

## Press Release

### Czech public opinion on the gluten-free diet – June 2018

- ⊕ It can generally be said that the majority of the Czech public has heard of the gluten-free diet and has some awareness of what it refers to (88%). By contrast, 12% of respondents have not heard of it.
- ⊕ Women, people with a good standard of living, and people who have children tend to be more informed about the gluten-free diet, and the level of knowledge increases with higher educational attainment.
- ⊕ Only 4% of people in the CR adhere to a gluten-free diet (2% for health reasons and 2% by their own decision).
- ⊕ Just under three-quarters of respondents agree that people who stick to a gluten-free diet have a more difficult life (72%) and that gluten-free products are too expensive (71%).
- ⊕ The least respondents are of the opinion that a gluten-free diet is healthier than a regular diet (25%) and that a gluten-free diet is harmful for people who follow it when they don't have to do so for health reasons (21%).

Prepared by:

Radka Hanzlová

Public Opinion Research Centre, Institute of Sociology, Czech Academy of Sciences  
Tel.: 210 310 583; e-mail: radka.hanzlova@soc.cas.cz



In the Czech Society survey fielded by the Public Opinion Research Centre in June, which dealt among other things with the problem of food waste, we also included several questions inquiring into what the Czech public knows about the gluten-free diet and what they think about it.

Gluten intolerance and a gluten-free diet are topics of importance for shopping behaviour and food choices as they can be factors that influence both shopping strategies and individual lifestyles. Because these are topics that are currently receiving more and more attention, in our view it is important to chart the Czech public's basic awareness about diseases caused by gluten (celiac disease, gluten allergies, gluten sensitivity).

Gluten (from Latin *gluten*, 'glue') is a composite of storage proteins termed prolamins and glutelins that is stored together with starch in the endosperm (which nourishes the embryonic plant during germination) of various cereal (grass) grains. It is found in wheat, barley, rye and related species and hybrids (such as spelt, khorasan, emmer, einkorn, triticale, kamut, etc.), as well as products derived from these grains (such as breads and malts). Glutens, and most especially the Triticeae glutens, are appreciated for their viscoelastic properties, which give dough its elasticity, helping it rise and keep its shape and often leaving the final product with a chewy texture.<sup>1</sup>

Klára Tomášková, Dis, explains: 'The term celiac comes from the Greek word "*koiliakos*" meaning *suffering from intestinal problems*. Celiac disease is a lifelong disease that presents as a permanent intolerance for gluten in food. After consuming food that contains gluten, people with celiac disease will experience an autoimmune reaction that is manifested as damage to the mucosa of the small intestine, followed by chronic inflammation of the mucosa, which lose their microvilli and villi. This has the effect of decreasing the surface of the small intestine, whereby its ability to digest and absorb nutrients is reduced. Treatment for celiac disease is lifelong adherence to a gluten-free diet'.<sup>2</sup>

<sup>1</sup> Wikipedia. (2018). Gluten. [cit. 06-08-2018]. Available from: <https://en.wikipedia.org/wiki/Gluten>

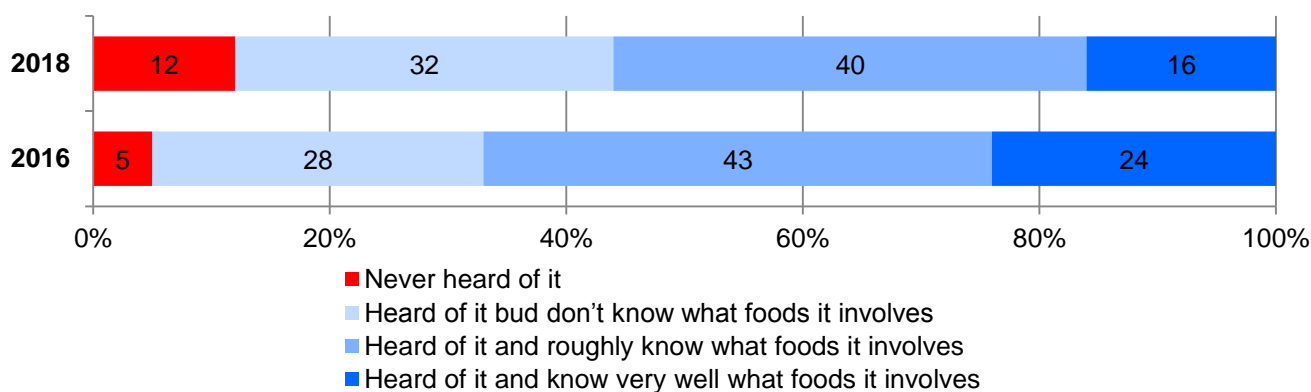
<sup>2</sup> Tomášková, K. Celiakie a bezlepková dieta. Společnost pro výživu. [cit. 06-08-2018]. Available from: <http://www.vyzivaspol.cz/odborne-sekce/dietni-a-klinicka-vyziva/pro-verejnost/vybrane-diety/celiakie-a-bezlepkova-dieta/>

Patients with celiac disease can have difficulty sticking to this diet primarily because it is expensive to do so. Although insurance companies in the Czech Republic now offer financial allowances for patients (mainly children) who have to follow a gluten-free diet, the amount of the allowance is very small and insufficient.<sup>3</sup>

Typical symptoms of celiac disease include diarrhoea, gas, stomach cramps, weight loss, and fatigue. The disorder can surface at any time in a person's life – in childhood or as an adult – and the symptoms can vary or there may be no symptoms at all. Because the disease can manifest itself through a great variety of symptoms, it can often be difficult to provide a timely and correct diagnosis of celiac disease, which is consequently also referred to as the 'chameleon disease'.<sup>4</sup> It is estimated that approximately 40 to 50 thousand people in the Czech Republic have celiac disease, while of this number only 10–15% of people with this illness have received a diagnosis.<sup>5</sup>

The first question we asked the Czech public was whether they had heard of and what they knew about the gluten-free diet (see Figure 1). It can generally be said that the majority of the respondents had heard of the gluten-free diet and had some awareness about what (what foods) it refers to. Specifically, approximately one-third (32%) of respondents had heard of the gluten-free diet, but did not know what foods it pertains to. Two-fifths (40%) of respondents indicated that they had heard of this diet and knew roughly what foods it relates to, and approximately one-sixth (16%) of respondents stated that they were very familiar with the gluten-free diet. Conversely, according to the current survey slightly more than one-tenth (12%) of respondents had never heard of the gluten-free diet.

**Figure 1: How much does the public know about the gluten-free diet? (%)<sup>6</sup>**



Source: Public Opinion Research Centre, Institute of Sociology, Czech Academy of Sciences, Czech Society 16– 29 June 2018, 1078 respondents over the age of 15, face-to-face interviews.

The current survey revealed statistically significant changes from the results of the survey in 2016, when the question was fielded for the first time. The share of people who had heard about the gluten-free diet and knew very well what foods it involves decreased by 8 percentage points, while those who had never heard of the gluten-free diet grew (by 7 percentage points). There was also a slight increase (by 4 percentage points) in the share of people who although they had heard of the gluten-free diet did not know what it referred to. This is a relatively surprising result, as the gluten-free diet is currently becoming increasingly popular, especially among the ordinary population with no related health problems, because there is a widespread belief that the gluten-free diet is healthier, that it is helpful for losing weight, and that is beneficial to health in general.<sup>7</sup>

<sup>3</sup> Ordinace.cz. (2018). *Příspěvky zdravotních pojišťoven na bezlepkovou dietu 2018*. [cit. 07-08-2018]. Available from: <http://www.ordinace.cz/clanek/prispevky-zdravotnich-pojistoven-na-bezlepkovou-dietu/>

<sup>4</sup> Celiak.cz. *Celiakie*. [cit. 06-08-2018]. Available from: <https://www.celiak.cz/o-nemoci/celiakie>

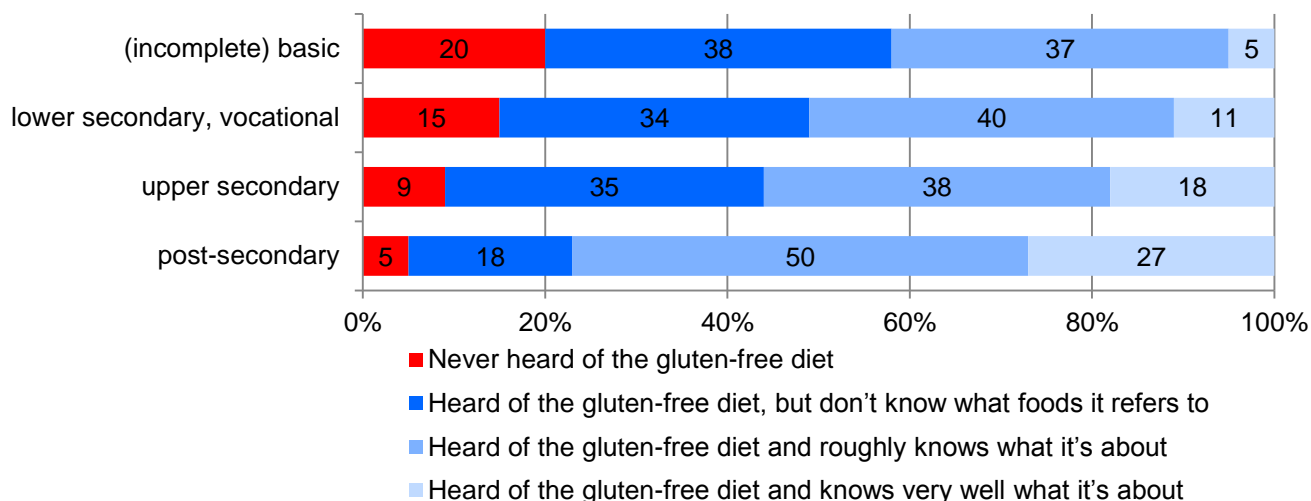
<sup>5</sup> Tomášková, K. *Celiakie a bezlepková dieta*. Společnost pro výživu. [cit. 06-08-2018]. Available from: <http://www.vyzivaspol.cz/odborne-sekce/dietni-a-klinicka-vyziva/pro-verejnost/vybrane-diety/celiakie-a-bezlepkova-dieta/>

<sup>6</sup> The question read: 'Have you heard of the gluten-free diet? No, you've never heard of the gluten-free diet; you've heard of the gluten-free diet, but you don't know what foods it involves; you've heard of the gluten-free diet and you roughly know what foods it involves; you've heard of the gluten-free diet and you know very well what foods it involves.'

<sup>7</sup> Hejduk Bobková, B. (2017). *Bezlepková dieta – fakta a mýty*. Bakalářská práce. Praha. Univerzita Karlova, 1. lékařská fakulta. Vedoucí práce Ing. Pejšová, Hana. Available from: [https://dspace.cuni.cz/bitstream/handle/20.500.11956/90327/BPTX\\_2016\\_1\\_11110\\_0\\_440769\\_0\\_184802.pdf?sequence=1&isAllowed=y](https://dspace.cuni.cz/bitstream/handle/20.500.11956/90327/BPTX_2016_1_11110_0_440769_0_184802.pdf?sequence=1&isAllowed=y)

If we look at the respondents' characteristics, we find that people with a good standard of living are more informed about the gluten-free diet. Women are significantly more aware than men of the gluten-free diet and the foods it relates to. People who have children are also more informed. How much people know about the gluten-free diet also significantly correlates with respondents' educational attainment. Specifically, awareness and knowledge about the gluten-free diet and the foods it relates to increases with educational attainment, and the biggest difference is between people with incomplete or basic education and people with university education (see Figure 2).

**Figure 2: Knowledge of the gluten-free diet by education level (%)**



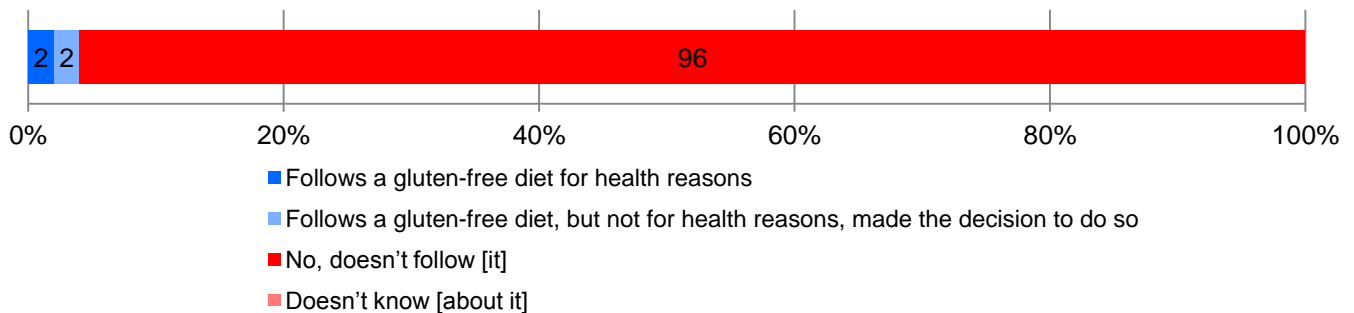
Source: Public Opinion Research Centre, Institute of Sociology, Czech Academy of Sciences, Czech Society 16–29 June 2018, 1078 respondents over the age of 15, face-to-face interviews.

Another question focused on whether respondent themselves adhered to a gluten-free diet. As Figure 3 clearly shows, the absolute majority of respondents (96%) were not following a gluten-free diet. Only 2% of respondents indicated they were following a gluten-free diet for health reasons or because they decided to on their own.

The results of the current survey roughly correspond to the results from the previous survey in June 2016, when, however, the question was posed in a slightly different way and there were also other response options.<sup>8</sup> In 2016, 2% of respondents indicated they followed a gluten-free diet for health reasons and 1% that they did so because they had decided on their own to do so. Just under three-tenths of respondents indicated that someone in their close (12%) or wider (17%) circles adhered to a gluten-free diet. Conversely, more than three-fifths (62%) of respondents selected the response that neither they themselves nor anyone around them followed a gluten-free diet. The remaining 6% of respondents were unable to answer the question and selected the response 'don't know'.

<sup>8</sup> In 2016 the question was worded as follows: 'Do you follow or does anyone around you follow a gluten-free diet? Yes, you follow a gluten-free diet for health reasons. Yes, you follow a gluten-free diet, but not for health reasons, you made the decision to do so. Yes, you know someone close to you who follows a gluten-free diet. Yes, you know someone in your wider circles who follows a gluten-free diet. No, neither you nor anyone around you follows a gluten-free diet.'

**Figure 3: Do you follow a gluten-free diet? (%)<sup>9</sup>**

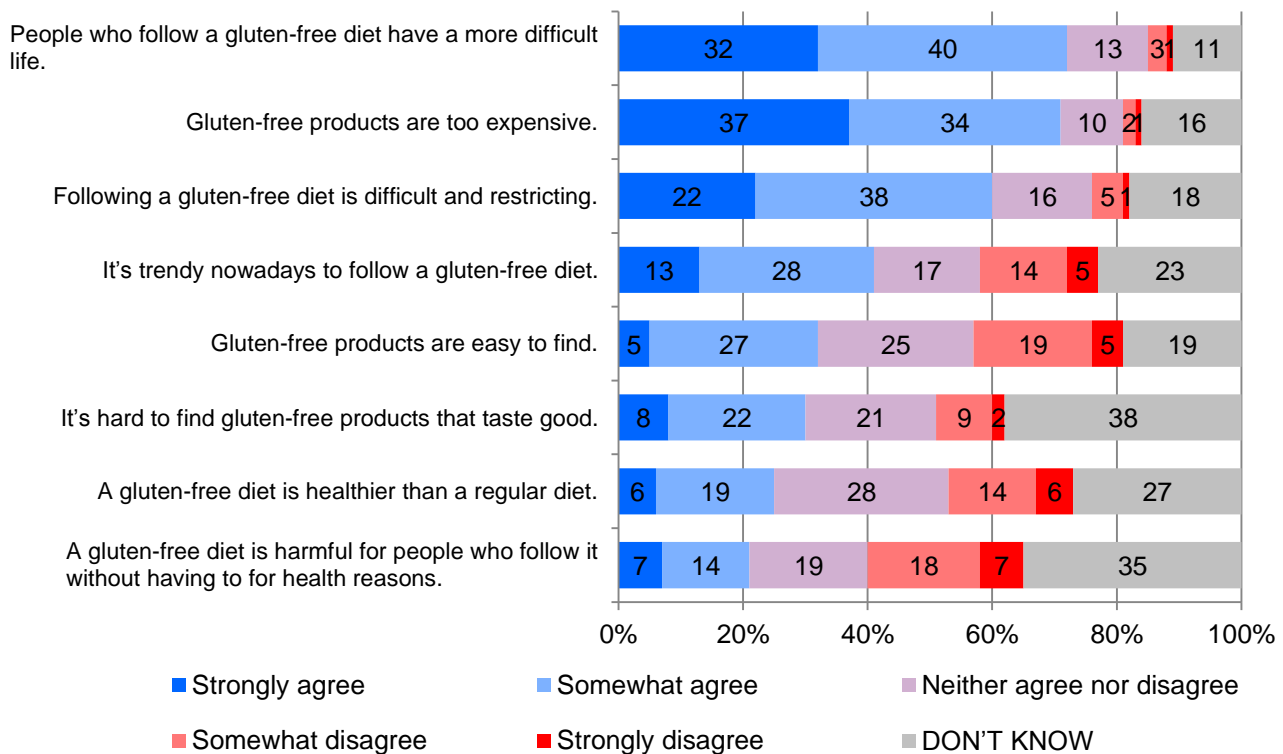


Note: Only respondents who had heard of a gluten-free diet were included.

Source: Public Opinion Research Centre, Institute of Sociology, Czech Academy of Sciences, Czech Society 16– 29 June 2018, 1078 respondents over the age of 15, face-to-face interviews.

To conclude, we presented respondents with several statements relating to a gluten-free diet and asked them to decide whether they agree or disagree with them. The results are depicted in Figure 4.

**Figure 4: Agreement and disagreement with statements about gluten-free diets (%)**



Note: Items are listed according to the agreement of agreement („strongly agree“ + „somewhat agree“) with the given item. Only those respondents who had heard of gluten-free diets were included.

Source: Public Opinion Research Centre, Institute of Sociology, Czech Academy of Sciences, Czech Society 16– 29 June 2018, 1078 respondents over the age of 15, face-to-face interviews.

<sup>9</sup> The question read: 'Do you follow a gluten-free diet? Yes, you follow a gluten-free diet for health reasons. Yes, you follow a gluten-free diet, but not for health reasons, you made the decision to do so. No, you do not follow a gluten-free diet.'

While only respondents who had heard of a gluten-free diet commented on the statements, and only a very small number of them claimed to follow a gluten-free diet themselves, for the majority of statements we recorded a large share of 'don't know' responses and the middle response options, i.e. 'neither agree, nor disagree', and when these response options were added together they often accounted for more than one-half of the respondents. This means that respondents do not have enough information about the gluten-free diet to be able to comment on these statements or to have their own opinion on them, and for this reason they incline towards these two response options. The largest share of respondents agreed with the statements that people who follow a gluten-free diet have a more difficult life (72%) and that gluten-free products are too expensive (71 %), and only a marginal share of respondents did not agree with these statements (4% and 3%, respectively). The smallest shares of 'neither agree nor disagree' and 'don't know' responses were recorded for these two statements. Three-fifths (60%) of respondents also agreed that following a gluten-free diet is difficult and restricting (6% disagreed). With the rest of the statements, less than one-half in each case expressed agreement. More than two-fifths (41%) of respondents hold the opinion that it's trendy nowadays to follow a gluten-free diet, while just under one-fifth (19 %) had the opposite opinion. Less than one-third of respondents said they believed that gluten-free products are easy to find (32%; while for 24% they are not easily available) and that it's hard to find gluten-free products that taste good (30% agree, 11% disagree). One-quarter (25%) of respondents believed that a gluten-free diet is healthier than regular diet (20% disagree; 28% 'neither agree nor disagree'; 27% 'don't know') and approximately one-fifth (21%) held the view that a gluten-free diet is bad for people who follow it if they don't have to for health reasons (25% disagree; 19% 'neither agree nor disagree'; 35% 'don't know').

---

## Technical parameters of the survey

<i>Research:</i>	<i>Czech Society, v18-06</i>
<i>Fielded by:</i>	<i>Public Opinion Research Centre, Institute of Sociology, Czech Academy of Sciences</i>
<i>Project:</i>	<i>Czech Society – Continuous Public Opinion Research Project of the Public Opinion Research Centre of the Institute of Sociology, Czech Academy of Sciences</i>
<i>Field survey dates:</i>	<i>16–29 June 2018</i>
<i>Sampling method:</i>	<i>Quota sampling</i>
<i>Quotas:</i>	<i>Region (NUTS 3 regions), size of place of residence, sex, age, education</i>
<i>Data source for quota sampling:</i>	<i>Czech Statistical Office</i>
<i>Representativeness:</i>	<i>Population of the Czech Republic over the age of 15</i>
<i>Number of responses:</i>	<i>1078</i>
<i>Number of interviewers:</i>	<i>240</i>
<i>Data collection method:</i>	<i>Face-to-face interviews conducted by interviewers with respondents – combined CAPI and PAPI</i>
<i>Research instrument:</i>	<i>Standardised questionnaire</i>
<i>Questions:</i>	<i>PL.25, PL.26, PL.37</i>
<i>Press release no.:</i>	<i>OR180904c</i>
<i>Published on:</i>	<i>4th September 2018</i>
<i>Prepared by:</i>	<i>Radka Hanzlová</i>

---

## Glossary of terms:

A quota sample replicates the structure of the basic population of the study (in this case the population of the Czech Republic over the age of 15) by setting quotas for different parameters. In other words, a quota sample is based on the same proportion of persons with the selected characteristics. We used data from the Czech Statistical Office to create the quotas. In our surveys quotas are set for sex, age, education, region, and community size. The sample is thus selected so that the percentage of men and women in the sample corresponds to the share of men and women in each region of the CR. Similarly the sample reflects the corresponding shares of the population in individual regions in the CR, citizens in different age groups, people with different levels of education, and people in different sizes of communities.

A representative sample is a sample from the total population whose characteristics can be validly inferred to apply as the characteristics of the population overall. In our case this means that respondents were selected with a view to generalising the collected data as applicable to the population of the Czech Republic over the age of 15.

---

The Public Opinion Research Centre (CVVM) is a research department of the Institute of Sociology, Czech Academy of Sciences. Its history dates back to 1946, when the Czechoslovak Institute for Public Opinion Research began operating as part of the Ministry of Information. The current CVVM emerged in 2001 when its predecessor (IVVM) was transferred from the Czech Statistical Office to the Institute of Sociology. Its incorporation within an academic institution provides a guarantee of high professional standards and quality, and as part of an academic environment the CVVM is required to fulfil criteria that ensure it meets the highest professional standards. The CVVM's work is centred on the Czech Society research project, in the frame of which it examines public opinion by conducting ten surveys annually on a representative sample of the population aged 15 and over, with approximately 1000 respondents participating in each survey. The questionnaire's omnibus format makes it possible to cover a wide array of topics. Political, economic, and other generally social topics are regularly added to the survey. The surveys include both repeat questions, whereby it is possible to observe phenomena over time, and new topics that reflect current events. The long-term and continuous nature of this project focused on surveying public opinion is unique in the Czech Republic.

---

**'This work was supported by the AV21 Strategy of the Academy of Sciences under the "Foods for the Future".'**

<http://www.potravinvyav21.cz/>