I'd be interested in
- 18 reading further.
- MS. HALVERSON: Okay.
- 20 A PARTICIPANT: I mean, if I were
- 21 prequant, and if it was going to have some side
- 22 effect or harm on down the line, I would want to

- 1 know more about it.
- In general, just because I don't eat a
- 3 lot of fish, I would say that the first part,
- 4 that it mentions that the proteins, vitamins and
- 5 minerals, and I don't feel like I get enough of
- 6 it, that I should eat more of it.
- 7 MS. HALVERSON: Okay. Let's go to the
- 8 second page, then, and I'll read this out loud as
- 9 well.
- 10 "FDA warns consumers who are pregnant,
- thinking of becoming pregnant in the next six
- months, nursing a baby, choose the fish you eat
- 13 carefully.
- 14 "Four types of fish contain high levels
- of methyl mercury residues that can harm
- 16 developing fetuses and nursing babies. The
- 17 methyl mercury can accumulate in your body, so it
- is important to limit the amount you eat."
- 19 That's what you were going to say,
- 20 isn't it, Ray?
- Okay. "Be aware of these four fish,
- 22 and limit what you eat: Mackerel: do not eat.

- Shark: do not eat. Swordfish: do not eat. Tuna:
- 2 fresh or frozen, three times a month; canned,
- 3 four three-ounce servings a week.
- 4 "All other types of fish are safe to
- 5 eat, such as shellfish, halibut, or processed
- fish, such as fish sticks."
- 7 Okay. So you've read this entire sheet
- 8 of information. What is the most important point
- 9 that you take from it, Kathy?
- 10 A PARTICIPANT: I think the part that
- 11 tells me what it can do to your body.
- MS. HALVERSON: Okay.
- A PARTICIPANT: Then, of course,
- 14 telling me the specifics of which ones to use or
- 15 whatever.

- MS. HALVERSON: Okay. Elizabeth?
- A PARTICIPANT: I don't think it's
- 18 telling me why it's happening.
- MS. HALVERSON: Okay.
- A PARTICIPANT: Why it's happening,
- 21 that we'll, you know?
- A PARTICIPANT: What's causing it?

1 A PARTICIPANT: Yeah, what's causing

- 2 it.
- A PARTICIPANT: What's causing the
- 4 mercury to be put into fish?
- 5 MS. HALVERSON: Okay.
- A PARTICIPANT: Pretty serious.
- 7 MS. HALVERSON: Okay.
- A PARTICIPANT: You have to be pregnant
- 9 to take heed of this, what I'm reading here.
- MS. HALVERSON: Okay. Can I make an
- 11 assumption that there are no pregnant women in
- this group? Is that correct?
- A PARTICIPANT: No. I am.
- MS. HALVERSON: You are?
- 15 (Laughter.)
- A PARTICIPANT: No.
- MS. HALVERSON: Okay. So here, none of
- 18 us are pregnant women, and we're reading this
- 19 information. What does that, what kind of
- information is that for you, Elizabeth? You were
- 21 saying --
- 22 A PARTICIPANT: Well, I'd like to know

- 1 more information on why? How's this coming
- 2 about? What are we doing? Are we contaminating
- 3 these fish with chemicals? You hear about
- 4 chemicals being thrown into the river, you know.
- 5 MS. HALVERSON: Okay.
- A PARTICIPANT: And, why is it just
- 7 these fish that seem to be affected more than the
- 8 others.
- 9 A PARTICIPANT: Um-hmm.
- 10 A PARTICIPANT: Because I eat tuna, but
- 11 now I'm looking, it says three times a month.
- 12 Well, good thing I stopped eating it. I used to
- 13 eat tuna at least once a week. I'd make tuna
- 14 patties for the family.
- MS. HALVERSON: Um-hmm.
- A PARTICIPANT: See, that's one thing.
- 17 Even though I'm not pregnant or in that area, it
- 18 still would concern me. If it can affect an
- 19 unborn child, or something like that, could it
- 20 not also affect young children, when you're
- 21 preparing it at home?
- MS. HALVERSON: Okay. You're allowed

- 1 to speak, Ray.
- 2 (Laughter.)
- MS. HALVERSON: I just didn't want you
- 4 to give away the information.
- A PARTICIPANT: I don't know. It has a
- 6 lot of information in there. But again, I would
- 7 like to know the symptoms of, maybe, mercury
- 8 poisoning, in you --
- 9 MS. HALVERSON: Okay.
- 10 A PARTICIPANT: -- and find out some
- 11 symptoms, and when, actually, I should get the
- 12 symptoms.
- MS. HALVERSON: Okay.
- A PARTICIPANT: I think that would be
- 15 very beneficial. If one was pregnant, like you
- 16 were saying, if you were going in to see a doctor
- or something like that, and you saw this first
- page article in the paper or something, these are
- 19 some of the questions, or maybe some of the
- 20 things that you would want to hear from the
- 21 doctor, or, say, have the doctor give you this
- 22 kind of a list, that they have more research, or

- something like that.
- MS. HALVERSON: Okay. Kathy brought up
- 3 the issue that, well, she's not pregnant, but
- 4 what about young children?
- 5 A PARTICIPANT: You know, how safe
- 6 would it be for people who are pregnant? What
- 7 levels would be safe?
- 8 MS. HALVERSON: Okay. So if you saw a
- 9 chart, and it warns consumers who are pregnant,
- thinking of becoming pregnant, nursing a baby,
- 11 follow this advice, how do you interpret that
- information for you?
- A PARTICIPANT: I wouldn't think it
- 14 would apply to me.
- MS. HALVERSON: Okav.
- 16 A PARTICIPANT: If I was a male reading
- this, I wouldn't think it would be applied to me.
- MS. HALVERSON: Okay.
- A PARTICIPANT: I wouldn't.
- 20 A PARTICIPANT: Although it does,
- 21 because it says --
- 22 (Simultaneous discussion.)

A PARTICIPANT: I wouldn't take a

- 2 chance.
- A PARTICIPANT: -- mercury --
- MS. HALVERSON: Okay, Carol and Tim,
- 5 Carol, can you repeat that, because Tim was
- talking at the same time, and I want to hear both
- 7 of you.
- 8 A PARTICIPANT: Well, the one sentence
- 9 is that methyl mercury can accumulate in your
- 10 body. It doesn't, that can be for anybody, not
- 11 just pregnant or becoming pregnant.
- MS. HALVERSON: Okay.
- A PARTICIPANT: Um-hmm.
- MS. HALVERSON: And Tim?
- A PARTICIPANT: I would be reluctant to
- 16 buy it. I probably wouldn't. I mean, if there's
- two kinds of fish side by side, and I knew this
- one contained mercury and this one didn't, I'd
- 19 definitely buy the one that didn't.
- MS. HALVERSON: Okay. Now, there are
- 21 these three that say, "Do not eat." And then for
- 22 tuna, it says, "Fresh or frozen, three times a

month, or canned tuna, four three-ounce servings

- 2 a week."
- 3 How would you respond to the canned
- 4 tuna?
- A PARTICIPANT: I would never buy it
- 6 again. I would cut back if I ate a lot. I would
- 7 cut back on it quite a bit. I'd have it
- 8 occasionally.
- 9 MS. HALVERSON: Okay.
- A PARTICIPANT: You know, the funny
- part is, this has been out, like I said, for 20
- 12 years. I know there's mercury in that tuna. I
- 13 still eat it, you know?
- Again, like I said, I don't know how
- much mercury, after a prolonged period of time,
- 16 would accumulate in my liver, or wherever it
- 17 accumulates, and what it's going to do to me.
- What are -- I mean, I know mercury
- drives people crazy, all right. It's like the
- 20 Mad Hatter in Alice in Wonderland. Back in the
- 21 days they used mercury to clean hats, a lot of
- those people went crazy because of that.

- 1 Getting to the point, how much, over a
- 2 prolonged period of time, like I say, if you ate
- tuna for 20 years, straight, every day, what's
- 4 going to happen to you?
- 5 What are some of the symptoms, so I can
- 6 know to watch out for it, if I'm going to eat the
- 7 tuna or the --
- 8 MS. HALVERSON: Why do you think they
- 9 list canned tuna separately?
- A PARTICIPANT: Well, there's such a
- 11 difference in the time frame, from three times a
- month to four times a week. That's a lot of
- 13 difference.
- 14 A PARTICIPANT: Maybe it's because of
- 15 the processing.
- A PARTICIPANT: Um-hmm.
- 17 A PARTICIPANT: It gets rid of some of
- 18 it.
- 19 A PARTICIPANT: Or maybe the way the
- 20 different fish dilute the mercury in their own
- 21 bodies. Maybe these fish, like mackerel, shark
- and swordfish, might not be able to dispose of

```
mercury quickly through their own body process.
```

- MS. HALVERSON: Okay.
- A PARTICIPANT: And tuna, you know.
- 4 MS. HALVERSON: Any other?
- 5 A PARTICIPANT: Yes, I think it could
- 6 also be due to pressures, that might be a bigger
- 7 industry.
- 8 (Simultaneous discussion.)
- 9 A PARTICIPANT: Much more lobbying
- 10 power.
- A PARTICIPANT: Um-hmm.
- MS. HALVERSON: Okay.
- A PARTICIPANT: Yeah.
- 14 A PARTICIPANT: I can see that --
- 15 (Simultaneous discussion.)
- 16 A PARTICIPANT: -- tuna have some big
- 17 --
- A PARTICIPANT: Right.
- 19 A PARTICIPANT: You're right.
- 20 A PARTICIPANT: Supply and demand.
- MS. HALVERSON: Okay. In general, is
- 22 the information about how often to eat the fish

- on this chart easy to understand, or not?
- 2 A PARTICIPANT: Yes.
- A PARTICIPANT: Yes.
- 4 MS. HALVERSON: It is easy to
- 5 understand? Would it be easy to use, in terms of
- 6 monitoring your own, or a pregnant woman's --
- 7 A PARTICIPANT: I think it would be.
- 8 Just put it on your wall and look at it, and
- 9 don't eat this, and --
- 10 A PARTICIPANT: Yeah.
- 11 A PARTICIPANT: Yeah.
- MS. HALVERSON: Okay.
- 13 A PARTICIPANT: I think, like Ray said
- 14 earlier, as far as signs and symptoms, like if
- 15 you have a cold of flu or something like that,
- 16 what are the things to watch out for if you have
- 17 too much mercury. How's it going to --
- 18 A PARTICIPANT: I mean, are you going
- 19 to start going blind, or you start walking with a
- 20 limp, or something, you know, the mercury's going
- 21 to -- I'd better watch out for that.
- MS. HALVERSON: Harry's the expert on

- what really happens with mercury poisoning after
- 2 his movie, so you'll have to ask him afterwards.
- A PARTICIPANT: It will degrade the
- 4 insulating sheathing around your nerves, and your
- 5 nerves will short out and you'll go into
- 6 convulsions.
- 7 A PARTICIPANT: Um-hmm.
- MS. HALVERSON: Okay. I'm passing
- 9 around something now that's called "Example
- 10 Three". Does everybody have a copy, there? Okay.
- 11 This one, I'll also read out loud.
- "A recent report from the National
- 13 Academy of Science has looked at the evidence
- 14 that mercury can cause learning problems in
- 15 children exposed to high levels of mercury in the
- 16 mother's diet during pregnancy.
- "Since fish are the main source of
- dietary exposure to mercury, the EPA and FDA are
- providing guidelines about the kinds and amount
- of fish that pregnant and nursing mothers, and
- 21 women of child bearing age can safely eat without
- 22 exposing their children to any significant risk

- of harm."
- Okay, let's stay on this first page
- again, and I'd like to ask the same kinds of
- 4 questions. First of all, does this do a good job
- of describing what the hazard is from mercury for
- 6 you?
- 7 A PARTICIPANT: No.
- MS. HALVERSON: No?
- A PARTICIPANT: It just says they're
- 10 going to. It says they're going to tell you.
- MS. HALVERSON: It says they're going
- 12 to tell you. Okay.
- A PARTICIPANT: I was just going to say
- 14 the same thing. It says, "learning problems". I
- think they need to expound on that a little bit
- 16 more.
- MS. HALVERSON: Okay.
- A PARTICIPANT: I also --
- A PARTICIPANT: Learning problems could
- 20 be a lot of different things.
- 21 A PARTICIPANT: I also think these
- 22 should also include adults along with children in

- there. I mean, I understand children are our
- future, but then again, I'd like to know what's
- 3 going to, again, some of the --
- A PARTICIPANT: What it's going to do
- 5 to you.
- A PARTICIPANT: -- yeah.
- 7 MS. HALVERSON: Okay. Any other
- 8 responses? Would this kind of introduction help
- 9 you understand who should be paying attention to
- 10 the advice, and why?
- A PARTICIPANT: No.
- MS. HALVERSON: Why is that?
- A PARTICIPANT: Because in the first
- one, it mentioned pregnant women.
- MS. HALVERSON: Um-hmm.
- A PARTICIPANT: Now, if this is the
- intent of the warning, it should include,
- 18 "Pregnant women should not eat these things in
- 19 child bearing age." Then it should put, also
- 20 include children, say, "This may cause your
- 21 children to have a learning disability."
- MS. HALVERSON: Okay.

- A PARTICIPANT: Because of the, you
- 2 know. Include that in there. So I don't think it
- 3 really warns all the things.
- 4 MS. HALVERSON: Okay. Carol? What's
- 5 your response?
- A PARTICIPANT: Not bad, but it should
- 7 include everybody.
- MS. HALVERSON: Okay.
- 9 A PARTICIPANT: Also, that warning
- 10 about if you're planning on getting pregnant.
- 11 That's not in this one.
- 12 MS. HALVERSON: Okay. Julia, it looked
- 13 like you were going to say something?
- A PARTICIPANT: No, no.
- MS. HALVERSON: Okay. All right. Is
- 16 there anything about the introduction that sounds
- 17 confusing to you? No? All right. And the
- important information that's missing, Ingrid, you
- 19 said it should include, "If you're planning to
- 20 become pregnant."

- 21 A PARTICIPANT: Right.
- MS. HALVERSON: Okay. Any other

- important information missing?
- A PARTICIPANT: I think they probably
- 3 figure when they write, "Women of child bearing
- 4 age" that includes people planning on being
- 5 pregnant, in their minds.
- 6 MS. HALVERSON: Okay.
- A PARTICIPANT: In their minds, they
- 8 probably figure that covers that.
- 9 MS. HALVERSON: Okay. All right, let's
- 10 go to the next page. As you can tell, this is a
- 11 different format and different kinds of
- information that they're providing, so try and
- 13 forget the first one that we looked at, and just
- 14 look at this information.
- 15 It says, "What kind of fish should I
- 16 eat? Women who are, or may become pregnant
- within six months, and nursing mothers, should
- 18 consume types of fish known to have low levels of
- mercury, see Table 1, and should avoid fish known
- to have high levels of mercury, see Table 2.
- 21 "The fish in Table 1 can generally be
- 22 eaten a total of two to three times per week

- without concern for adverse effects from mercury,
- 2 with each meal size being six ounces of cooked
- fish or eight ounces of uncooked fish. Breaded
- 4 fish sticks, fish sandwiches, and imitation crab
- 5 meat are generally made from these fish, and so
- 6 usually have low levels of mercury."
- 7 "Table 1: Fish and seafood that are
- 8 generally low in mercury; may be consumed a total
- 9 of two to three times per week by pregnant and
- 10 nursing women."
- 11 They list in three different columns
- all different kinds of fish and seafood that are
- 13 generally low in mercury.
- 14 "What fish should I avoid? The fish in
- 15 Table 2 are known to have high levels of mercury,
- and should be avoided by women who are, or may
- 17 become pregnant within the next six months, and
- 18 nursing mothers."
- 19 "Table 2: Fish and seafood that are
- 20 generally high in mercury should be avoided by
- 21 pregnant and nursing women. King mackerel,
- 22 shark, swordfish, tile (sp) fish (ocean white

- 1 fish).
- "What about tuna? For canned tuna,
- 3 which is the most frequently consumed purchased
- fish, a total of two to three three-ounce cans
- 5 may be consumed per week.
- 6 "What about fish not on the list? For
- 7 all other fish and seafood not listed,
- 8 consumption should be limited to one meal per
- 9 week, six ounces cooked, eight ounces uncooked,
- 10 by women who are or may become pregnant within
- 11 six months, and nursing mothers.
- "This applies to fish bought in a store
- or restaurant, and to all fresh water fish caught
- by you or your family in local waters."
- A PARTICIPANT: This is too wordy.
- MS. HALVERSON: Too wordy?
- 17 A PARTICIPANT: Too much information to
- 18 know. I mean, it seems like all the other fishes
- 19 are low with mercury. Fine. I don't care. What
- 20 I want to know is, which ones have high levels of
- 21 mercury, and that should be addressed. Not this
- 22 other stuff.

- MS. HALVERSON: Okay. How about the
- 2 rest of you?
- A PARTICIPANT: It would be interesting
- 4 to read once, you know.
- 5 MS. HALVERSON: Okay.
- A PARTICIPANT: It would answer some
- 7 questions. But it wouldn't be a constant
- 8 reference.
- 9 A PARTICIPANT: Um-hmm.
- MS. HALVERSON: Okay.
- A PARTICIPANT: I think sometimes if it
- is too lengthy, you tend to skip things on there.
- 13 I think if it gets to the point, and yet you know
- 14 that you yourself can get more information.
- A PARTICIPANT: I think this is pretty
- 16 good, because instead of just describing two to
- three different kinds of fish you can eat, it's
- the whole much larger list here, and it includes
- 19 shellfish.
- MS. HALVERSON: Okay. So you like
- 21 having the list of what you can eat there?
- 22 A PARTICIPANT: Yeah.

 \sim 44

- MS. HALVERSON: Okay.
- A PARTICIPANT: I think that's
- beneficial also. I mean, if I were pregnant, or
- 4 going in to see a doctor, these are the kinds of
- things, you know, what can I eat.
- MS. HALVERSON: Okay. Again, I want to
- 7 remind you, we don't have to come to consensus
- 8 here. What's important is just hear how
- 9 everybody feels. I've heard some descriptions
- of, "I don't want that much information," and
- others saying, "I kind of like that." How about
- 12 the rest of you?
- A PARTICIPANT: I like the information
- 14 also.
- MS. HALVERSON: Okay. What is it that
- 16 you like about it, Ingrid?
- A PARTICIPANT: Well, it just kind of
- eliminates some questions that you might have as
- 19 to which kind of fish you can eat. But then, if,
- I mean, and then, you can do further research on
- your own, but you could always just cut out the
- list of the fish you can eat and post it

- 1 someplace.
- A PARTICIPANT: Yeah. At least it's
- 3 something you can take to the store and say, I
- 4 can buy these, don't buy these.
- 5 MS. HALVERSON: Okay. Any others that
- 6 haven't spoken yet? Carol?
- 7 A PARTICIPANT: I like the list,
- 8 actually, because I'm just used to hearing about
- 9 tuna and my halibut, but this gives me wider
- 10 information here.
- MS. HALVERSON: Okay. Carol?
- A PARTICIPANT: I agree. It's good.
- MS. HALVERSON: So you kind of like the
- 14 list too?
- A PARTICIPANT: Yes. Definitely.
- MS. HALVERSON: Okay. How do they
- 17 treat the issue of tuna here?
- A PARTICIPANT: They want you to eat
- 19 it.
- 20 A PARTICIPANT: Yeah.
- MS. HALVERSON: Okay.
- A PARTICIPANT: More than the others.

- A PARTICIPANT: This a tuna company?
- 2 A PARTICIPANT: I know.
- 3 (Laughter.)
- A PARTICIPANT: Put it in our computer,
- 5 here.
- 6 A PARTICIPANT: Does there need to be
- 7 an exception made for tuna, or can it be
- 8 classified as good or bad?
- 9 MS. HALVERSON: Okay, all right.
- 10 Harry, you said, "classified as good or bad."
- 11 Are you saying that one table is saying these are
- 12 good fish and the other table is saying these are
- 13 bad fish?
- A PARTICIPANT: Yeah.
- A PARTICIPANT: Um-hmm.
- 16 MS. HALVERSON: Okay, which table says
- they're good fish?
- A PARTICIPANT: The larger one.
- MS. HALVERSON: Okay. So Table 1? And
- 20 Table 2 is bad fish?
- 21 A PARTICIPANT: Yeah, you can look at
- 22 it that way if you want to.

- MS. HALVERSON: Okay. Where is tuna,
- 2 then? If I --
- A PARTICIPANT: Kind of in the middle.
- 4 MS. HALVERSON: All right.
- 5 (Simultaneous discussion.)
- 6 MS. HALVERSON: Let me try and --
- 7 A PARTICIPANT: We know tuna's not any
- 8 of the three categories there.
- 9 A PARTICIPANT: It's not in the --
- 10 A PARTICIPANT: It's by itself.
- MS. HALVERSON: Okay. All right. So
- you have your "good fish" up here, and you're
- saying that's Table 1, and your "bad fish" down
- here, and that's Table 2. Where's tuna?
- 15 A PARTICIPANT: It's not there.
- 16 MS. HALVERSON: Where would you put it.
- A PARTICIPANT: It's in a --
- 18 MS. HALVERSON: If this were on a
- 19 continuum --
- A PARTICIPANT: Table 3.
- MS. HALVERSON: -- good to bad, bad to
- 22 good, where would you put the tuna?

- 1 A PARTICIPANT: In the middle.
- A PARTICIPANT: In the middle.
- MS. HALVERSON: Tuna.
- A PARTICIPANT: I think it would be
- 5 higher than that. Because if you eat it the most
- often, it should be at the top.
- 7 MS. HALVERSON: Okay. Up here?
- A PARTICIPANT: I would think so.
- 9 A PARTICIPANT: Probably second or
- 10 first. Right there.
- 11 MS. HALVERSON: Kathy, you want to come
- up and put it where you think it belongs?
- 13 A PARTICIPANT: Well, I also think it
- 14 depends on whether you're talking about pregnant
- 15 women or non-pregnant women, which I don't think
- 16 we're going to --
- A PARTICIPANT: See, I understood it
- 18 that if you can eat it that many times a week, it
- 19 would be like the first.
- MS. HALVERSON: Okay. Anyone else have
- 21 a different place you'd like to put it?
- 22 A PARTICIPANT: Yeah. I would put it

- 1 lower.
- MS. HALVERSON: Tim, Tim. Come here.
- 3 Come here. Get your act up here.
- 4 (Laughter.)
- 5 A PARTICIPANT: I would put it about
- 6 right there.
- 7 MS. HALVERSON: Okay, and why would
- 8 that be?
- 9 A PARTICIPANT: Just because it sounds
- 10 fishy.
- 11 (Laughter.)
- MS. HALVERSON: All right. Okay. So
- tuna, we've got in three different places here.
- 14 All right. I have another question. How about
- this last section that says, "Fish not on the
- list. For all other fish and seafood not
- 17 mentioned, consumption should be limited to one
- 18 meal per week by women who are or may become
- 19 pregnant within six months, and nursing mothers.
- 20 "This applies to fish bought in store
- 21 or restaurant, and to all fresh water fish caught
- 22 by you or your family in local waters." Where

- would you put all those other fish? Julia?
- A PARTICIPANT: I want to come over and
- 3 --
- 4 MS. HALVERSON: Those other fish?
- 5 A PARTICIPANT: Yeah.
- A PARTICIPANT: I like them right
- 7 there.
- A PARTICIPANT: If you're going to
- g catch it yourself, you have to be careful about
- where you catch it, because some streams can be
- 11 more contaminated than others.
- MS. HALVERSON: Okay. So they're
- 13 saying here, good fish, bad fish, according to
- 14 your classifications. I'm trying to figure out,
- 15 you know, we've had some confusion about tuna,
- 16 here, and how about the fish not on the list?
- 17 Are they closer to the good fish table, or to the
- 18 bad fish table?
- A PARTICIPANT: We don't know.
- 20 (Simultaneous discussion.)
- A PARTICIPANT: I wouldn't be concerned
- about any other fish. I mean, if I don't know

- the names of them in the first place.
- 2 A PARTICIPANT: Why does it seem like
- 3 they addressed all the ocean fish? What about
- 4 fresh water fish, like catfish and trout, what
- 5 have you?
- 6 MS. HALVERSON: All right. What does
- 7 this page of information tell you about that,
- 8 then?
- 9 A PARTICIPANT: It says all other fish.
- MS. HALVERSON: Okay.
- 11 A PARTICIPANT: It states that you can
- 12 be limited to one meal per week, where this up
- here says, the good fish, two to three times per
- 14 week.
- MS. HALVERSON: Okay.
- A PARTICIPANT: So it's at the bottom
- of the good fish, before the bad fish.
- MS. HALVERSON: Okay.
- 19 A PARTICIPANT: I also noticed that the
- 20 fish it says are bad are the larger fish that are
- 21 much older and they've had more time to
- 22 accumulate the poison.

```
MS. HALVERSON: Okay. All right.
```

- A PARTICIPANT: Another thing I noticed
- is, they talk about canned tuna, but not fresh
- 4 tuna.
- A PARTICIPANT: Oh, that's true.
- MS. HALVERSON: Okay. So that's a
- difference here? How, again, imagine you're a
- 8 pregnant woman, and this is the information that
- 9 you get. Ray, think back to when you were
- 10 pregnant.
- 11 (Laughter.)
- 12 A PARTICIPANT: It was years ago.
- MS. HALVERSON: Why am I giving Ray
- 14 such a hard time today? I don't know. It's just
- 15 fun. All right. So we're thinking back to when
- we were pregnant, and we have this information.
- 17 How easy is this advice to follow?
- 18 A PARTICIPANT: To me it would be real
- 19 easy.
- MS. HALVERSON: Real easy?
- A PARTICIPANT: Um-hmm.
- MS. HALVERSON: Okay.

- A PARTICIPANT: It seems like it would
- 2 be fairly easy to follow.
- A PARTICIPANT: I think you could just
- 4 take this to the store with you.
- 5 MS. HALVERSON: Okay.
- A PARTICIPANT: I mean, even when
- you're going out to a restaurant, you could just
- 8 put it in your purse and make sure that, like my
- 9 sister has allergies, severe allergies to fish.
- 10 When she goes out to restaurants, she has to make
- 11 sure that she doesn't eat certain kinds of fish,
- or else she has a severe reaction.
- 13 It's happened a couple of different
- times when she's gone out, and she'll take a
- bite, and she'll say, "Look, I asked you, does
- 16 this have a certain kind of fish in it." She
- 17 knows right away, and she'll get severe reactions
- 18 to it.
- MS. HALVERSON: Okay. How about the
- 20 rest of you? Oh, go ahead, Elizabeth.
- 21 A PARTICIPANT: You know, if I was
- 22 pregnant and read this, I probably would not eat

- fish, period.
- MS. HALVERSON: Why would that be?
- A PARTICIPANT: Just to be safe.
- 4 MS. HALVERSON: Okay.
- 5 A PARTICIPANT: I don't know. It's
- just something about what's going on here, you
- 7 know? Maybe look at this tuna, and I used to like
- 8 tuna, but now this is giving me thoughts, you
- 9 know, why is this sticking out, you know, the
- tuna? Why are we talking so much about tuna?
- MS. HALVERSON: Okay.
- A PARTICIPANT: Well, you're taking
- other risks by not eating fish.
- MS. HALVERSON: All right.
- A PARTICIPANT: The other health risks
- 16 from the fatty acids that you need.
- 17 A PARTICIPANT: And then the tuna has
- this one can that has water, and one that has
- oil, right? Isn't that, when you go to buy?
- 20 A PARTICIPANT: Yeah, one packed in
- 21 water, one packed in oil.
- 22 A PARTICIPANT: Yeah.

```
1 A PARTICIPANT: Um-hmm.
```

- 2 A PARTICIPANT: So which one's better
- 3 for you?
- 4 MS. HALVERSON: Okay.
- 5 A PARTICIPANT: Right.
- A PARTICIPANT: See, I like the other
- 7 format better than this one, because I think this
- 8 one's almost a little too time consuming to get
- 9 the information that you're looking for.
- A PARTICIPANT: Um-hmm.
- 11 A PARTICIPANT: The other one may be
- more vague, but it pretty much tells you yes or
- no, and then it kind of leaves it up to you.
- 14 A PARTICIPANT: Yeah, the other one,
- 15 again, it tells you right off the bat, don't eat
- this fish. The other one's, go on and eat, but
- 17 do it in moderation, you know.
- A PARTICIPANT: Is it limited, or --
- MS. HALVERSON: Okay, let's set this
- one aside, and the third example I want to show
- 21 you is called "Example Four" just to keep us all
- 22 confused.

```
1 A PARTICIPANT: Thank you.
```

- MS. HALVERSON: Okay. This one says,
- 3 "Seafood is an important and growing part of the
- 4 American diet. Seafood provides significant
- 5 nutritional benefits to consumers.
- 6 "Some seafood, particularly large ocean
- 7 fish and fresh water fish caught in contaminated
- 8 waters, may contain levels of mercury that pose a
- 9 rise to babies of pregnant and nursing mothers.
- 10 "The FDA and EPA advise women who are
- 11 pregnant, or may become pregnant within six
- months, or are nursing mothers, to follow the
- 13 safe eating guidelines outlined below.
- 14 "This advice should not be taken as a
- 15 need to abstain from consuming seafood, except as
- 16 indicated."
- 17 All right. Does this handout do a good
- job of describing the hazard for mercury?
- A PARTICIPANT: Yeah, I think it does.
- 20 A PARTICIPANT: Um-hmm.
- A PARTICIPANT: Yeah.
- A PARTICIPANT: Yeah, and it doesn't

```
1 come right off with a big threat. It kind of
```

- 2 first reassures you that it's okay to eat it if
- 3 it's not on this list.
- 4 MS. HALVERSON: Okay. Kathy?
- 5 A PARTICIPANT: I agree.
- A PARTICIPANT: I agree with it too.
- 7 A PARTICIPANT: Um-hmm.
- 8 MS. HALVERSON: All right.
- 9 A PARTICIPANT: Maybe the Canning
- 10 Institute probably wrote this up.
- MS. HALVERSON: Who did?
- 12 A PARTICIPANT: The Canning Institute.
- 13 A PARTICIPANT: They want us to eat
- 14 more tuna.
- A PARTICIPANT: Yeah.
- A PARTICIPANT: Then you can tell them,
- 17 you know, we accept that part of our diet.
- 18 MS. HALVERSON: Would this kind of
- 19 introduction help you understand who should be
- 20 paying attention to the advice that's going to
- 21 follow?

····

22 A PARTICIPANT: Yeah.

- 1 A PARTICIPANT: Yeah.
- A PARTICIPANT: Yeah.
- MS. HALVERSON: It would?
- A PARTICIPANT: I think it's a little
- 5 more kinder. It doesn't come out with a -- the
- 6 fact, it scares you.
- 7 A PARTICIPANT: Scary.
- 8 A PARTICIPANT: Stats.
- 9 MS. HALVERSON: Okay.
- 10 A PARTICIPANT: Yeah.
- MS. HALVERSON: Do you find anything
- about this particular introduction confusing?
- A PARTICIPANT: No.
- MS. HALVERSON: Anyone?
- A PARTICIPANT: Not confusing.
- MS, HALVERSON: Not confusing? Okay.
- 17 A PARTICIPANT: I would just think, how
- would you know, like if you're fishing, how would
- 19 you know how contaminated the water is that --
- MS. HALVERSON: Okay.
- A PARTICIPANT: Yeah.
- 22 MS. HALVERSON: Is there any important

```
information that's missing from this
```

- 2 introduction? You've become kind of experts on
- 3 mercury, now. Any information missing?
- A PARTICIPANT: The only thing it
- 5 doesn't address in this one that it did in the
- 6 last one is that it may affect your child's
- 7 learning abilities.
- MS. HALVERSON: Okay.
- A PARTICIPANT: But then again, this
- nentions that it causes birth defects, so that's,
- 11 I don't know, maybe if that's bothering, you can
- call the doctor up or call Sea King or something
- 13 and ask them.
- MS. HALVERSON: Okay. Is the
- information that was in the other introduction
- 16 about causing learning problems, is that
- 17 important information to contain in the
- 18 introduction or not?
- A PARTICIPANT: Oh, I think so. I
- 20 think someone should know. I would like to know
- 21 that.
- MS. HALVERSON: Okay.

- A PARTICIPANT: That would be important
- 2 to me if I had children.
- A PARTICIPANT: This is just an
- 4 introduction. It would make you want to read on
- 5 to see what kind of risks it poses.
- 6 MS. HALVERSON: Okay.
- 7 A PARTICIPANT: Who else is affected
- 8 besides babies?
- 9 MS. HALVERSON: All right. Let's go
- 10 ahead and read on, then.
- 11 "Fish safe eating guidelines. Fresh
- 12 water farm raised catfish or trout: there is no
- 13 mercury --
- A PARTICIPANT: Yay!
- 15 (Laughter.)
- MS. HALVERSON: -- "in these species."
- 17 Never have I had a cheering section.
- 18 (Laughter.)
- 19 MS. HALVERSON: "Ocean fish: Swordfish,
- 20 shark, king mackerel, and tile fish: no meals for
- 21 women who are pregnant, women who may become
- 22 pregnant in the next six months, and nursing

- 1 mothers.
- 2 "American favorites: canned tuna,
- 3 three- ounce serving: up to four three-ounce
- 4 servings per week for women who are pregnant,
- 5 women who may become pregnant in the next six
- 6 months, and nursing mothers.
- 7 "No limits for others as part of a
- 8 balanced diet. There are no limits for anyone as
- 9 part of a balanced diet for the following top
- 10 species, which make up the majority of the
- 11 seafood market: canned salmon, shrimp, salmon,
- pollock, catfish, cod, clams, flounder, scallops,
- and fish sticks. No one should eat lobster
- 14 tamale."
- A PARTICIPANT: What's lobster tamale?
- MS. HALVERSON: Again, I warn you, I'm
- 17 not an expert here, I'm the topic --
- A PARTICIPANT: That must be Spanish or
- 19 something, to be a lobster tamale.
- 20 MS. HALVERSON: Does anyone know what
- 21 lobster tamale is?
- A PARTICIPANT: Hmm-umm.

- 1 A PARTICIPANT: Never heard of that
- 2 one.
- 3 MS. HALVERSON: Okay.
- A PARTICIPANT: Isn't it --
- 5 MS. HALVERSON: Ingrid might know.
- A PARTICIPANT: No, you can probably
- 7 explain it better than me.
- MS. HALVERSON: I don't think I can.
- 9 A PARTICIPANT: This is what I think it
- 10 is.
- MS. HALVERSON: Okay.
- 12 A PARTICIPANT: I'm not a hundred
- 13 percent sure. I think it's like the inside part,
- 14 the green stuff inside of it.
- MS. HALVERSON: You know how you get a
- whole lobster?
- A PARTICIPANT: Yeah, some people like
- 18 it.
- MS. HALVERSON: Okay. I've only had it
- 20 explained to me in other focus groups, and that's
- 21 pretty much what they said, so again, as I said,
- 22 I'm not an expert here.

- 1 A PARTICIPANT: Right.
- MS. HALVERSON: All right. So you read
- 3 that information along with the "Example Four"
- 4 introduction, and what do you think is the most
- 5 important piece of advice that you take from
- 6 this?
- 7 A PARTICIPANT: Still, which fish to
- 8 avoid.
- 9 MS. HALVERSON: Okay.
- 10 A PARTICIPANT: It says, "No meals for
- 11 women." They don't say you can have one every 30
- 12 days. They tell you exactly no meals.
- MS. HALVERSON: Okay.
- 14 A PARTICIPANT: Be cautious about what
- 15 type of fish you're picking.
- MS. HALVERSON: Okay.
- 17 A PARTICIPANT: With this one, I'd be
- 18 more inclined to continue eating fish than the
- 19 other ones. The other ones kind of scared me,
- and it's like, well, maybe I should just become a
- 21 vegetarian.
- MS. HALVERSON: You would continue

```
1 eating fish, are you talking as if you were a
```

- 2 pregnant woman, or as yourself?
- 3 A PARTICIPANT: Just in general.
- 4 MS. HALVERSON: Oh, okay.
- 5 A PARTICIPANT: Yeah.
- 6 MS. HALVERSON: All right, so it
- 7 doesn't scare you off?
- 8 . A PARTICIPANT: No, this one doesn't
- 9 scare me off. And the other did kind of.
- 10 MS. HALVERSON: Ah. That didn't
- 11 exactly come out earlier. All right, so in the
- 12 first two examples we were looking at, were
- others of you feeling that way as well?
- 14 A PARTICIPANT: Being that I don't eat
- 15 much fish anyway, and I'm on a limited budget, I
- 16 tend to feel like whether I was pregnant or not,
- given the information that we've read, the things
- 18 that said to eat in moderation or not eat at all,
- 19 I wouldn't eat any of those, but if is said it
- 20 was safe to eat the other ones, I probably would
- 21 go ahead and eat that.
- MS. HALVERSON: Okay. Any other

1 reactions to the difference between the first two

- 2 and this one, as Ingrid said?
- A PARTICIPANT: I know I would like to
- 4 see which areas of the country is more
- 5 contaminated than the other so you'd know what
- 6 the source of your fish was.
- 7 MS. HALVERSON: Okay. So you'd like
- 8 more information on the source of the fish in
- 9 terms of contamination levels?
- 10 A PARTICIPANT: Yeah.
- 11 MS. HALVERSON: All right.
- A PARTICIPANT: Are there any Pacific
- 13 fish, you mean, Gulf of Mexico?
- A PARTICIPANT: Or that's where there's
- 15 like there are certain areas of Colorado that,
- because of the gold mining, have high mercury in
- some areas, and you'd like to know which river
- 18 your fish came out of.
- 19 MS. HALVERSON: Okay. All right.
- Let's go back to this, and again, we're all
- 21 pregnant women here, and we're thinking, "How
- 22 well does this particular chart explain to me how

- I, as a pregnant woman, should be responding?
- want to eat fish, because I want those Omega-3
- 3 fatty acids." Right, Carol?
- A PARTICIPANT: That's right.
- 5 MS. HALVERSON: So, I want to eat fish.
- 6 Does this chart tell me how I should choose my
- 7 fish?
- 8 A PARTICIPANT: Looks like it does.
- 9 MS. HALVERSON: It does.
- 10 (Simultaneous discussion.)
- MS. HALVERSON: What was that, Harry?
- 12 A PARTICIPANT: It says what not to
- eat, but it doesn't really say what to eat.
- MS. HALVERSON: Okay.
- 15 A PARTICIPANT: It just tells you
- 16 American favorites.
- MS. HALVERSON: Okay.
- A PARTICIPANT: To me, as a shopper,
- when I go, I don't particularly like to spend a
- lot of time in the grocery store. So if I know
- 21 what I can't, that eliminates that area, so then
- I know these others would be okay.

- 2 would be asking my doctor more information
- 3 anyway, and maybe have more information when I
- 4 went to the store on particular stuff. But I
- 5 think this kind of cuts down on times like, I
- 6 know I can't have those, and these are ones I
- 7 can.
- MS. HALVERSON: Okay.
- 9 A PARTICIPANT: I think it's kind of
- 10 harder to distinguish on this than the last one,
- 11 especially when they throw that last sentence in
- 12 about, no one should eat lobster.
- You know, here's a list of stuff that's
- safe, and then they throw that in there. It just
- throws a monkey wrench into the whole thing.
- MS. HALVERSON: Okay.
- 17 A PARTICIPANT: Is there any others?
- 18 Then I've got to read it real careful.
- 19 A PARTICIPANT: Like a P.S.
- 20 (Laughter.)
- 21 A PARTICIPANT: By the way.
- 22 MS. HALVERSON: Okay, let's again focus

- on the advice regarding canned tuna here. What
- 2 do you think of this advice regarding canned
- 3 tuna?
- A PARTICIPANT: I liked it because I
- think it pretty much says the same thing as all
- 6 the others, but it just, I liked the way it was
- 7 phrased.
- MS. HALVERSON: Okay, and what was it
- g about the way it was phrased that you liked,
- 10 Kathy?
- A PARTICIPANT: I think it started out
- that, more positive, like, canned tuna up to that
- many, you could have, and it was like there are
- 14 no limits for all others as part of a balanced
- 15 diet. So it's like it brought in other people
- 16 than just pregnant people.
- MS. HALVERSON: Okay. How about that
- 18 particular factor. Did all of them bring in
- 19 people other than pregnant women? Or was it just
- 20 this one, do you remember?
- 21 A PARTICIPANT: I don't remember that
- 22 the others did.

- MS. HALVERSON: Okay.
- A PARTICIPANT: I don't think it did.
- MS. HALVERSON: Okay.
- A PARTICIPANT: There would be
- different between pregnant, and pregnant and
- 6 nursing.
- 7 MS. HALVERSON: Okay. How about
- 8 including people other than pregnant women in the
- g advice. Do you like that, or not?
- 10 A PARTICIPANT: Well, I think if you
- 11 have some medical condition, that you're
- sensitive to mercury, that you'd want to know
- 13 about it.
- MS. HALVERSON: Okay.
- A PARTICIPANT: It just somehow made me
- 16 think that it was safer.
- MS. HALVERSON: Okay.
- 18 · A PARTICIPANT: It's like, well, okay,
- it listed this one but not the others, then it
- 20 must be a secret.
- 21 MS. HALVERSON: Okay. So when we think
- 22 about which fish are high in mercury, from this

- fish safe eating guideline, which ones would you
- 2 say?
- A PARTICIPANT: Ocean fish. High in
- 4 mercury?
- 5 MS. HALVERSON: Ocean fish? Okay. And
- 6 how about low in mercury?
- 7 A PARTICIPANT: Fresh water.
- 8 MS. HALVERSON: Fresh water fish?
- 9 A PARTICIPANT: Um-hmm, you know,
- 10 raised, farm fish.
- 11 MS. HALVERSON: Okay. How about other
- 12 kinds of fish that aren't listed here?
- 13 A PARTICIPANT: That makes me think
- 14 they just haven't got around to testing them yet.
- 15 (Laughter.)
- 16 (Simultaneous discussion.)
- A PARTICIPANT: Maybe nothing, maybe
- those other fish they don't mention here don't
- 19 have the volume in sales like the other fish do.
- There are some exotic fishes out there
- 21 that only certain people would buy to eat them,
- 22 you know. It's like a puff fish, you know? Those

- things are poison to begin with.
- MS. HALVERSON: Okay. Carol, you were
- 3 saying something, and I didn't hear it, about
- 4 fish low in mercury.
- A PARTICIPANT: No, I only asked which
- fish were high in mercury.
- MS. HALVERSON: Okay. All right. And
- 8 which fish are high in mercury to you?
- 9 A PARTICIPANT: Ocean fish.
- 10 MS. HALVERSON: Okay. And how about
- 11 low in mercury?
- A PARTICIPANT: Low in mercury,
- 13 American favorites. No mercury, the farm raised
- 14 fish.
- MS. HALVERSON: Okay. And how about --
- A PARTICIPANT: But what if you go out
- 17 to dinner, like, say, you can afford to go out
- dinner once a week, and you want to have seafood,
- 19 you don't really know, you want to have something
- 20 other than flounder or scallops.
- MS. HALVERSON: Okay.
- A PARTICIPANT: You want something more

- 1 exotic.
- MS. HALVERSON: All right. I am a
- 3 pregnant woman, and I love mahi-mahi.
- A PARTICIPANT: Don't know. It's not
- 5 on here.
- MS. HALVERSON: Okay. Can I order it?
- .7 Dr. Kathy, can I order this?
- 8 (Simultaneous discussion.)
- 9 A PARTICIPANT: -- like you know,
- you're not sure if it's a fresh fish or an ocean
- fish, and you don't know what category it falls
- 12 into.
- MS. HALVERSON: Okay.
- 14 A PARTICIPANT: Or eat something that's
- 15 familiar.
- 16 (Laughter.)
- A PARTICIPANT: Don't take a chance.
- A PARTICIPANT: Uh-huh.
- A PARTICIPANT: That's like ordering
- something like this, or something like with Table
- 21 1 with a list of a number of different varieties.
- A PARTICIPANT: But to do that, there's

- over 3,000 different types of fish out there. You
- 2 could go to college and learn your fishes, I
- 3 guess.
- A PARTICIPANT: Well, to be on the safe
- 5 side, I'd go ahead and pick from one of those --
- A PARTICIPANT: One that you know.
- 7 A PARTICIPANT: -- yeah, right, that I
- 8 would know that would be okay rather than --
- 9 A PARTICIPANT: Now me, being a
- 10 pregnant woman, I could choose all those -- no, I
- 11 couldn't.
- MS. HALVERSON: Okay. How do you think
- you, personally, would factor this information
- in, in any of these examples? How would you
- factor that in, in terms of making decisions
- 16 about what fish to eat or not eat, from what
- 17 we've read today?
- 18 A PARTICIPANT: Even if you were not
- 19 pregnant, you would still not eat as much of the
- 20 high risk fishes.
- MS. HALVERSON: Okay.
- 22 A PARTICIPANT: I've had swordfish

```
1 before --
```

- A PARTICIPANT: Um-hmm.
- A PARTICIPANT: -- well, I'm not
- 4 planning on having it again --
- 5 MS. HALVERSON: Okay.
- A PARTICIPANT: -- after --
- 7 MS. HALVERSON: Really?
- 8 A PARTICIPANT: -- fresh fish company
- 9 don't have their swordfish skewers.
- 10 MS. HALVERSON: Okay, so even though it
- 11 hasn't said anything about non-pregnant women --
- 12 A PARTICIPANT: Right.
- MS. HALVERSON: -- you would not eat
- 14 something off of that --
- 15 A PARTICIPANT: No, because I would
- 16 figure it wouldn't be healthy for a non-pregnant
- 17 person either.
- A PARTICIPANT: Yeah, but it's like,
- why would it apply to them and not to others? I
- 20 mean, it would harm us too. That's how I see it.
- MS. HALVERSON: Okay. All right. How
- 22 about canned tuna?

- 1 A PARTICIPANT: Gee, I don't think I'm
- 2 going to eat tuna.
- A PARTICIPANT: It's a tricky group. I
- 4 don't think canned tuna has --
- 5 (Simultaneous discussion.)
- A PARTICIPANT: It wouldn't change it.
- 7 A PARTICIPANT: Yeah.
- 8 MS. HALVERSON: Okay.
- 9 A PARTICIPANT: I don't eat tuna all
- that often anyhow, so for tuna, maybe have a tuna
- 11 sandwich once every two months.
- MS. HALVERSON: Okay. How important do
- you think it is for pregnant women to eat fish?
- 14 A PARTICIPANT: I don't think --
- 15 A PARTICIPANT: As far as vitamins and
- 16 minerals, that's something that's always to be
- 17 concerned about when one is pregnant.
- 18 A PARTICIPANT: Or maybe -- I'm sorry
- 19 --
- 20 A PARTICIPANT: Go ahead.
- 21 A PARTICIPANT: -- maybe it's not all
- 22 that important. There's other type of dietary

- things out there, vitamins, beef, pork, different
- 2 types of other, and then you can also buy
- 3 vitamins over the counter. This will supply the
- 4 needed vitamins to do that. Because of that,
- 5 you'll avoid getting mercury in your body.
- A PARTICIPANT: There are artificial
- 7 supplements you can take while you're pregnant.
- 8 A PARTICIPANT: Most pregnant women I
- 9 know, they have them on a type of vitamin anyway.
- MS. HALVERSON: Okay. Now, let's look
- 11 at consumers more broadly, like those of us
- 12 around the table. I don't know about you, but I
- heard when I was a kid, avoid bacon, because it
- has carcinogens, or limit your intake of bacon,
 - 15 limit your caffeine.
 - 16 They kept saying, well, fish is good
 - 17 for you. It's got all the good Omega-3 fatty
 - 18 acids, and it's leaner, and now I hear all this
 - 19 about mercury.
 - 20 How do you factor that information into
 - 21 your whole understanding of what the risks and
 - 22 benefits are of eating something like fish?

- 1 A PARTICIPANT: I think eating anything
- 2 in moderation is okay.
- A PARTICIPANT: Yeah.
- 4 A PARTICIPANT: Once you start
- 5 overeating too many eggs, you have your
- 6 cholesterol. You eat too many hamburgers, you
- 7 might get that mad cow disease. Anything in
- 8 moderation, even eating a can of tuna once a day
- 9 won't hurt you. You've got to everything in
- 10 moderation.
- 11 A PARTICIPANT: I would say in
- moderation. Like I said, I hardly eat fish at
- 13 all.
- 14 (End side one; begin side two.)
- MS. HALVERSON: Elizabeth?
- 16 A PARTICIPANT: I would rather eat fish
- 17 than meat.
- A PARTICIPANT: Yeah.
- 19 A PARTICIPANT: Just because of what I
- 20 heard recently, of how they were killing the
- 21 cows, and then using the scraps to feed the cows.
- The cows were eating cows. Now you tell me there

- 1 was an epidemic, I don't what disease was going
- on. It was in London, and --
- A PARTICIPANT: Mad cow.
- A PARTICIPANT: -- did you see that? I
- 5 just almost died, too, ugh. So I think fish
- 6 would be a safer way to go, but see, it's
- 7 expensive.
- MS. HALVERSON: Okay, Tim?
- 9 A PARTICIPANT: Yeah, I would also
- 10 weigh what other cultures eat. There's other
- 11 cultures besides the United States that eat a lot
- of fish, and sometimes they tend to be healthier
- 13 than we are. They don't have the big beef
- industry lobby, and chicken lobby. So I take it
- all with a grain of salt.
- MS, HALVERSON: Okay.
- 17 A PARTICIPANT: Saltwater fish.
- A PARTICIPANT: If it's, I think,
- 19 within moderation, and if it's not much of a
- 20 concern that there are other vitamins in health
- 21 food stores out there, you know, supplements and
- 22 things like that --

```
1 MS. HALVERSON: Okay.
```

- A PARTICIPANT: -- that you can
- 3 substitute for that.
- 4 MS. HALVERSON: Based upon the
- 5 discussions that we've been having tonight, what
- do you think is the most critical piece of
- 7 information that should be provided to consumers
- 8 about this whole topic?
- 9 A PARTICIPANT: Which fish to avoid.
- 10 MS. HALVERSON: Which fish to avoid?
- A PARTICIPANT: Yeah.
- MS. HALVERSON: Is that for everyone?
- 13 Or for pregnant women?
- 14 A PARTICIPANT: No. For pregnant
- 15 women, but for everyone, too.
- A PARTICIPANT: Um-hmm.
- 17 A PARTICIPANT: Because I don't eat
- 18 these kind of fish anyway, but now I won't.
- MS. HALVERSON: Okay. Do you think,
- 20 how about the rest of you, do you think it's more
- important to emphasize those four fish to avoid,
- 22 or that pregnant women should be aware of this

. 80

```
issue? How about those two issues?
```

- A PARTICIPANT: Well, I think it's kind
- 3 of unjust in a way, because it also mentions
- 4 tuna, and like what Tim says, the tuna industry
- is so humongous that they're able to lobby all
- 6 this.
- Now, you have these other four fishes,
- 8 and it's like, I know they're no good for you, in
- 9 a way, but nonetheless, they don't have the same
- 10 lobbying clout like the other ones do.
- I think if that's the case, they should
- 12 put tuna somewhere and say, look, you know, this
- is also very bad for you.
- 14 MS. HALVERSON: Okay. How about the
- 15 rest of you? Harry was saying the most important
- 16 message is, these four fish. Is that the most
- important message to the rest of you, as well?
- A PARTICIPANT: I think it's very
- important, but I kind of think maybe the fact
- 20 that they want to target pregnant women, or to-
- 21 be-pregnant women, that type, because if, there
- 22 might be other fish that might affect them as

- 1 well.
- These are definitely the ones to stay
- 3 away from, however, they need more concern than I
- 4 need, by the message I'm getting from here.
- 5 MS. HALVERSON: Okay.
- A PARTICIPANT: Um-hmm.
- 7 A PARTICIPANT: I don't know if you're
- 8 going to go there tonight or not, but how you're
- 9 get the information across. You have a little
- 10 can about this big. Are you going to put all
- this on a little can with a big fish on it?
- 12 MS. HALVERSON: How should this
- information get to consumers?
- 14 A PARTICIPANT: Gee. I think doctor's
- 15 offices.
- MS. HALVERSON: Doctor's offices?
- 17 Okay
- A PARTICIPANT: Definitely.
- A PARTICIPANT: That's true.
- 20 A PARTICIPANT: I think if somebody
- 21 puts it in the store.
- A PARTICIPANT: Yes, so do I.

```
1 (Simultaneous discussion.)
```

- 2 A PARTICIPANT: Billboard.
- MS. HALVERSON: Um-hmm.
- A PARTICIPANT: Magazines,
- 5 publications.
- 6 MS. HALVERSON: Okay. All right. So,
- 7 let's see, Harry, so you're at Julia's Fish
- 8 Market, and she's got this big thing about
- 9 mercury in her fish. How do you feel about that?
- 10 A PARTICIPANT: Well, yeah, that's
- 11 true. Well, the wording would have to be careful,
- 12 of course.
- MS. HALVERSON: Okay. And how would --
- 14 A PARTICIPANT: I would still want to
- tell pregnant women that these are high sources
- of mercury, and even if you're not pregnant, you
- 17 can still see that they're high sources.
- 18 A PARTICIPANT: But you go to Julia's
- 19 Market, and the last six months, she's been stuck
- 20 with king fish in her cooler, she's certainly not
- 21 going to buy more.
- 22 (Laughter.)

- A PARTICIPANT: It doesn't scare me
- 2 away as much to see something posted, though.
- A PARTICIPANT: Yeah.
- A PARTICIPANT: I'd rather have some
- 5 discretion on it.
- A PARTICIPANT: I was going to say,
- 7 even for some of the different restaurants around
- 8 the area, at least I would feel like, as a
- 9 customer, if I'm going in and paying for a
- dinner, and paying that much money, I would want,
- 11 you know, I would feel like they are being honest
- with me, that they care about what's going inside
- 13 your body. They want us to know if it's --
- 14 A PARTICIPANT: They want us to know
- 15 that information.
- A PARTICIPANT: What about liquor? You
- 17 go to a liquor store, you know if you drink all
- the liquors, it eventually will kill you, you
- 19 know what I mean? But you know, people still do
- 20 it.

.....

- Now what about a stupid old can of
- tuna, I would probably buy it, you know.

```
1 A PARTICIPANT: If restaurants served
```

- 2 seafoods or different things like that, were
- 3 being shut down because of something like that
- 4 going on, then it would be like, wait a minute,
- 5 you know, if it was in the newspaper or on the
- 6 radio or something like that, then I'd think
- 7 twice.
- A PARTICIPANT: Yeah, it's up to you to
- 9 decide.
- 10 MS. HALVERSON: I have another comment
- 11 here.
- 12 A PARTICIPANT: Yes.
- A PARTICIPANT: Also, there's the whole
- 14 liability question if they know it might be bad
- for you. Shouldn't, don't they have to tell you?
- 16 MS. HALVERSON: All right. I'd like to
- 17 ask you all to wait here. I'm going to run next
- 18 door and talk with my colleagues and see if there
- is anything that I should have been asking you
- 20 that I've forgotten to ask you.
- 21 A PARTICIPANT: Is there a restroom
- 22 around here?

- 1 MS. HALVERSON: Yes. And the rest of
- 2 you, if you would pass around Example Three, then
- 3 Example Four, then Example Five, while I'm gone.
- A PARTICIPANT: Can you get some fish
- 5 sticks?
- 6 (Laughter.)
- 7 MS. HALVERSON: Actually, I was going
- 8 to bring in lobster tamale.
- 9 A PARTICIPANT: Oh, yes.
- 10 A PARTICIPANT: Sure, no problem.
- 11 (Moderator leaves the room.)
- A PARTICIPANT: Oh, that's --
- 13 (Simultaneous discussion.)
- A PARTICIPANT: I'll remember that.
- A PARTICIPANT: No, it's been on the
- 16 news for 20 years about those tunas, you know.
- 17 A PARTICIPANT: I knew about them.
- 18 A PARTICIPANT: It's been so long I
- 19 forgot about it. I was at the age, I didn't care
- 20 --
- 21 A PARTICIPANT: I know.
- A PARTICIPANT: I'm 40, you know.

```
A PARTICIPANT: I know, I'm 43, so I
```

- 2 can remember, you know, it was how babies were
- 3 being born --
- A PARTICIPANT: I still eat tuna.
- A PARTICIPANT: -- totally deformed,
- 6 yeah.
- 7 A PARTICIPANT: I eat a lot of tuna.
- A PARTICIPANT: I like sword fish. I
- go out to restaurants for that.
- 10 A PARTICIPANT: I'm only going to have
- 11 it once a year.
- 12 A PARTICIPANT: Yeah.
- A PARTICIPANT: Yeah.
- 14 A PARTICIPANT: I don't know. I don't
- think the amount of that is significant, once or
- twice, you know. I just think if it was a staple
- 17 diet of yours.
- A PARTICIPANT: Right.
- 19 A PARTICIPANT: Just like they said,
- though, anything to get you. I remember 20 years
- 21 ago them saying, don't eat this, or whatever, and
- 22 now, it's for vitamins. Twenty years ago they

- were saying, don't do it, now they're saying, oh,
- 2 it's okay to do that. So it's like there's
- 3 always enough information.
- A PARTICIPANT: Don't breathe the air;
- 5 don't drink the water.
- A PARTICIPANT: Yeah, you know, it's
- 7 like pork was supposed to be bad for you.
- A PARTICIPANT: Um-hmm.
- 9 A PARTICIPANT: Back in the biblical
- 10 days, don't eat pork. It said in the bible. Eat
- 11 fish on Fridays.
- 12 A PARTICIPANT: I haven't heard that
- 13 for a long time.
- 14 A PARTICIPANT: So I don't know. All I
- 15 know is, I eat, I eat.
- 16 A PARTICIPANT: See food diet.
- 17 A PARTICIPANT: Well, this is
- 18 interesting, because now I can enlighten my
- 19 younger daughter, because she has children. I
- 20 have two girls and a son, and no one wants to let
- 21 me be a grandma.
- A PARTICIPANT: Twenty-six and twenty.

- But in case, I'll let her know about the fish.
- 2 It's important. If I would eat anything, I would
- 3 rather eat fish, so that's why this is really
- 4 interesting to me, if I could afford it. It's
- 5 just too expensive. That halibut is something
- 6 else.
- 7 A PARTICIPANT: Oh, no kidding.
- A PARTICIPANT: All that other stuff
- 9 like sword fish and octopus, stuff, I'm just not
- 10 one to touch things like that. I'm not brave.
- 11 (Simultaneous discussion and laughter.)
- 12 (Moderator returns to room.)
- MS. HALVERSON: I have a question, and
- 14 I'd like to exclude Ray and Harry from the
- 15 answers. How does mercury get into fish?
- A PARTICIPANT: Through the
- 17 environment.
- A PARTICIPANT: I would say through the
- 19 environment.
- 20 A PARTICIPANT: Probably from what the
- 21 eat.
- MS. HALVERSON: From what they eat?

- 1 A PARTICIPANT: Um-hmm.
- MS. HALVERSON: From the environment.
- 3 Where does the mercury come from?
- A PARTICIPANT: Run offs?
- 5 MS. HALVERSON: The what?
- A PARTICIPANT: Run offs from industry.
- 7 A PARTICIPANT: Umm.
- 8 MS. HALVERSON: Just a minute, Ray,
- 9 just a minute, Harry, just a minute.
- 10 A PARTICIPANT: Chemical plants.
- MS. HALVERSON: Okay. Chemical plants.
- 12 Run off.
- A PARTICIPANT: Or was it always there?
- 14 A PARTICIPANT: Chemical plants,
- industries, that's what I see.
- 16 A PARTICIPANT: Fish that have it
- 17 deteriorate.
- MS. HALVERSON: Pardon?
- 19 A PARTICIPANT: Fish that have it
- 20 deteriorate.
- MS. HALVERSON: Okay. All right, Ray,
- 22 Harry, anything?

- A PARTICIPANT: It comes from the salt
- 2 in the ocean.
- MS. HALVERSON: The salt in the ocean?
- A PARTICIPANT: Yeah, it's a naturally
- 5 occurring thing.
- A PARTICIPANT: Yeah.
- 7 A PARTICIPANT: But unless it comes
- 8 from -- mercury is used as a solvent for
- 9 different things, and if you don't collect all
- 10 your solvent back, you know, some of it leaks
- 11 through the filtering system.
- A PARTICIPANT: Right.
- 13 MS. HALVERSON: Okay. How would you
- 14 reduce mercury in fish? It's obviously a
- 15 problem.
- 16 A PARTICIPANT: You'd have to stop the
- 17 source, and then you'd have to catch all the fish
- 18 that have it.
- 19 (Simultaneous discussion.)
- 20 MS. HALVERSON: Okay, hold on, one at a
- 21 time.
- A PARTICIPANT: Is when you, there's no

- 1 way you can really reduce it, in my opinion.
- 2 There are certain ways you can do it to minimize
- 3 or maybe lower it somewhat, but it always will
- 4 still be present in fish. I think when you
- 5 process the fish, that's when you have to remove
- 6 it, unless it's absorbed into body fat or
- 7 whatever, I guess --
- A PARTICIPANT: Water soluble.
- 9 A PARTICIPANT: -- yeah.
- 10 A PARTICIPANT: Like the canned tuna
- 11 had far less in it --
- A PARTICIPANT: Right. Processing.
- 13 A PARTICIPANT: -- than fresh or
- 14 frozen, so there has to be something in the
- 15 processing.
- 16 A PARTICIPANT: And the other fish,
- 17 like sword fish and so forth, don't you eat big
- 18 pieces of it?
- A PARTICIPANT: Yeah.
- A PARTICIPANT: Filet.
- 21 A PARTICIPANT: So it's not like ground
- 22 up, you know. But I really don't know.

- A PARTICIPANT: I would think, like, up
- 2 in Alaska, and just think about fish hatcheries
- 3 or things like that, before they ship it out to
- 4 the restaurant, whatever, I would think that
- there would be a process of elimination, if, you
- 6 know, I don't know, if you catch it.
- 7 You know that it has mercury in it
- 8 ahead of time, and there is a process of going
- 9 through it to get rid of it, or something to do,
- 10 then --
- MS. HALVERSON: Okay. Where would you
- think you would find more mercury? In commercial
- fish or fish that you would catch yourself.
- 14 A PARTICIPANT: If you caught it in the
- wrong stream, you could get a real big dose, like
- 16 if you caught it just downstream from a mine
- 17 that's leaking, you'd get a big dose that way.
- MS. HALVERSON: Okay. So how do you,
- 19 as a consumer, decide, this is pretty safe fish
- 20 to eat; maybe I shouldn't eat this stuff? How do
- 21 you decide that?
- A PARTICIPANT: It's a chance you take.

```
A PARTICIPANT: You don't worry. You
```

- just rely on, you have to rely on the --
- A PARTICIPANT: I guess you could take
- a tester with you and put the fish in it, see how
- 5 much, oh, 14%, throw it away.
- 6 (Laughter.)
- 7 A PARTICIPANT: We're hoping the FDA
- 8 will do that for us.
- 9 A PARTICIPANT: Right.
- 10 (Simultaneous discussion.)
- MS. HALVERSON: So, in terms of trying
- to decide, as a pregnant woman, how much fish you
- 13 can eat, let's say you really liked fish, it was
- 14 your major source of protein, how would you
- 15 decide how much tuna to eat, how much of this
- 16 low-in-mercury, how much of the high-in-mercury?
- 17 How would you make decisions about how much of
- 18 each of those to eat?
- 19 A PARTICIPANT: I would need more
- 20 information on it. I don't think what we saw
- 21 tonight gives you enough to really base your diet
- on, or to not have it, actually.

- I don't know, more, again, just more
- information, whether it's at the store, or if
- there's a push in a magazine or something for it.
- A PARTICIPANT: I would probably want
- 5 more symptoms as to, you know, like a cold or
- 6 something like that, in regard to symptoms like
- 7 that, as to warning things to look for, something
- 8 like that.
- A PARTICIPANT: Once you start
- 10 experiencing mercury poisoning symptoms, it's
- 11 pretty late.
- MS. HALVERSON: One of the things that
- is happening is that EPA is trying to regulate
- 14 the amount of smoke stack emissions, because
- . 15 apparently a lot of mercury in the atmosphere
 - 16 comes from that. So that's one thing that's
 - 17 going on.
 - In terms of how you personally use that
 - 19 information, that's what they're trying to get
 - at, how they provide it to you so that you can
 - 21 make wise choices in what you eat.
 - A PARTICIPANT: I would be nice to know

```
1 specific amounts in each type of fish.
```

- A PARTICIPANT: How much in an
- 3 eight-ounce fish?
- 4 MS. HALVERSON: How much is an
- 5 eight-ounce serving? Show me with your hands how
- 6 much. On the count of three, everybody put your
- 7 hands up with an eight-ounce serving. One, two
- 8 three.
- 9 (Simultaneous discussion.)
- MS. HALVERSON: When they say
- 11 eight-ounce serving, does that mean something to
- 12 you? Like when you go, let's say you go to Red
- 13 Lobster, and you order sword fish, one of our
- four on the list there. What's an eight-ounce
- 15 serving of sword fish? Is that what they serve
- 16 you?
- A PARTICIPANT: Yeah, I think --
- 18 (Simultaneous discussion.)
- 19 A PARTICIPANT: Is that before cooked
- 20 weight?
- A PARTICIPANT: I worked in a
- restaurant. They weigh it before.

- MS. HALVERSON: Okay. So a six-ounce
- 2 -- do they tell you, is it pre-cooked weight in a
- 3 restaurant? Do they tell you that?
- A PARTICIPANT: No. It's always pre-
- 5 cooked weight.
- MS. HALVERSON: Okay. How about three
- 7 ounces of tuna fish? How much is that?
- 8 A PARTICIPANT: One small can.
- 9 MS. HALVERSON: A small can?
- A PARTICIPANT: Um-hmm.
- MS. HALVERSON: Okay. All right. I
- want to thank all of you for being here, and
- please feel free to pick up all your fish out
- 14 there.
- 15 (Laughter.)
- A PARTICIPANT: (Indiscernible) lobster
- 17 tamale.
- 18 (Laughter.)
- MS. HALVERSON: And you did a great job
- of collecting all my things. I appreciate that.
- 21 Yes, thank you for the tuna.
- 22 (Simultaneous discussion.)

```
MS. HALVERSON: If you go out to the
1
     front, I think they have something for you there.
2
                A PARTICIPANT: Thank you.
3
                MS. HALVERSON:
                                 Thank you.
4
                A PARTICIPANT: Well, we'll be talking
5
      about this for awhile at home.
 6
                (Simultaneous discussion.)
 7
                                 It's all about
                A PARTICIPANT:
 8
 9
      pregnancy.
                A PARTICIPANT: It's all about mercury.
10
                (Whereupon the taping was concluded.)
11
12
13
14
15
16
17
18
19
20
21
```

į.

1.	CERTIFICATE OF TRANSCRIBER
2	I, Helen M. Collins, Tape
3	Transcriptionist, do hereby certify that the
4	foregoing pages are a true and accurate
5	transcription, made by me to the best of my
6	ability, from a copy of a tape recording of
7	Macro, Methyl Mercury, Denver, October 17, 2000
8	6:00 p.m.; that any inaudible or unintelligible
9	tape segments are parenthetically indicated
10	within the body of the transcript; that the
11	proper designations of speakers were not always
12	clear from the recording; and that I am neither
13	counsel for, related to, nor employed by any of
14	the parties to the action in which this
15	proceeding took place; and, further, that I am
16	not a relative or employee of any attorney or
17	counsel employed by the parties thereto, nor
18	financially or otherwise interested in the
19	outcome of the action.
20	An an - M
21 -	Aden 12 also
22	HELEN M. COLLINS Transcriber