

## Question in Project:

SHARE Wave 9 – New items on financial decision making, successful ageing, eating habits, sleep, long-term care insurance, and long-term care expectations (English Version)

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## Question Topic:

Personality/ Behavior

## Construct:

Amount of vegetables/fruits intake

## General Information:

**\*Note: This item was tested in German. This is an English translation of the original German wording.\***

## Question Text:

How many servings of fruits or vegetables do you eat during a typical day?  
*[Wie viele Portionen Obst oder Gemüse essen Sie an einem typischen Tag?]*

## Instruction:

One serving could be a medium-sized apple, banana, tomato or one handful of fruits or vegetables. Please exclude potatoes and other starchy roots such as sweet potato or cassava. *[Eine Portion könnte etwa ein mittelgroßer Apfel, eine mittelgroße Banane oder Tomate oder eine Hand-voll Obst oder Gemüse sein. Bitte zählen Sie Kartoffeln und andere stärkehaltige Wurzeln wie Süßkartoffeln und Maniok nicht mit.]*

## Answer Categories:

\_\_\_\_\_servings [*\_\_\_\_\_Portionen*]

## Cognitive Techniques:

General Probing, Difficulty Probing, Specific Probing, Comprehension Probing

## Findings for Question:

### 1. How do the respondents arrive at their answers? Do they compute/count/estimate the number of servings?

When answering the question, all test persons proceeded in such a way that they retrospectively remembered their eating behaviour and counted or roughly estimated the amount of fruit or vegetables they consumed on a typical day:

- *"I eat fruit throughout the day. Every now and then, sometimes a banana, sometimes an apple, sometimes a tangerine. So several times a day. That should be about four servings. Vegetables with the main meal and in the evening I also have vegetables in the form of peppers and tomatoes. If you add it all up, it's 7 servings altogether. Servings for me are an apple, a tangerine. That's what I've added up."* (TP 05)
- *"I definitely eat fruit once a day. It's just my dietary plan. It stands and it is followed through. I usually mix it with yoghurt and some oatmeal and maybe some coconut flakes. So once a day fruit, that's a must for me."* (TP 06)

But the cognitive interviews also brought to light problems with the question. Several test persons reported exclusively on their fruit consumption and either left out their vegetable consumption or only included it in their answers when asked by the interviewer. This could be due to the wording "fruits or vegetables" in the question, which could be interpreted as meaning that respondents should report either their fruit or vegetable consumption, depending on what they consume more frequently:

- *"I could eat fruit all day. Three times a day on average. [...] I simply counted, in terms of fruit, what I eat. [...] But if I add vegetables, I have not taken that into account: I eat vegetables once a day."* (TP 02; changes her answer from 3 to 4 servings)
- *"I eat vegetables like this once a day. And like I said, twice a week I eat fruit."* (TP 04; in question 2, indicates to eat fruit twice a week, in question 3, indicates to eat a serving of vegetables on a typical day. Consequently, in question 2 she should have indicated "daily")

Furthermore, the definition of a serving of fruits or vegetables led to misunderstandings among two test persons (TP 06, 08). They interpreted the definition to mean that a serving refers to "half" an apple or "half" a banana instead of a medium-sized:

- *"So, in terms of size [the definition in the question], two. I eat either a banana or an apple every day. But if you relate it to only half a banana and half an apple, then double it."* (TP 06)
- *"That would be four servings by your definition. So two apples a day or one apple and a banana. [...] The question was based on half a banana and half an apple. [...] Oh, then I misunderstood. Then let's stick with 1."* (TP 08)

Finally, test person 07 pointed out that question 3 could not be answered for persons who had not answered "daily" in question 2, as there was no "typical day" for them in relation to their fruit and vegetable consumption: *"Well, I don't eat this every day. As I said, three or four times a week. This is in contradiction to the previous question. [...] [If I break it down to one day], then I would say: half an apple a day. But as I said, the two questions are a bit contradictory."*

## **2. What kind of fruits and vegetables were the respondents thinking about?**

As already described in the previous section, several test persons thought exclusively about their fruit consumption and left their vegetable consumption out of the equation when answering the question.

When asked, all respondents stated that they had thought about fresh fruit or vegetables when answering the question. Occasionally, frozen fruit or vegetables (TP 01, 03), dried fruit or vegetables (TP 03, 08) and juices or smoothies (TP 02) were also included in the answer.

## **3. How do respondents interpret the terms "starchy roots" and "cassava"?**

The test persons associated the term "starchy roots" primarily with potatoes and occasionally also with the two other vegetables mentioned in the question (sweet potatoes, cassava):

- *"You also gave the example. But I know that too: potatoes have starch, sweet potatoes less, but I believe they do too. That's all I can think of at the moment."* (TP 01)
- *"Basically the potato."* (TP 05)
- *"The most famous is certainly the potato. Then there's the cassava and the sweet potatoes. I can't think of anything else."* (TP 08)

Six test persons claimed having already heard the term cassava, five of whom were able to explain the term in more detail:

- *"I heard it once. I think it is a kind of sweet potato, but I am not sure. I'd have to google it."* (TP 06)
- *"I have read this before, but I cannot explain exactly. Comes from South America, I think. I've never eaten this before."* (TP 09)
- *"Cassava is a kind of potato, something like sweet potato."* (TP 10)

## **Recommendations:**

Question: In order to avoid respondents reporting either exclusively on their fruit or exclusively on their vegetable consumption, it is recommended that both foods be queried

separately.

In order to avoid respondents naming "half" instead of "medium-sized" servings, we recommend not stating a size and to modify the definition(s) of a serving of fruits or vegetables as follows:

"One serving of fruit could be an apple, a banana or a handful of berries." [*"Eine Portion Obst könnte etwa ein Apfel, eine Banane oder eine Handvoll Beeren sein."*]

"One serving of vegetables could be a tomato, a carrot or a handful of lettuce. Please exclude..." [*"Eine Portion Gemüse könnte etwa eine Tomate, eine Karotte oder eine Handvoll Salat sein. Bitte zählen Sie ..."*]

In addition, the question should only be asked to those respondents who indicated in question 2 that they eat fruit or vegetables daily, as there can (logically) be no "typical day" for all other respondents.

Alternatively, the wording of the question should make it clear that respondents should think of a day when they eat fruit and/or vegetables:

"If you think of a day when you eat fruit or vegetables: how many servings of fruit or vegetables do you normally eat?" [*"Wenn Sie an einen Tag denken, an dem Sie Obst oder Gemüse essen: Wie viele Portionen Obst oder Gemüse essen Sie dann normalerweise?"*]

Response Options: No changes recommended.