

## **HINTS Mod. #5 Interviews: Round 2 Summary of Findings and Recommendations**

From September 9 through September 11, 2003, Westat conducted nine cognitive interviews with volunteers to test new questions under consideration for the HINTS instrument. The new questions covered topics on: knowledge of health recommendations, reactions to recommendations, and level of physical activity. The interviews adhered to a structured protocol prepared by Westat and NCI staff prior to the interviews. Questions from the 2003 HINTS instrument were included in the interview to provide context for the new questions. The cognitive interviews focused on the detection of any potential sources of measurement error in the new questions.

Two cognitive interviewers who had previous experience with the project conducted the interviews. All interviews were tape recorded and interviewers took detailed notes on all comprehension and interpretation issues that emerged. Interviews generally lasted about one hour, and participants were paid 45 dollars. The table below provides a simple demographic description of each participant.

AGE	GENDER	RACE	EDUCATION
19	Male	White	High School Graduate
26	Female	Black	High School Graduate
28	Male	Black	High School Graduate
28	Female	Asian	College Graduate
44	Female	White	Some College/Voc.Ed.
51	Female	Amer. Indian	Some College/Voc.Ed.
60	Male	White	High School Graduate
63	Female	Hispanic	Some College/Voc.Ed.
70	Female	White	High School Graduate

In this document we summarize the interview findings with respect to the new questions under consideration, and offer recommendations for revision.

**HC-26. Here are some ways people use the Internet. Some people have done these things, but other people have not. In the past 12 months, have you done the following things while using the Internet?**

	<u>YES</u>	<u>NO</u>
a. Bought medicine or vitamins on-line? .....	1	2
b. Participated in an on-line support group for people with a similar health or medical issue? .....	1	2
c. Used e-mail or the Internet to communicate with a doctor or a doctor's office? .....	1	2
d. Looked for health or medical information?	1	2
<b>e. Looked for information about physical activity or exercise? [NEW]</b>	1	2
<b>f. Looked for advice or programs for diet or nutrition? [NEW]</b>	1	2
<b>g. Looked for information about sunscreens? [NEW]</b>	1	2
h. Done anything else health-related on the Internet? (SPECIFY)_____	1	2

Only items e.-g. in this series are new. These items seemed to work well. Several participants reported they had looked for information on physical activity and/or nutrition, and when probed they gave appropriate explanations. No one had looked for sunscreen information, however.

Some redundancy was observed with item d. (health or medical information). In other words, a couple of respondents reported they looked for “health or medical information” which was related to physical activity and/or nutrition.

**Recommendation:** To avoid the redundancy issue, move item d. after item g., and reword as: “Looked for *other* health or medical information.”

Now we'd like to know what recommendations you may have heard regarding physical activity, nutrition, and protecting oneself from the sun.

**KR1. What is the recommended minimum number of days per week an average adult should be physically active to achieve a health benefit?**

\_\_\_\_\_ (number of days)

Respondents readily answered this item, and we observed no significant problems. Just over half the respondents said that the recommended minimum number of days per week that an average adult should be physically active is three days. One person acknowledged that his/her answer was a guess.

**Recommendation:** If you don't mind having respondents guessing in response to the Knowledge of Recommendations items, then leave as is. If you want to minimize guessing, consider revising the introductory text:

Now we'd like to know what recommendations you may have heard regarding physical activity, nutrition, and protecting oneself from the sun. *If you do not know the answer to any of these questions, let me know.*

**KR2. What is the recommended minimum length of time an average adult needs to be physically active throughout a typical day in order to achieve a health benefit?**

\_\_\_\_\_ (number of minutes)

No two respondents gave the same answer to this question. Responses varied from "don't know" to 20 minutes, 30 minutes, 40 minutes, etc., up to "9 to 10 hours."

Despite the variation in responses, most respondents interpreted "recommended minimum length of time" in a uniform way. Respondents commented that "recommended minimum" meant things like: "just enough to get by," "you have to do that many minutes or you will not achieve your health benefit," "just enough to work," and "more is OK, but not less." One respondent commented that "recommended minimum meant a conservative amount; something that was safe for your body, but also at a level that was possible to achieve.

Respondents interpreted "physically active" broadly to be almost anything that was not sitting, lying down or standing: "yard work," "cleaning house," "taking the stairs rather than the elevator," "walking," "parking far away rather than at the door," "getting out of the house," "getting exercise," "running," "moving," "biking," "weight lifting," "increase blood flow," "golfing," "aerobics," "not sitting around all day," "not necessarily working out."

One respondent thought that the question referred to activities strictly outside of work. The person who answered “9 to 10 hours” said he did not really understand what “physical activity” this question was asking about.

**Recommendation:** The two interpretation problems we observed seem highly idiosyncratic and thus we don’t think they suggest major problems. But we wonder if the phrase “throughout a typical day” contributed to the confusion expressed by the person answering “9 to 10 hours.” Is that phrasing necessary? If not, consider:

*What is the recommended minimum length of time an average adult needs to be physically active in order to achieve a health benefit?*

**KR3. I’m going to read you two statements people might make about physical activity. For each, just tell me if you think it’s true, false, or you don’t know. The first statement is: One must exercise *vigorously* to achieve a health benefit. (Would you say that is true, false, or you don’t know.)**

<b>True</b>	<b>1</b>
<b>False</b>	<b>2</b>
<b>Don’t know</b>	<b>3</b>

There was plenty of variability in responses to this item. For the most part, participants had a consistent interpretation of “to exercise vigorously.” For example, most respondents said that vigorous meant “pushing yourself,” “trying to go beyond your ability,” “stressing the physical exertion of the person,” “aggressive exercise,” “with everything you have,” “sweating like crazy,” “raise one’s heart rate to the point of being out of breath.” One respondent commented that in order to be vigorous, it cannot be part of a routine.

**Recommendation:** Unless respondents’ interpretations of “exercise vigorously” are at odds with your intentions, we see no need to revise this item.

**KR4. You can achieve some health benefit by doing moderate activities like walking. (Would you say that is true, false, or you don’t know.)**

<b>True</b>	<b>1</b>
<b>False</b>	<b>2</b>
<b>Don’t know</b>	<b>3</b>

Almost all the respondents could answer this question without difficulty and could relate to the concept of “moderate” exercise. Furthermore, all respondents except one said that this was a true statement. One respondent said that he/she could not answer the question because it was not specific enough. The question did not state the kind of walking (apparently “moderate” was too vague).

Examples of “moderate” exercise that respondents named include: bowling, dancing, walking half a mile, swimming, stretches, yoga, light jogging. Other respondents described moderate in terms of level of effort: “not really pushing yourself -- getting by,” “use some energy, but not overdo it,” “activities where you do not sweat profusely, still comfortable.”

One person gave seemingly contradictory answers to KR3 and KR4 (i.e., answering “true” for both), but explained that KR4 is true because “moderate activities may be all that overweight people can do.” She seemed to be thinking of an average person for KR3, yet not for KR4.

**Recommendation:** You might consider rewording these to focus on recommendations for the average adult, as is true for KR1 and KR2. As is, we wonder if you’ll get enough variability in responses to KR4 for it to be analytically useful. It’s difficult to imagine why anyone would think the statement is “false.” Consider:

*KR3. The average adult must exercise vigorously to achieve a health benefit.*

*KR4. The average adult can achieve some health benefit by doing moderate activities like walking.*

**KR5. According to the current recommendation, how many fruits and vegetables should an adult eat per day?**

\_\_\_\_\_ (insert number of fruits and vegetables per day)

Seven of nine answered “4 or 5 per day”; one respondent said “3” and one said “8.” A few respondents (3) answered separately for each (i.e., X number of fruit servings and X number of vegetable servings).

One respondent initially thought that KR5 was asking for her opinion and not something from a source outside of herself. Her initial response was “As many as they can eat.” She reacted to the term “current recommendation,” describing it as “a blank term” that doesn’t communicate a concrete concept. She suggested alternative wording like: “based on what you’ve heard...” would have been more effective at making her think of a recommendation she’s aware of, rather than her opinion.

This comment illustrates an issue that has emerged throughout these interviews (including Round 1). When asked to report the “recommendations” they know about, people often respond with what they believe or practice themselves. For example, when probed about her answers to **KR1** and **KR2**, one respondent said “This is just my theory. I put this into practice and it makes me feel good.” This respondent also said that “recommendations” are made for the “average” person and needed to be scaled or tailored to one’s actual age and other personal characteristics. So, when this respondent

answered about recommendations, she gave a version that was tailored to herself. So despite the lack of obvious comprehension problems, some respondents view whatever they currently do or believe in as the recommendations they have heard or seen.

**Recommendation:** Allow respondents to report separately for fruits and vegetables, if they wish. Otherwise, it will be necessary to provide language for the interviewers to use when clarifying that a single total for both fruits and vegetables is requested. Also, it would be nice if the term “recommendation” could be made more concrete for respondents (in this, as well as other questions in this section), but we do not know a solid solution for this. One possibility might be to replace the term with something like: “*Based on what you’ve heard or seen...*”. We suggest exploring this possibility in the next round of interviews. For example, KR5 could be reworded as:

*Based on what you’ve heard or seen, how many fruits and vegetables should an adult eat per day?*

**KR6. What is the current recommendation for the minimum Sun Protection Factor, or SPF, that should be used in a sunscreen to protect your skin?**

\_\_\_\_\_ (insert number of SPF)

This question elicited no significant issues or problems. Answers ranged from “12” to “35,” with three “don’t knows” and three “15’s.”

**Recommendation:** Leave item as is.

**KR7. As far as you know, does exercise increase or decrease the chances of getting some types of cancer, or does it not make much difference?**

- |  |          |
|--|----------|
| <b>Increases chances of getting some types of cancer</b> | <b>1</b> |
| <b>Decreases chances of getting some types of cancer</b> | <b>2</b> |
| <b>Doesn’t make much difference</b>                      | <b>3</b> |

There was no significant issue observed with this question. One respondent who had been diagnosed with a precondition to breast cancer said that whether or not exercise made a difference with regards to getting cancer depended on “where you are in your illness. Breast cancer groups were told not to exercise a lot.” This respondent nevertheless chose the “decreases chances” alternative.

**Recommendation:** Leave as is.

**KR8. Does eating a diet high in fruits and vegetables and low in fat increase or decrease the chances of getting some types of cancer, or does it not make much difference?**

- |  |          |
|--|----------|
| <b>Increases chances of getting some types of cancer</b> | <b>1</b> |
| <b>Decreases chances of getting some types of cancer</b> | <b>2</b> |
| <b>Doesn't make much difference</b>                      | <b>3</b> |

Two respondents said that they did not know. One of these two said that she believed that cancer came from a gene in your body. The other one said that the response categories needed to be qualified because other factors come into play and some people would get cancer regardless. But overall, the question seemed to work fine.

**Recommendation:** Leave as is.

### **Reactions to Messages (RM) Section**

**RM1. To what extent would you agree or disagree with the following statements:**

**a. There are so many different recommendations on physical activity and exercise, it's hard to know which ones to follow. Would you say you:**

- |                              |          |
|------------------------------|----------|
| <b>Strongly agree</b>        | <b>1</b> |
| <b>Somewhat agree</b>        | <b>2</b> |
| <b>Somewhat disagree</b>     | <b>3</b> |
| <b>Strongly disagree, or</b> | <b>4</b> |
| <b>You have no opinion?</b>  | <b>5</b> |

**b. There are so many different recommendations on diet and nutrition, it's hard to know which ones to follow. (Would you say you....)**

- |                              |          |
|------------------------------|----------|
| <b>Strongly agree</b>        | <b>1</b> |
| <b>Somewhat agree</b>        | <b>2</b> |
| <b>Somewhat disagree</b>     | <b>3</b> |
| <b>Strongly disagree, or</b> | <b>4</b> |
| <b>You have no opinion?</b>  | <b>5</b> |

These items did not exhibit any significant issues or problems. Comprehension seemed to be consistent and stable. One respondent confused the response scale at RM1b and answered "strongly disagree" when she really meant "strongly agree." This error was revealed when the interviewer probed on the response because it contradicted earlier responses.

**Recommendation:** Leave these items as is.

**RM1c. I am skeptical about physical activity and nutrition recommendations. (Would you say you.....)**

- |                              |          |
|------------------------------|----------|
| <b>Strongly agree</b>        | <b>1</b> |
| <b>Somewhat agree</b>        | <b>2</b> |
| <b>Somewhat disagree</b>     | <b>3</b> |
| <b>Strongly disagree, or</b> | <b>4</b> |
| <b>You have no opinion?</b>  | <b>5</b> |

One respondent had trouble with the implications of “skeptical” and could not answer the question. This respondent felt that if she said she was “skeptical” that would suggest that she doesn’t want to hear the recommendations. On the other hand, if she said she was not “skeptical” that would suggest that she believes all of the recommendations, which she does not. Another respondent chose the “no opinion” alternative after having the question read to her two or three times. She could not articulate the problem but did not like the word “skeptical.” After reasoning around the issue for a while, she eventually said that she supposes that she is “skeptical after all.”

Yet a third respondent answered “no opinion” which prompted further probing because it contradicted her earlier answers. This respondent described the following situation: “I have been meeting with a nutritionist. The nutritionist said to eat a certain way for diabetes, which does not go along with weight watcher which I have been successful with” (she has lost 25 pounds with weight watchers). This respondent was in a situation where she has to both lose weight for the diabetes and follow a particular food regime to keep her blood sugar under control. The goal of losing weight conflicts with the goal of maintaining a steady and low blood sugar count. Because of this dilemma, she chose the “no opinion” alternative.

A fourth respondent said that she was “skeptical” about some recommendations, but she knows what works for her and that is what she agrees with. This respondent elaborated that she is not swayed by new or current recommendations because she has “tried it all” and figured out what works for her. It has taken her years of trial and error to arrive at her current regime and she sees no reason to make any changes (other respondents from the previous round of interviews have expressed this too).

**Recommendation:** Making this question less absolute by adding a qualifier such as “most” or “many” might make this question easier for respondents. We believe the question would remain consistent with your intentions, so consider something like:

*I am skeptical about most physical activity and nutrition recommendations.*

**RM2. Which of the following statements best describes how you usually respond to new recommendations you may hear about physical activity or nutrition?**

- |   |          |
|---|----------|
| <b>I do not change my behavior</b>  | <b>1</b> |
| <b>I wait to hear the recommendation from other sources before I change my behavior, or</b> | <b>2</b> |
| <b>I think about changing my behavior to follow the new recommendation</b>                  | <b>3</b> |

It takes a long time to verbally administer this question (and will no doubt seem even longer when done over the phone), but in general the item seemed to work okay. One respondent expressed concern that the response categories did not really fit with the question. This respondent said that he/she would “think about changing” but only “if it made sense to me.”

**Recommendation:** Leave as is.

**RM3. In general, when do you begin paying attention to recommendations on physical activity or nutrition?**

- |  |          |
|--|----------|
| <b>As soon as you hear the recommendation from a reliable source</b>                         | <b>1</b> |
| <b>After hearing the same recommendation from more than one reliable source, or</b>          | <b>2</b> |
| <b>You don't pay attention at all to recommendations on physical activity and nutrition.</b> | <b>3</b> |

One respondent said that he/she did not like the way this question combined physical activity. He/she would pay attention to recommendations about nutrition but not physical activity. Having both of these in one question make it hard to answer.

Although not probed consistently across respondents, there was some indication that “pay attention” may have been interpreted in various ways. Sometimes it seemed that respondents interpreted it to mean: “change what I do based on ...” (i.e., as being largely redundant with RM2) and sometimes it seems to be interpreted on a more abstract level of “am I interested in, do I read about or listen to information on ...”.

**Recommendation:** The distinction between RM2 and RM3 is very subtle, and it will often not be apparent to respondents. Several respondents gave essentially the same answers to RM2 and RM3. Indeed, it seems to us that if one were to “begin paying attention” to a new recommendation, it follows that one would have to consider the possibility of changing behavior. For this reason, there may not be much value in asking both of these questions. But we suggest keeping both for the third round, and revisiting this issue later. Also, it would be ideal to ask about physical activity and nutrition separately, but we realize that may not be a viable option due to your time constraints.

**RM4. If most of your friends and family were sunbathing and getting tan, which of the following would you be more likely to do?**

- Do the same as your friends and family – Get a tan and look healthy, or** **1**
- Wear sunscreen or stay away from the sun to protect yourself against skin cancer** **2**

Three participants had difficulty comprehending the intent of this question, perhaps due to its length. One person asked if there were two or three response options – she was inclined to choose the second response (and ultimately did) but was reluctant since does not often wear sunscreen. Another person initially answered by saying “I wear sunscreen but I don’t stay out of the sun.” She had heard the second response choice as “wear sunscreen *and* stay away...”. A third respondent had trouble accepting the hypothetical nature of this question, initially answering with “my family doesn’t believe in sunbathing.” But when the interviewer read the question again, she readily chose the second response choice, since her family had taught her to stay out of the sun.

**Recommendation:** Consider shortening this question to:

*Which of the following statements best applies to you:*

*I like to get a tan and look healthy*

*I wear sunscreen or stay out of the sun to protect myself against skin cancer*

**RM5. How much would you trust information about physical activity or nutrition from [FILL SOURCE]? Would you say a lot, some, a little, or not at all? (How about from (FILL SOURCE))**

	<b>A LOT</b>	<b>SOME</b>	<b>A LITTLE</b>	<b>NOT AT ALL</b>
<b>a. A doctor or other health care professional</b>				
<b>b. Family or friends</b>				
<b>c. A health organization</b>				
<b>d. Newspapers</b>				
<b>f. Magazines</b>				
<b>g. Radio</b>				
<b>h. Internet</b>				
<b>i. Television</b>				

Respondents expressed confusion about what “a health organization” represented. Three respondents asked explicitly what type of organization “a health organization” was. One respondent assumed that a “health organization” was a research organization and another

respondent assumed that a “health organization” was a gym. Two other respondents had a vague notion that a “health organization” would have knowledge and research on health matters.

Also, this question may largely be tapping into the same views of information sources that HC-18 is (the item that asks how much they trust information about cancer from various sources). Of the seven participants asked both questions, four gave very similar patterns of responses to the two questions. Many people probably just have a general view regarding their trust in various information sources, regardless of the specific topic.

**Recommendation:** “Health organization” needs to be more clearly defined. At a minimum, rewording to something like “*a government health organization*” should be helpful. The issue of redundancy with HC-18 should be revisited after another round of interviews – if participants tend to give very similar answers to HC-18 and RM5 then there is probably little value in including both questions in the HINTS survey.

### **Physical Activity Stage (PAS)**

**We want to know whether or not you are physically active on a regular basis. By physically active we mean performing an activity that is at least comparable to walking briskly. On a regular basis means that your physical activity adds up to at least 30 minutes a day for at least 3 to 5 days a week and totals to about 1½ hours of physical activity in a week.**

**I’m going to read five statements. For each one, just tell me if it is true for you or not.**

**PASa. I am currently physically active on a regular basis**

**YES  
NO**

Upon hearing the introduction, one respondent immediately commented that it was “too long” and that he “would need a calculator to figure this out.”

One respondent answered “no” to PASa because she did not do 30 minutes of brisk walking per day, yet in later questions she reported being very physical active as a result of taking care of her grandchildren on a daily basis (chasing after them, going and down stairs, lifting them and down, etc). The length and complicated nature of the instructions probably contributed to her not realizing (or forgetting) that the questions is referring to activities *comparable* to walking briskly (rather than walking briskly, per se).

**Recommendation:** The introductory instructions should be shortened and simplified, especially since the survey will be delivered over the telephone. For example, it doesn’t seem necessary to say “at least 3 to 5 days” when “at least 3 days” means the same thing.

Also, specifying that the time must total to 1 and a half hours is unnecessary, since respondents have been informed that the time is “at least 30 minutes a day.” So consider:

*We want to know whether or not you are physically active on a regular basis. By physically active we mean performing activities at least comparable to brisk walking. On a regular basis means the activities add up to at least 30 minutes a day for 3 or more days a week. For each of the following five statements, just tell me if it's true for you or not.*

**PASb. I intend to become more physically active in the next 6 months**

**YES**  
**NO**

**PASc. I currently engage in regular physical activity**

**YES**  
**NO**

A few participants noted that this question sounds identical to PASa.

**Recommendation.** Were we provided the correct item wording for both PASa and PASc? If so, it's not clear what value retaining both items would have, unless it critical to obtain a summary score across the five items for analysis purposes.

**PASd. I have been physically active for the past 6 months**

**YES**  
**NO**

**PASe. I have been physically active regularly in the past for a period of at least 3 months**

**YES**  
**NO**

This question presented difficulty in that respondents did not know exactly how far back in time to go when responding. Some respondents guessed at a time frame: 20 years ago would not be relevant to today, but maybe 5 years ago would. Another respondent started talking about high school sports activity (clearly 30 years ago). Other respondents thought that they had already answered the question in the previous question asking if they've been physically active in the past 6 months.

**Recommendation:** This question should not be asked of people who report being physically active for the past 6 months. Otherwise, consider stipulating a time-frame, such as:

*Within the last five years, I have been physically active for at least a three month period.*

### Physical Activity Behavior (PAB)

I am going to ask you about the time you spent being physically active in the last 7 days. Please answer each question even if you do not consider yourself to be an active person. Think about the activities you do at work, as part of your house and yard work, to get from place to place, and in your spare time for recreation, exercise or sport.

First, think about all the vigorous activities which take hard physical effort that you did in the last 7 days. Vigorous activities make you breathe much harder than normal and may include heavy lifting, digging, aerobics, or fast bicycling. Think only about those physical activities that you did for at least 10 minutes at a time.

PAB1. During the last 7 days, on how many days did you do vigorous physical activities?

- \_\_\_\_\_ Days per week (IF ZERO: PAB3)
- \_\_\_\_\_ Don't Know/Not Sure (PAB3)
- \_\_\_\_\_ Refused (PAB3)

PAB2. How much total time did you usually spend doing vigorous physical activities on one of those days? (IF NECESSARY: Think only about those physical activities you did for at least 10 minutes at a time)

- \_\_ \_\_ Hours per day
- \_\_ \_\_ Minutes per day
- \_\_\_\_\_ Don't Know/Not Sure
- \_\_\_\_\_ Refused

**NOTE:** Here we discuss our observations for questions PAB1 to PAB7 (regarding vigorous activities, moderate activities, walking, and sitting):

There was significant amount of confusion and misreporting in response to the PAB items. The introductions and instructions are very long and often had to be repeated. Details contained in these introductions often got lost. For example, one person thought a question was asking for the number of days *this week* that he did moderate activities,

rather than over the last seven days. Another person neglected to count the walking he does as a bartender, since he assumed the question was asking about time set aside specifically for walking. Someone else estimated an amount of time per day spent walking without restricting it to periods of 10 minutes or longer. Additional misreporting included reporting “fast walking” as vigorous, jogging as walking, and “double counting” – i.e., reporting the same activity as both vigorous and moderate.

It is not clear what these questions are trying to capture. For example, it is not even clear what “vigorous” really means. One respondent said: “My job is not vigorous to me. Someone else might consider it vigorous.” This person is extremely fit and bikes 100 miles up and down mountains. Her job probably should have been reported as “vigorous” since she lifts and carries very heavy objects. The definition of “vigorous” stated in the introduction includes breathing “much hard than normal.” Someone who is in very good shape may not experience heavy breathing when engaging in vigorous activities. Conversely, someone who is in very bad shape will experience heavy breathing when engaging in light or moderate activities. For example, one respondent who was injured in an accident and cannot walk without assistance reported vigorous exercise for two days. When probed, it turned out that the vigorous exercise was vacuum cleaning. She said that since the accident, vacuum cleaning makes her breath hard and for this reason vacuum cleaning qualifies as a vigorous activity. Another woman reported child-care related activities as vigorous, since the activities include a lot of lifting, chasing the kids around the yard, going up and down stairs, and so on. However, she noted these activities have little impact on her breathing, since she has become used to it.

Three respondents had difficulty answering PAB7 (about sitting). One said that it was “just too much” to estimate. He/she said that sitting varied a great deal and that when you tried to factor in meals and other instances of sitting for short times, it just became overwhelming. Another respondent said that “no one thinks about this” and for that reason it was difficult to answer. A third respondent initially reported total hours spent sitting for a week, and then converted that sum to a daily average – yet the two answers were not consistent.

**Recommendation:** These questions seemed to have been designed for a self-administered instrument. In their present form, it appears highly unlikely these questions could yield data of respectable quality if asked in a telephone survey such as HINTS. Perhaps it is not worth exploring this series of questions further. If you do wish to study these questions further, it is difficult to give you precise recommendations given our own confusion about their objectives. But we do feel that separating “types of activities” from their assumed impact on breathing would be an improvement. One approach would be to frame the questions as asking about vigorous activities, moderate activities, and walking – giving examples of each, but not stating anything about the impact on one’s breathing the activities should have. A second approach would define vigorous and moderate strictly in terms of an activity’s impact on breathing, regardless of the type of activity involved. Thus, the injured woman discussed above would presumably not report her vacuuming as “vigorous” under the first approach. But under the second

approach, she no doubt would have counted the vacuuming as vigorous (as she did in her interview). Once the objectives are clarified, Westat can assist in rewording these questions more precisely.

**Now think about activities which take moderate physical effort that you did in the last 7 days. Moderate physical activities make you breath somewhat harder than normal and may include carrying light loads, bicycling at a regular pace, or doubles tennis. Do not include walking. Again, think about only those physical activities that you did for at least 10 minutes.**

**PAB3. During the last 7 days, on how many days did you do moderate physical activities?**

- \_\_\_ Days per week (IF ZERO: PAB5)
- \_\_\_ Don't Know/Not Sure (PAB5)
- \_\_\_ Refused (PAB5)

**PAB4. How much total time did you usually spend doing moderate physical activities on one of those days? (IF NECESSARY: Think only about those physical activities you did for at least 10 minutes at a time)**

- \_\_\_ Hours per day
- \_\_\_ Minutes per day
- \_\_\_ Don't Know/Not Sure
- \_\_\_ Refused

**Now think about the time you spent walking in the last 7 days. This includes at work and at home, walking to travel from place to place, and any other walking that you might do solely for recreation, sport, exercise, or leisure.**

**PAB5. During the last 7 days, on how many days did you walk for at least 10 minutes at a time?**

- \_\_\_ Days per week (IF ZERO: PAB7)
- \_\_\_ Don't Know/Not Sure (PAB7)
- \_\_\_ Refused (PAB7)

**PAB6. How much total time did you usually spend walking on one of those days? (IF NECESSARY: Think only about the walking you did for at least 10 minutes at a time)**

- \_\_\_ Hours per day
- \_\_\_ Minutes per day
- \_\_\_ Don't Know/Not Sure
- \_\_\_ Refused

Now think about the time you spent sitting on weekdays during the last 7 days. Include time spent at work, at home, while doing course work, and during leisure time. This may include time spent sitting at a desk, visiting friends, reading or sitting or lying down to watch television.

**PAB7.** During the last 7 days, how much total time did you usually spend sitting on a week day?

- \_\_\_ \_\_\_ Hours per weekday
- \_\_\_ \_\_\_ Minutes per weekday
- \_\_\_ \_\_\_ Don't Know/Not Sure
- \_\_\_ \_\_\_ Refused

**PAB8.** In general, how often do you protect yourself from the sun, such as by wearing sunscreen, protective clothing, or staying out of the sun during peak hours? Would you say:

- |               |   |
|---------------|---|
| Always        | 1 |
| Usually       | 2 |
| Sometimes, or | 3 |
| Never?        | 4 |

One person had an odd but interesting take on this question: She answered “always” here and yet she in fact does little or nothing to protect herself from the sun. She believes her tan protects her and that people (esp. Americans) are too afraid of the sun. But overall this question seemed to be easily understood and answered.

**Recommendation.** Leave as is.