

**Additional document 1 - Full questionnaire translated to English****General questions**

1. Do you, or someone in your household or someone close to you, have celiac disease?  
If so, who?  
(multiple answers possible)
  - ☐ No
  - ☐ Yes, I have celiac disease myself
  - ☐ Yes, my partner has celiac disease
  - ☐ Yes, my child(ren) has/have celiac disease
  - ☐ Yes, someone else close to me has celiac disease
2. Do you, or someone in your household or someone close to you, have gluten sensitivity?  
If so, who?  
(multiple answers possible)
  - ☐ No
  - ☐ Yes, I have gluten sensitivity myself
  - ☐ Yes, my partner has gluten sensitivity
  - ☐ Yes, my child(ren) has/have gluten sensitivity
  - ☐ Yes, someone else close to me has gluten sensitivity
3. Do you follow a certain diet?  
(multiple answers possible)
  - ☐ No
  - ☐ Yes, gluten free
  - ☐ Yes, carbohydrate-free/low-carb
  - ☐ Yes, lactose-free/low-lactose
  - ☐ Yes, the FODMAP diet
  - ☐ Other, namely.....
4. What is your gender
  - ☐ Male
  - ☐ Female
  - ☐ Other
5. What is your age?  
..... years
6. What is your height?  
..... centimetres
7. What is your weight?  
..... kilograms
8. What is your postal code? (e.g. 1234 AB)  
.....
9. What is your marital status?
  - ☐ Married/cohabiting/relationship/long distance relationship
  - ☐ Single
  - ☐ Other, namely: .....
10. How many people does your household consist of?

- ..... children (< 18 years)  
..... adults (> 18 years)
11. How many children do you have living at home?
- ☐ none / I have no children
  - ☐ 1
  - ☐ 2
  - ☐ 3
  - ☐ 4 or more
12. What is your net monthly income?
- ☐ <1000
  - ☐ 1000-1500
  - ☐ 1500-2000
  - ☐ 2000-2500
  - ☐ 2500-3000
  - ☐ >3000
13. What is the highest level of education you have completed?
- ☐ Primary education/primary school (including special education)
  - ☐ Practical education
  - ☐ VMBO, LWO, VSO
  - ☐ HAVO
  - ☐ VWO, gymnasium, atheneum
  - ☐ MBO
  - ☐ HBO
  - ☐ University education, including postgraduate courses and PhD research
  - ☐ Other, namely: .....
14. Do you have paid work?
- ☐ Yes
  - ☐ No
15. Where were you born?
- ☐ The Netherlands
  - ☐ Turkey
  - ☐ Morocco
  - ☐ Antilles
  - ☐ Suriname
  - ☐ Indonesia
  - ☐ Germany
  - ☐ Poland
  - ☐ Belgium
  - ☐ Other, namely: .....
16. Which ethnicity do you feel most connected to?
- ☐ Dutch
  - ☐ Turkish
  - ☐ Moroccan
  - ☐ Surinamese
  - ☐ Antillean
  - ☐ Indonesian
  - ☐ German
  - ☐ Polish
  - ☐ Belgian
  - ☐ Other, namely: .....

**Eating habits**

The following questions are about what you usually eat, not about what other family members eat.

1. How many slices of (gluten-free) bread or (gluten-free) rolls do you eat on average per day?
  - ☐ I don't eat any bread/rolls (→ continue to question 2)
  - ☐ 1-2 slices/pieces
  - ☐ 3 slices/pieces
  - ☐ 4 slices/pieces
  - ☐ 5 slices/pieces
  - ☐ 6 or more slices/pieces
- 1a. What kind of (gluten-free) bread or (gluten-free) rolls do you usually eat?
  - ☐ whole wheat, brown or multigrain
  - ☐ white
  - ☐ both whole wheat, brown or multigrain, and white
  - ☐ other / I don't know
- 1b. What type of butter/margarine/low-fat margarine do you usually spread on your bread?
  - ☐ I don't spread my bread with any butter/margarine/low-fat margarine
  - ☐ with low-fat margarine, diet low-fat margarine or diet margarine
  - ☐ with margarine or semi-skimmed butter
  - ☐ with butter
  - ☐ other / I don't know
2. On average, how many days per week do you eat rice, (gluten-free) pasta, (gluten-free) couscous or other (gluten-free) grain products?
  - ☐ I don't eat any rice, pasta, couscous or other grain products (→ continue to question 3)
  - ☐ less than 1 day per week
  - ☐ 1-2 days a week
  - ☐ 3-4 days a week
  - ☐ 5-6 days a week
  - ☐ every day
- 2a. How many serving spoons (of ±50 grams) do you eat on average on such a day?
  - ☐ 1 serving spoon
  - ☐ 2 serving spoons
  - ☐ 3 serving spoons
  - ☐ 4 serving spoons
  - ☐ 5 serving spoons
  - ☐ 6 or more serving spoons
- 2b. What kind of rice, (gluten-free) pasta, (gluten-free) couscous or other (gluten-free) grain products do you usually eat?
  - ☐ whole wheat or brown
  - ☐ white
  - ☐ whole wheat or brown, as well as white
  - ☐ other / I don't know

3. On average, how many days per week do you eat or drink dairy products?

*Dairy products include milk, buttermilk, chocolate milk, drinking yoghurt, yoghurt, cottage cheese and custard. Please note: this does not include plant-based milk / yogurt / cottage cheese / custard made from soy, almonds, rice, coconut, etc.*

- ☐ I don't eat or drink dairy products (→ continue to question 4)
- ☐ less than 1 day per week
- ☐ 1-2 days a week
- ☐ 3-4 days a week
- ☐ 5-6 days a week
- ☐ every day

3a. How many bowls/glasses (of  $\pm 150$  grams/ml) of dairy products do you eat or drink on average on such a day?

- ☐ 1 bowl/glass
- ☐ 2 bowls/glasses
- ☐ 3 bowls/glasses
- ☐ 4 bowls/glasses
- ☐ 5 bowls/glasses
- ☐ 6 or more bowls/glasses

3b. What type of dairy products do you usually eat or drink?

- ☐ full milk varieties
- ☐ semi-skimmed, skimmed, light or buttermilk
- ☐ both full and semi-skimmed, lean or light varieties
- ☐ other / I don't know

4. On average, how often did you eat fast food in the past month?

*Fast food includes, for example, a (gluten-free) hamburger, (gluten-free) frikandel, (gluten-free) shawarma or döner kebab. Please note: do not consider pizza and fries here, because questions about this will come later.*

- ☐ I didn't eat any fast food last month / I don't eat fast food
- ☐ 1-2 times a month
- ☐ 3-4 times a month
- ☐ 2-3 times a week
- ☐ 4 times a week or more

5. On average, how often did you eat fries in the past month?

- ☐ I didn't eat any fries last month / I don't eat fries
- ☐ 1-2 times a month
- ☐ 3-4 times a month
- ☐ 2-3 times a week
- ☐ 4 times a week or more

6. On average, how often did you eat (gluten-free) pizza in the past month?

- ☐ I didn't eat any (gluten-free) pizza last month / I don't eat pizza
- ☐ 1-2 times a month
- ☐ 3-4 times a month
- ☐ 2-3 times a week
- ☐ 4 times a week or more

7. On average, how many days per week do you eat boiled or stir-fried vegetables?

- ☐ I don't eat any boiled or stir-fried vegetables (→ continue to question 8)
- ☐ less than 1 day per week
- ☐ 1-2 days a week
- ☐ 3-4 days a week
- ☐ 5-6 days a week
- ☐ every day

7a. How many serving spoons (of  $\pm 50$  grams) do you eat on average on such a day?

- ☐ 1 serving spoon
- ☐ 2 serving spoons
- ☐ 3 serving spoons
- ☐ 4 serving spoons
- ☐ 5 serving spoons
- ☐ 6 or more serving spoons

8. On average, how many days per week do you eat raw vegetables?

*Raw vegetables include lettuce, carrot, cucumber and other types of raw vegetables.*

- ☐ I don't eat any raw vegetables ( $\rightarrow$  continue to question 9)
- ☐ less than 1 day per week
- ☐ 1-2 days a week
- ☐ 3-4 days a week
- ☐ 5-6 days a week
- ☐ every day

8a. How many bowls (of  $\pm 50$  grams) do you eat on average on such a day?

- ☐ less than 1 bowl
- ☐ 1 bowl
- ☐ 2 bowls
- ☐ 3 bowls
- ☐ 4 bowls
- ☐ 5 or more bowls

9. On average, how many days per week do you eat legumes?

*Legumes include chickpeas, kidney beans, brown-, white- and black beans, lentils and soy beans.*

*Please note: this does not include peas, broad beans or green beans.*

- ☐ I don't eat any legumes ( $\rightarrow$  continue to question 10)
- ☐ less than 1 day per week
- ☐ 1-2 days a week
- ☐ 3-4 days a week
- ☐ 5-6 days a week
- ☐ every day

9a. How many serving spoons (of  $\pm 50$  grams) do you eat on average on such a day?

- ☐ 1 serving spoon
- ☐ 2 serving spoons
- ☐ 3 serving spoons
- ☐ 4 serving spoons
- ☐ 5 or more serving spoons

10 On average, how many days per week do you eat a portion of fish?

*A portion of fish is for example, a herring, a piece of salmon, a trout etc.*

- ☐ I don't eat any fish ( $\rightarrow$  continue to question 11)
- ☐ less than 1 day per week
- ☐ 1 day per week
- ☐ 2 days a week
- ☐ 3 days a week or more often

10a What types of fish do you usually eat?

- ☐ oily fish (such as salmon, mackerel, herring)
- ☐ lean fish (such as tuna, cod, tilapia or other white fish)
- ☐ both oily and lean fish
- ☐ otherwise / I don't know

**11 Do you usually use fat for the preparation of hot meals?**

- ☐ I usually don't use butter, margarine, oil or other baking products (→ continue to question 13)
- ☐ I usually use butter, margarine, oil or other baking products

**12 What type of fat do you usually use for the preparation of hot meals?**

- ☐ butter
- ☐ margarine or baking product from a packet
- ☐ margarine or baking product from a bottle
- ☐ oil
- ☐ other / I don't know

**13 On average, how many days per week do you eat sweet snacks?**

*Sweet snacks include candy, chocolate, liquorice, M&M's, (gluten-free) muffin, (gluten-free) cookies, ice cream.*

- ☐ I don't eat any sweet snacks (→ continue to question 14)
- ☐ less than 1 per week
- ☐ 1-2 per week
- ☐ 3-4 per week
- ☐ 5-6 per week
- ☐ every day

**13a How many pieces of sweet snacks do you eat on average on such a day?**

*A piece is, for example, 2 cubes of chocolate (15 grams), 1 handful of liquorice, 1 handful of M&M's, 1 muffin, 1 cookie, 1 ice cream cone.*

- ☐ 1-2 pieces
- ☐ 3-4 pieces
- ☐ 5-6 pieces
- ☐ 7-8 pieces
- ☐ 9-10 pieces
- ☐ 11 or more pieces

**14 On average, how many days per week do you eat unsalted nuts and/or peanuts?**

- ☐ I don't eat any unsalted nuts and peanuts (→ continue to question 15)
- ☐ less than 1 day per week
- ☐ 1-2 days a week
- ☐ 3-4 days a week
- ☐ 5-6 days a week
- ☐ every day

**14a How many handfuls do you eat on average on such a day?**

*One handful is approximately 25 grams.*

- ☐ 1-2 handfuls
- ☐ 3-4 handfuls
- ☐ 5-6 handfuls
- ☐ 7-8 handfuls
- ☐ 9-10 handfuls
- ☐ 11 or more handfuls

**15 On average, how many days per week do you eat potato chips or (gluten-free) snacks?**

- ☐ I don't eat any potato chips or (gluten-free) snacks (→ continue to question 16)
- ☐ less than 1 day per week
- ☐ 1-2 days a week
- ☐ 3-4 days a week
- ☐ 5-6 days a week
- ☐ every day

**15a. How many handfuls do you eat on average on such a day?**

*A single bag of potato chips contains approximately 3 handfuls, a medium-sized bag contains 12 handfuls and a family bag of chips contains approximately 20 handfuls.*

- ☐ 1-2 handfuls
- ☐ 3-4 handfuls
- ☐ 5-6 handfuls
- ☐ 7-8 handfuls
- ☐ 9-10 handfuls
- ☐ 11 or more handfuls

**16 On average, how many days per week do you eat fruit?**

- ☐ I don't eat any fruit → continue to question 17)
- ☐ less than 1 day per week
- ☐ 1-2 days a week
- ☐ 3-4 days a week
- ☐ 5-6 days a week
- ☐ every day

**16a How many portions do you eat on average on such a day?**

*A portion is for example, 1 apple, 1 banana, 2 mandarin oranges, 1 small bowl of strawberries, 1 slice of melon.*

- ☐ less than 1 serving
- ☐ 1 serving
- ☐ sometimes 1, sometimes 2 portions
- ☐ 2 or more servings

**17 On average, how many days per week do you drink soft drinks or other sugary drinks?**

*Soft drinks or other sugary drinks include, for example, regular soft drinks (cola, orange, 7-up, etc.), iced tea, fruit drinks, fruit juice. Please note: this does not include diet soft drinks and water.*

- ☐ I don't drink any soft drinks and sugary drinks (→ continue to question 18)
- ☐ less than 1 day per week
- ☐ 1-2 days a week
- ☐ 3-4 days a week
- ☐ 5-6 days a week
- ☐ every day

**17a How many glasses of soft drinks or sugary drinks do you drink on average on such a day?**

- ☐ 1 glass
- ☐ 2 glasses
- ☐ 3 glasses
- ☐ 4 glasses
- ☐ 5 glasses
- ☐ 6 or more glasses

**18 On average, how many days per week do you drink tea?**

- ☐ I don't drink any tea (→ continue to question 19)
- ☐ less than 1 day per week
- ☐ 1-2 days a week
- ☐ 3-4 days a week
- ☐ 5-6 days a week
- ☐ every day

18a How many cups of tea do you drink on average on such a day?

- ☐ less than 1 cup
- ☐ 1-2 cups
- ☐ 3 or more cups

18 What kind of tea do you usually drink?

- ☐ herbal tea (such as rooibos, star mix, chamomile, nettle)
- ☐ green or black ('regular') tea
- ☐ both herbal tea and green or black ('regular') tea
- ☐ otherwise / I don't know

18c. When you drink tea, do you add sugar to it?

- ☐ No, never
- ☐ Yes, sometimes/usually
- ☐ Yes, always

19 Do you drink any coffee?

- ☐ I do not drink any coffee (→ skip question 19a)
- ☐ I drink coffee sometimes

19a What type of coffee do you usually drink?

- ☐ coffee made with a paper filter or percolator / from coffee pads / instant coffee
- ☐ espresso or coffee from pods / from a coffee machine
- ☐ coffee made with a cafetière (for example in a café or restaurant)
- ☐ otherwise / I don't know

Do you have any comments about your eating habits?

.....



**Specific questions about gluten-free products**

The following questions are specifically about gluten-free eating and cooking. Please indicate to what extent you disagree or agree with the following statements:

	Totally disagree	Disagree	Do not agree, do not disagree	Agree	Totally agree
1. I find it difficult to eat gluten-free under normal circumstances	1	2	3	4	5
2. I find it difficult to cook gluten-free under normal circumstances	1	2	3	4	5
3. I find it difficult to eat gluten-free when I have little money	1	2	3	4	5
4. I find it difficult to cook gluten-free when I have little money	1	2	3	4	5
5. I find it difficult to eat gluten-free when I have little time	1	2	3	4	5
6. I find it difficult to cook gluten-free when I have little time	1	2	3	4	5
7. I find it difficult to eat a healthy gluten-free diet	1	2	3	4	5
8. I find it difficult to cook healthy gluten-free meals	1	2	3	4	5
9. I find it difficult to eat a varied gluten-free diet	1	2	3	4	5
10. I find it difficult to cook varied gluten-free meals	1	2	3	4	5
11. I find it difficult to eat a delicious gluten-free diet	1	2	3	4	5
12. I find it difficult to cook delicious gluten-free meals	1	2	3	4	5
13. I find it difficult to eat gluten-free with products that are naturally gluten-free (for example without gluten-free pasta or gluten-free bread)	1	2	3	4	5
14. I find it difficult to cook gluten-free with products that are naturally gluten-free (for example without gluten-free pasta or gluten-free bread)	1	2	3	4	5
15. I find it difficult to eat gluten-free with the current range of gluten-free products in the supermarket	1	2	3	4	5
16. I find it difficult to cook gluten-free with the current range of gluten-free products in the supermarket	1	2	3	4	5
17. I find it difficult to eat gluten-free with the current range of gluten-free products in restaurants/cafes	1	2	3	4	5
18. I find it difficult to eat gluten-free when I eat with friends/family/acquaintances	1	2	3	4	5
19. I find it difficult to eat gluten-free when the places that sell gluten-free products are far away	1	2	3	4	5

The range of gluten-free products is....

	1	2	3	4	5	
Not tasty						Tasty
Insufficient						Sufficient
Small						Big
Unhealthy						Healthy
Expensive						Cheap
Bad						Good
Difficult to obtain						Easy to obtain

Open questions

1.

In recent months, food products have generally become more expensive. Some gluten-free products have also become more expensive. What do you notice about that? And how do you deal with this?

.....
2.

In your opinion, are gluten-free products and foods readily available (for example in the supermarket or eateries)?

☐Yes ☐ No

Can you elaborate?

.....
3.

In your opinion, are gluten-free products and foods affordable?

☐Yes ☐No

Can you elaborate?

.....
4.

Do you have any other comments about (gluten-free) food and financial matters?

.....

Food security

The following statements are about the food intake in your household and whether you could afford the (gluten-free) food you needed. The statements are about the past 12 months

Please indicate how often the statements below apply to you.

- 1

In the past 12 months, the food I (or other family members) bought was not enough, and I (or other family members) did not have money to buy more (gluten-free) food.

☐ this happened often

☐ this happened sometimes

☐ this never happened

☐ I don't know / I don't want to say
- 2

In the past 12 months, I (or other family members) did not have enough money to eat a healthy (gluten-free) meal.

☐ this happened often

☐ this happened sometimes

☐ this never happened

☐ I don't know / I don't want to say
- 3

In the past 12 months, I (or other family members) have sometimes cut the size of a meal or skipped a meal because there was not enough money for (gluten-free) food.

☐ Yes

☐ no (→continue to question 4)

☐ I don't know / I don't want to say (→continue to question 4)

- 3a. How often did this happen in the past 12 months?

☐ (almost) every month

☐ some months but not every month

☐ Only 1 or 2 months

☐ I don't know / I don't want to say
4. In the past 12 months, I (or other family members) have sometimes eaten too little because there was not enough money for (gluten-free) food.

☐ Yes

☐ No

☐ I don't know / I don't want to say
5. In the past 12 months, I (or other family members) have sometimes felt hungry, but didn't eat because there wasn't enough money for food.

☐ Yes

☐ No

☐ I don't know / I don't want to say

Your opinion on financial matters

The following statements are about financial matters. The statements are about the past 12 months.

To what extent do you agree or disagree with the following statements?

		Totally disagree	Disagree	Do not agree, do not disagree	Agree	Totally agree
1.	I often have too little money.	1	2	3	4	5
2.	I wonder all the time if I have enough money.	1	2	3	4	5
3.	I often worry about money.	1	2	3	4	5
4.	I'm only concerned with what I have to pay now. I'll see the rest later.	1	2	3	4	5
5.	I feel like I have little control over my financial situation.	1	2	3	4	5

WHO-5: a short self-reported measure of current mental well-being

The following questions are about your health and how you feel.

Please indicate for each of the five statements which is closest to how you have been feeling over the past two weeks. Notice that higher numbers mean greater well-being.		All of the time	Most of the time	More than half of the time	Less than half of the time	Some of the time	At no time
1	I have felt cheerful and in good spirits	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>	0 <input type="checkbox"/>
2	I have felt calm and relaxed	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>	0 <input type="checkbox"/>
3	I have felt active and vigorous	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>	0 <input type="checkbox"/>
4	I woke up feeling fresh and rested	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>	0 <input type="checkbox"/>
5	My daily life has been filled with things that interest me	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>	0 <input type="checkbox"/>

## 17. Do you suffer from one or more of the health conditions below?

*Multiple answers possible*

- ☐ Diabetes
- ☐ Obesity (BMI of 30 or higher)
- ☐ High cholesterol
- ☐ High blood pressure (hypertension)
- ☐ Cardiovascular disease (myocardial infarction, cataract, cerebral infarction or TIA, heart failure)
- ☐ COPD (asthma, pulmonary fibrosis, emphysema)
- ☐ A rheumatic condition
- ☐ Arthrosis
- ☐ Depression/anxiety disorder
- ☐ Other, namely: .....
- ☐ No

## 18. Do you smoke?

- ☐ No
- ☐ Yes
- ☐ I have smoked in the past, but I don't smoke anymore

**Exercise**

The next questions are about how much exercise you do. We ask you about physical activity that is at least moderately active. Moderate active exercise may include cycling, brisk walking, swimming, tennis, gardening or volleyball.

When completing the questions, keep a typical week in the past month in mind.

## 1. On average, how many days per week do you engage in physical activity that is at least moderately active?

- ☐ I don't do moderately active exercise (→skip question 2)
- ☐ 1 day per week
- ☐ 2 days a week
- ☐ 3 days a week
- ☐ 4 days a week
- ☐ 5 days a week or more

## 2. How many minutes do you spend exercising, at least moderately active, on such a day?

- ☐ 1 to 10 minutes
- ☐ 10 to 20 minutes
- ☐ 20 to 30 minutes
- ☐ 30 minutes or more