



COVID-19 PANDEMIC IN SLOVENIA

**Results of a panel online survey on the impact
of the pandemic on life (SI-PANDA),
21st iteration**

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INTRODUCTION

The COVID-19 pandemic has had a significant impact on all areas of human life, both in Slovenia and around the world. It has been three years since the first SARS-CoV-2 infection occurred in Slovenia on 4 March 2020. Since then, Slovenia has experienced several epidemic waves, affecting the entire country and all its inhabitants in one way or another. This time has been important for researching the impact and consequences of the pandemic on the individual and society as well as on the health system. The severity and the scope of the COVID-19 pandemic and the introduction of measures to prevent and limit the transmission of the infection have had a profound impact on the daily lives of all people in 2020 and 2021, including those not directly affected by the virus. The uncertain and long-lasting period of health and social crisis has led to a gradual exhaustion of compensatory mechanisms in humans, and thus to a lower success rate of measures to prevent the spread of SARS-CoV-2 infection among the population.

In order to better understand people's behaviour in the context of a crisis situation, both in terms of adherence to recommended measures such as vaccination against COVID-19, use of a mask, keeping safety distance, etc., as well as to gain insight into changes in their lifestyle, physical and mental health, we have already launched the SI-PANDA survey on 4 December 2020, which studies the impact of the COVID-19 pandemic on the lives of Slovenians. After 19 iterations of the survey in 2020 and 2021 (the last was carried out from 7 to 10 December 2021), a new set of 6 surveys is now on the way, with the first iteration carried out from 20 to 23 September 2022.

External circumstances have changed in the meantime. The SARS-CoV-2 virus has become our constant companion, as they call it our "new normal". We seem to have forgotten very quickly that anyone of us, at any age, can become seriously ill or even die from COVID-19. It is also true that most people who become infected with SARS-CoV-2 today, when Omicron is the predominant variant, are likely to have mild to moderate respiratory illness and will recover without special treatment. However, there are people among us, especially the elderly and those with chronic conditions, who are at greater risk from the disease. As a solidarity society, we have a duty to protect them through our behaviour. We are also facing the post-COVID syndrome or long COVID. This is a condition after SARS-CoV-2 infection, when various health problems persist for two months or longer, they cannot be explained by an alternative diagnosis, and severely affect an individual's functioning at work or at home.

The new set of SI-PANDA research aims to determine how often people have been exposed to SARS-CoV-2 infection since the beginning of the pandemic, and to study the consequences of recovering from SARS-CoV-2 infection. Given that vaccination against COVID-19 is still one of the most effective measures, we are also interested in people's attitudes towards vaccination and the reasons for their hesitation.

The results of the research presented in the report are aimed at experts and decision-makers, as well as the media and general public. This also implements the WHO recommendation¹, that countries should regularly conduct qualitative and quantitative population surveys, which should be the basis for further action.

¹ <https://apps.who.int/iris/bitstream/handle/10665/335820/WHO-EURO-2020-1160-40906-55390-eng.pdf>

METHODOLOGICAL NOTES

The research in the form of an online survey is being conducted in twenty-six iterations starting on 4 December 2020. The first set of the survey (up to and including the 12th iteration) was conducted by the Mediana Institute for Market and Media Research on behalf of the National Institute of Public Health (NIJZ) while the second and third sets are being conducted by Valicon. The first twelve iterations were conducted once every two weeks and the second part, including the 19th iteration, once a month. The third set of survey, which is being carried out after a nine-month break, will also be carried out once a month. The data are analysed at the NIJZ.

Selected panel members are invited to the online survey, which takes place through the online panel. Each iteration of online survey involves a representative sample of about 1,000 adults aged 18 to 74.

At the beginning of research, we used the World Health Organization (WHO)² questionnaire as a basis, which we translated and adapted to the situation in our country according to the WHO guidelines. We also used the translated MHI-5 questionnaire to measure individuals' mental health and the 7C questionnaire to determine the willingness to vaccinate. We have also included some questions that have been used in previous surveys carried out by the National Institute of Public Health and questions that members of the research team and colleagues have designed according to current needs.

The data presented in the report are weighted by gender, age groups and statistical region.

The report presents data from the **21th iteration** of the online survey, that took place **from 18 October 2022 to 21 October 2022** on a sample of 1,011 adults aged 18 to 74 years. Some comparisons with previous iterations of the survey are also shown.

Research carried out so far:

1st iteration from 4 Dec 2020 to 6 Dec 2020

2nd iteration from 18 Dec 2020 to 21 Dec 2020

3rd iteration from 4 Jan 2021 to 5 Jan 2021

4th iteration from 15 Jan 2021 to 17 Jan 2021

5th iteration from 29 Jan 2021 to 30 Jan 2021

6th iteration from 12 Feb 2021 to 15 Feb 2021

7th iteration from 26 Feb 2021 to 1 Mar 2021

13th iteration from 8 Jun 2021 to 10 Jun 2021

14th iteration from 6 Jul 2021 to 9 Jul 2021

15th iteration from 25 Aug 2021 to 28 Aug 2021

16th iteration from 21 Sept 2021 to 23 Sept 2021

17th iteration from 12 Oct 2021 to 15 Oct 2021

18th iteration from 9 Nov 2021 to 12 Nov 2021

19th iteration from 7 Dec 2021 to 10 Dec 2021

20th iteration from 20 Sept 2022 to 23 Sept 2022

21st iteration from 18 Oct 2022 to 21 Oct 2022

² <https://www.euro.who.int/en/health-topics/health-determinants/behavioural-and-cultural-insights-for-health/tools-and-resources/who-tool-for-behavioural-insights-on-covid-19/survey-tool-and-guidance-behavioural-insights-on-covid-19-produced-by-the-who-european-region>.

KEY FINDINGS OF THE 21ST ITERATION

➤ Supporting current recommendations

In the 21st survey iteration, the respondents gave the highest levels of support to the recommendation of effective ventilation in educational institutions (79.0%), isolation for persons with confirmed SARS-CoV-2 infection (74.5%), and the use of masks in health care facilities, pharmacies, and homes for the elderly (65.8%). People in the 18 to 29 age group give the least support to most current recommendations, while people in the 65 to 74 age group give the most support.

➤ Vaccination against COVID-19 and seasonal influenza

In the most recent iterations of SI-PANDA, the proportion of people who do not intend to be vaccinated against COVID-19 has been relatively stable at around one-quarter of respondents. As in previous surveys, respondents who have not been vaccinated against COVID-19 are most concerned about the safety of vaccines, and more than half of them also believe that there is too much pressure regarding vaccination. Just over a half of respondents agree with the statement that the vaccine against COVID-19 can prevent a more severe course of the disease, which shows that the population's awareness of the benefits of vaccination against COVID-19 is still too low. Awareness and, consequently, readiness to be vaccinated are highest in the oldest age group, which was surveyed and is most at risk from COVID-19. 40.6% of the oldest respondents (65–74 years) are likely to be vaccinated against seasonal influenza.

➤ Compliance with isolation and quarantine and action in case of cold symptoms or respiratory infection

In case of cold symptoms or respiratory infection, the majority of people would react by self-testing for SARS-CoV-2 (72.1%). Upon contact with a person who tested positive for the SARS-CoV-2 virus, despite not developing symptoms themselves, 70.1% of people would get tested.

➤ Long COVID

After recovering from a COVID-19 infection, the most common problems reported by respondents are fatigue and lack of energy. The longest-lasting problems after infection last up to 3 months in just 60 of people and are more common among men. The problems reported by respondents most affect the field of leisure activities.

➤ Mental health

More than a fifth (22.1%) of respondents often or daily feel tense, stressed or under a lot of pressure. Such feelings are more common among women, in younger age groups, among those who report having a worse financial situation compared to the past. Compared to the previous survey iteration, the frequent or daily experience of stress increased the most among young people aged 18 to 29 (from 24.5% to 35.3%). Compared to the previous survey iteration, risky stress behaviour increased significantly among men, aged 18 to 20 and 30 to 49 years, the less educated, secondary school and university students, and the employed/self-employed.

➤ Treatment by a personal physician

The need for treatment by a personal physician increases with age, only 22.6% of respondents in the 65 to 74 age group did not need a personal physician in the last year. Among the respondents who needed a personal physician due to new or worsening of existing health problems, 60.2% stated that the treatment also included an examination in an outpatient clinic, 4.0% indicated contact with an alternate, on-call or emergency clinic. In their last experience with

a personal physician, 85.4% of the population believed that they were treated appropriately based on their state of health; respondents with mental health problems were less satisfied with the treatment.

RESULTS

Supporting current recommendations to control the spread of SARS-CoV-2 infections

Within days of the declaration of a coronavirus epidemic in Slovenia (12 March 2020), a number of measures were taken to limit the spread of SARS-CoV-2 infections, which varied according to the epidemiological situation in the country. At the end of May 2022, the Government adopted a decision on the expiry of the Ordinance on the temporary measures for the prevention and control of infectious disease COVID-19. Throughout the duration of the measures, as well as after their termination, there are recommendations for protecting health and preventing the spread of infections, which are also valid in the current epidemiological situation.

In August 2022, the Expert baselines and guidelines for preparedness and response to SARS-CoV-2 infections in the autumn-winter season 2022/2023 in Slovenia³ were prepared, according to which public health measures will be adapted according to the epidemiological situation. Five possible long-term scenarios for the evolution of the epidemic have been developed, linked to: virus characteristics, population susceptibility, social factors and pharmacological measures. The objectives are based on five pillars (vaccination, transmission control, testing and treatment, SARS-CoV-2 monitoring and contact reduction measures). Each pillar has specific recommendations relating to the baseline (Phase 1) and the escalation phase (Phase 2). From 22 July 2022, we are in Phase 1, which aims to protect the most vulnerable groups of the population in order to prevent an increase in the number of people with the more severe form of COVID-19. Measures aimed at limiting the spread of the SARS-CoV-2 virus are recommended, but do not interfere significantly with the daily lives of most individuals.

Between 18 October and 21 October 2022, we asked respondents how supportive they were of the current recommendations. The highest proportion of people support effective ventilation in educational institutions (79.0%), isolation for people with confirmed SARS-CoV-2 infection (74.5%). Just under two-thirds of people support the use of masks in health care facilities, pharmacies and homes for the elderly (65.8%) and that masks should not be used in education process (63.0%). Respondents expressed the lowest level of support for the use of masks in public enclosed spaces (42.9%) and the use of the Ostani zdrav app in colleges and universities (35.2%). Most of the current recommendations are least supported by the respondents in the 18–29 age group, and most supported by the respondents in the 65–74 age group. There is strong support in the 65–74 age group for the recommendation to use masks in enclosed public spaces (64.6%) and to use the Ostani zdrav application in colleges and universities (55.9%) (Figure 1).

³

https://www.njz.si/sites/www.njz.si/files/uploaded/strokovna_izhodbisca_in_usmeritve_za_pripravljenost_in_odzivanje_na_okuzbe_z_virusom_sars-cov-2.pdf.

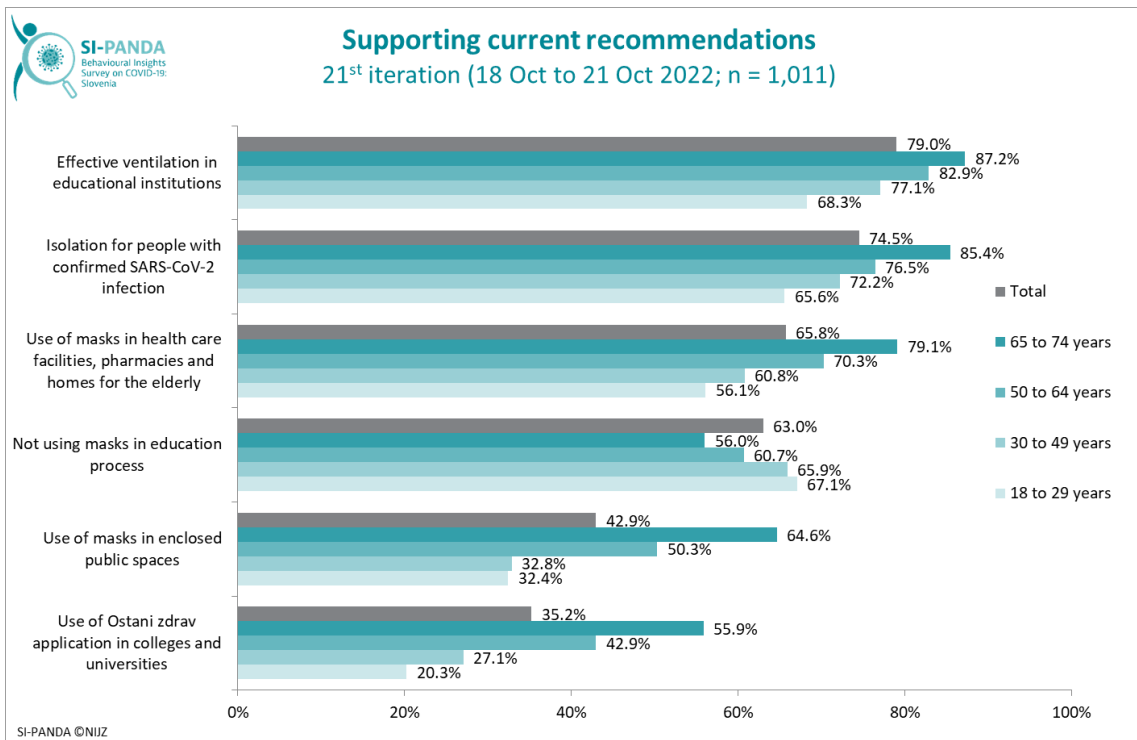


Figure 1: Supporting current recommendations, total and by age groups.

As expected, the current recommendations are supported more by people who were vaccinated against COVID-19. Unvaccinated people are statistically significantly more likely to support the recommendation not to use masks in education process (73.9%) than vaccinated people (58.6%) (Figure 2).

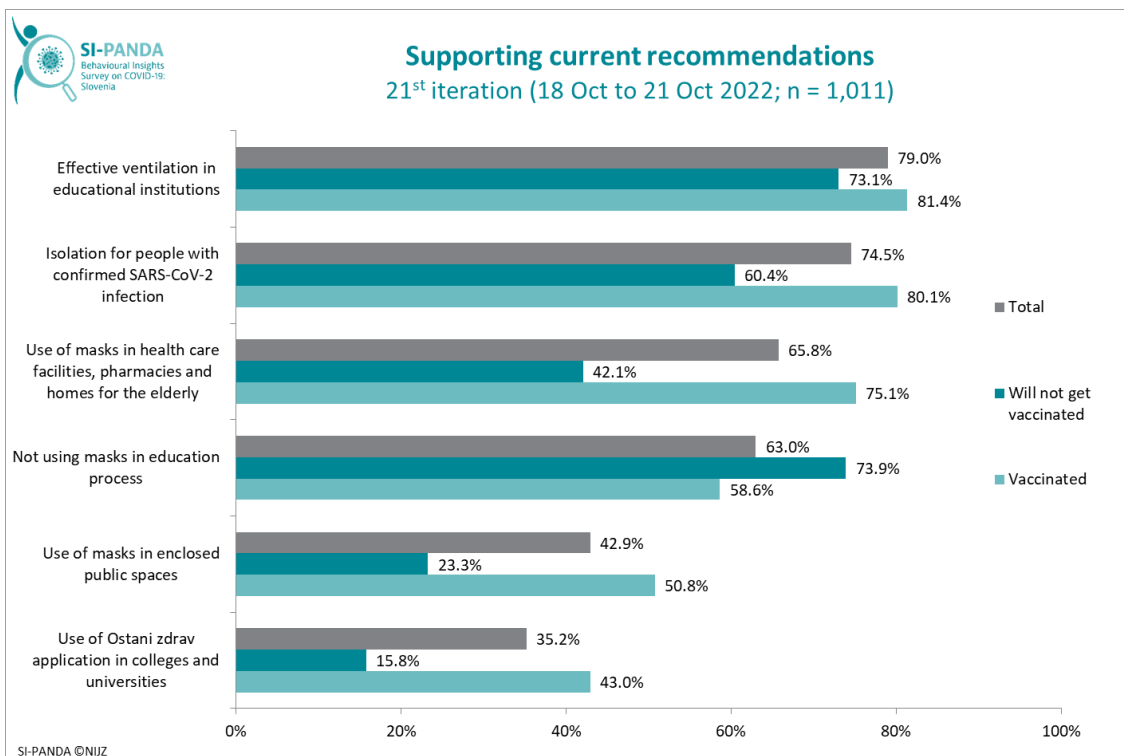


Figure 2: supporting current recommendations, total and by vaccination status.

During the COVID-19 epidemic, the medical profession promoted working from home to limit the transmission of SARS-CoV-2 within work organizations among employees, as enclosed spaces where large numbers of people congregate for long periods of time are ideal for the spread of the virus. According to epidemiologists at the time, this was one of the key measures to slow down the spread of the virus. At the start of the SI-PANDA survey in December 2020, (2nd iteration), a third of people had worked from home in the last seven days and almost half worked from home at least occasionally, indicating that employers encouraged this type of work and that employees used it to a significant extent. The share of people working from home has subsequently varied over the survey iterations, decreasing by 20 percentage points in the 17th survey iteration one year ago (October 2021) compared to the 2nd survey iteration. According to the 21st survey iteration, the proportion of people working from home is only 10.1%, However, around 12% of the respondents in both the 17th and 21st survey iterations mixed work at workplace and work from home, suggesting that this mode of working had persisted to some extent after COVID-19 pandemic (Figure 3). However, according to the 21st SI-PANDA survey iteration, statistically significantly more women (14.3%) than men (6.6%) worked from home.

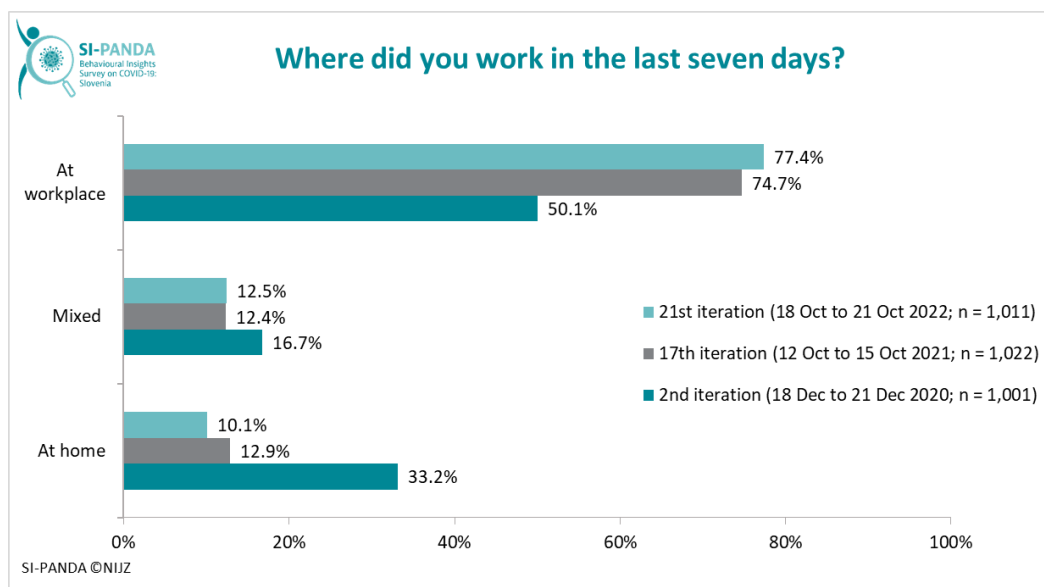


Figure 3: Performing work in the last 7 days, total and by 2nd, 17th and 21st survey iteration.

Vaccination against COVID-19

In the 21st SI-PANDA survey iteration, more than 71% of the respondents answered that they had already been vaccinated against COVID-19. Similarly, data from the Electronic Registry of Vaccinated Persons (*s/ov. elektronski register cepljenih oseb – eRCO*) show that 70% of adults have received at least one dose of COVID-19 vaccine by 18 November 2022. 24.3% of the respondents responded that they had received the core vaccination, 35.4% of the respondents responded that they had received the first booster dose, and 4.9% reported that they had received the second booster dose (Figure 4). According to eRCO, by 18 November 2022, 38% of the adult Slovenian inhabitants had been vaccinated with first booster dose and 4% with the second booster dose. In the 21st survey iteration, 26.6% of respondents report that they do not intend to be vaccinated against COVID-19. The proportion of persons who do not intend to be vaccinated against COVID-19 has remained relatively stable in the most recent iterations of the SI-PANDA survey, hovering around one-quarter of the respondents. This proportion is lower than just over a year ago in the 14th survey iteration, which took place from 6 July to 9 July, when the share of people who do not intend to be vaccinated was 37.6%. 1.8% of respondents did not vaccinate due to health reasons.

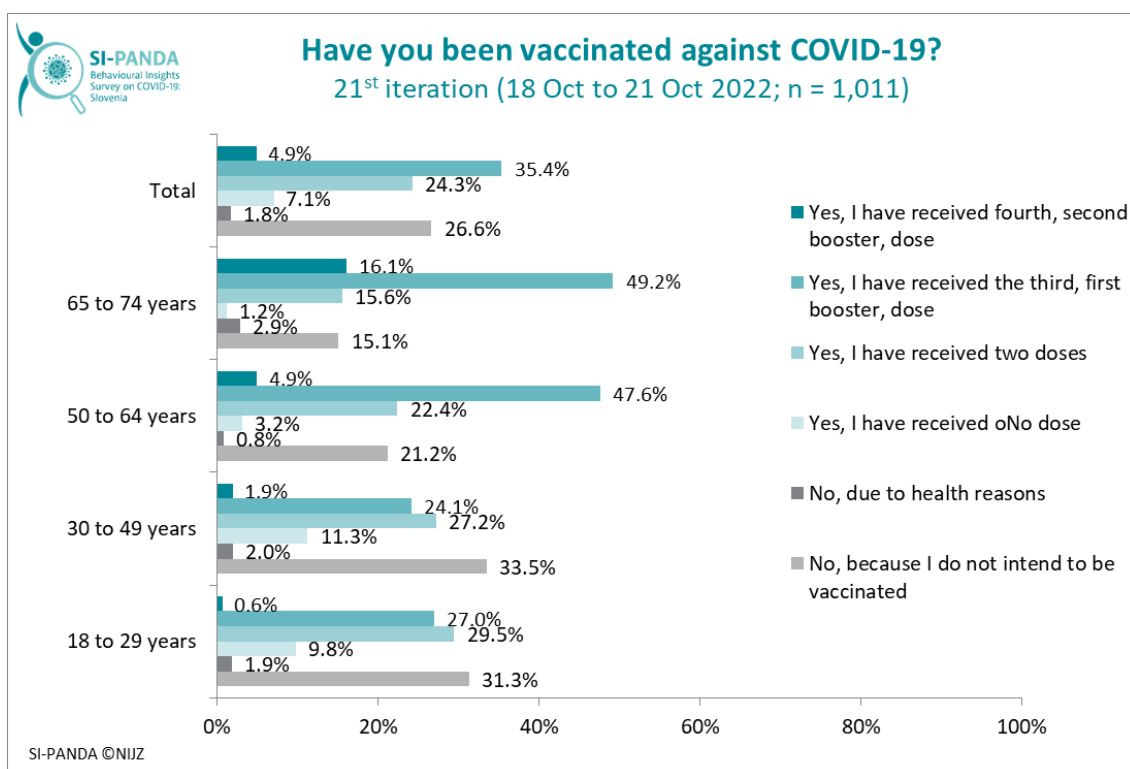


Figure 4: Vaccination against COVID-19, total and by age groups

More than half (51.9%) of the respondents agreed that the COVID-19 vaccine can prevent the more severe course of COVID-19, 13.0% were undecided and over a third (35.1%) of respondents disagreed. The proportion of people who believe that the vaccine can prevent a more severe course of the COVID-19 is the highest in the 65 to 74 age group (72.9%), and the lowest in the 30 to 49 age group, where less than a half (42.6%) of respondents agree with the statement (Figure 5). This also coincides with the results shown in the previous figure (Figure 4), where the proportion of people who do not intend to be vaccinated is the highest in the 30 to 49 age group, while the proportion of the vaccinated is the highest in the oldest age group (65 to 74 years).

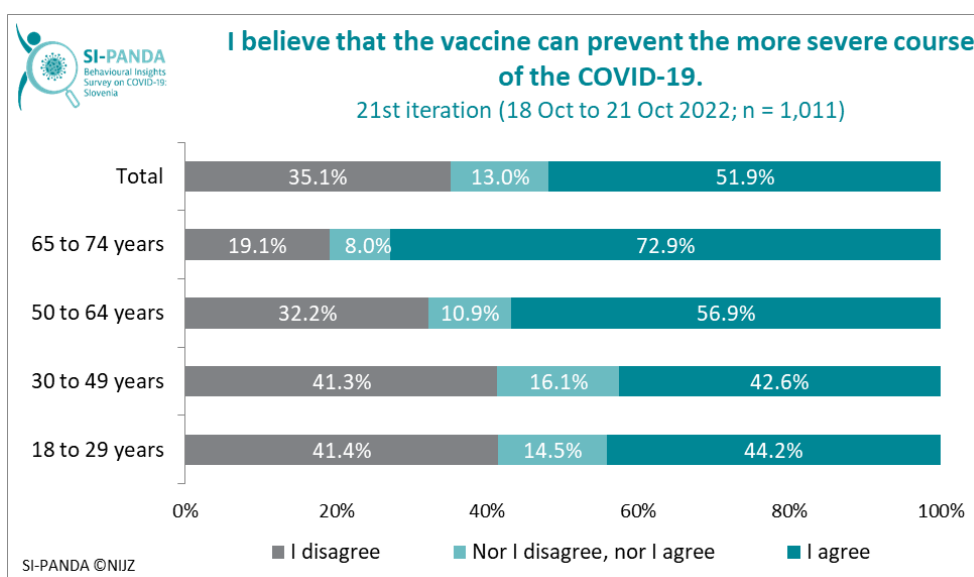


Figure 5: Opinion on whether vaccination can prevent more severe course of the disease, total and by age groups.

34.6% of respondents believe that vaccination against COVID-19 is not necessary and that it is better to get over the disease naturally. This point of view was again most common in the 30 to 49 age group, in which a good third of respondents (40.5%) agreed with the statement. The fewest respondents agreed with the statement in the oldest age group (65 to 74 years), in which only a poor fourth (23.2%) believe that vaccination against COVID-19 is not necessary and that it is better to get over the disease naturally (Figure 6).

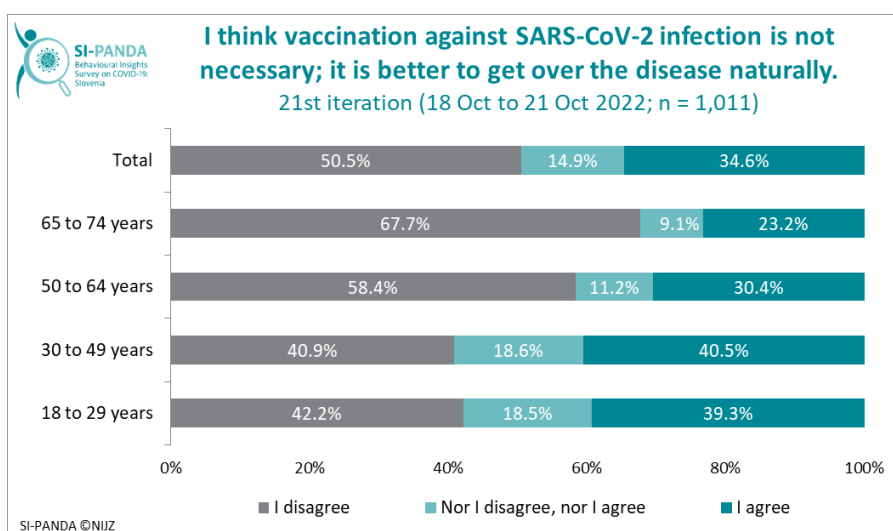


Figure 6: Opinion on whether it is better to get over the disease naturally, total and by age groups.

In the 21st survey iteration, respondents were asked again about the factors that influenced or would influence their decision to be vaccinated against COVID-19. As in previous iterations of the survey, the 21st iteration showed that, on average, respondents were most likely to agree that their decision to vaccinate depended / will depend on whether there was / is enough information available that the vaccine is safe and effective (average score on the 7-point scale for safety is 4.4 and 4.3 for effectiveness). The decision was / is also influenced by whether the vaccine has been in use for a long time and the magnitude of the risk of SARS-CoV-2 infection at the time of

vaccination. On average, respondents were least likely to agree that the decision to vaccinate depended or will depend on the recommendations of the Ministry of Health, recommendations from a personal physician, on accessibility of vaccination and on whether the vaccine is also used in other countries. Compared to the previous survey, in the 21st iteration, respondents on average gave less weight to the recommendations of the National Institute of Public Health when deciding whether to vaccinate (average score on a 7-point scale is 3.5, compared to the 3.8 in the 20th survey iteration), even ahead of the recommendations of their personal physician (Figure 7).

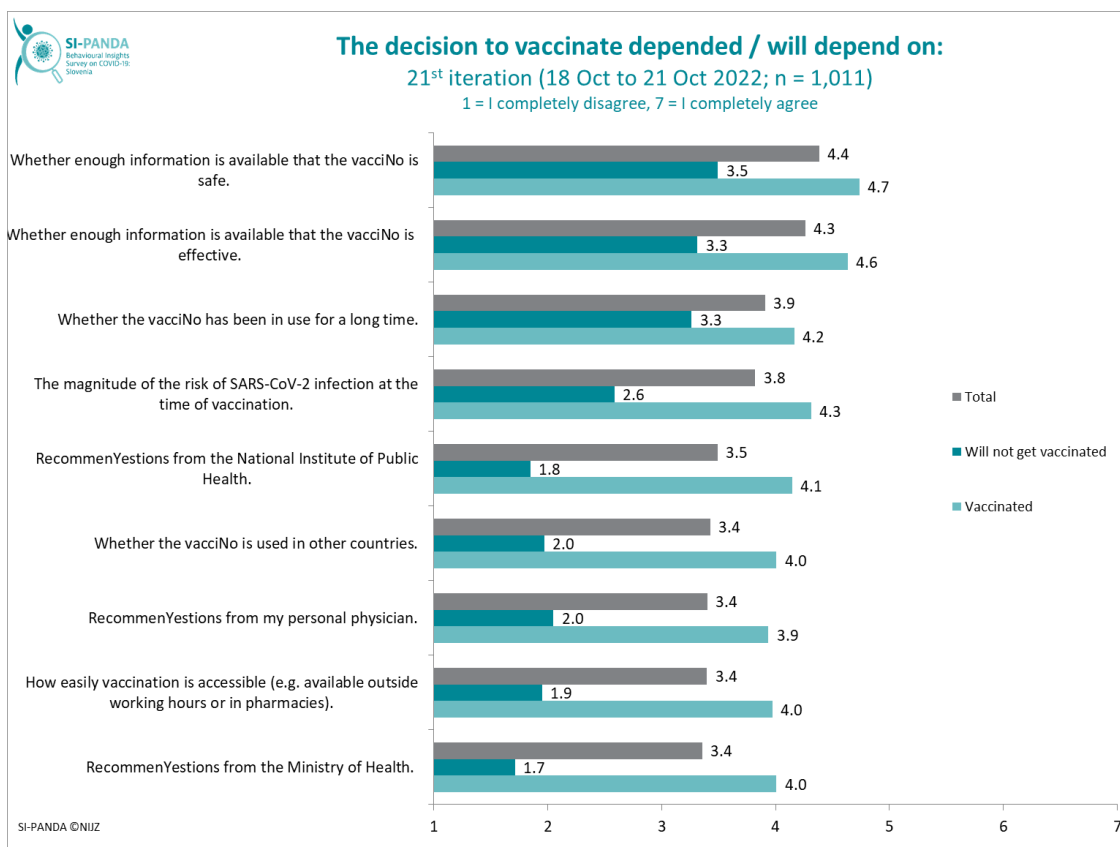


Figure 7: What the decision to vaccinate against COVID-19 depends on, total and by vaccination status.

In general, 37.8% of respondents believe that everyone should be vaccinated according to the national vaccination programme, regardless of the SARS-CoV-2 virus. In the 65–74 age group, 52.3% of respondents feel this way, while in the 30–49 age group, less than a third (29.9%) of respondents feel this way (Figure 8). All the indicated proportions decreased compared to the previous survey iteration (20th iteration), when 43.4% of the respondents believed that, in general, everyone should be vaccinated according to the national vaccination programme, regardless of the SARS-CoV-2 virus.

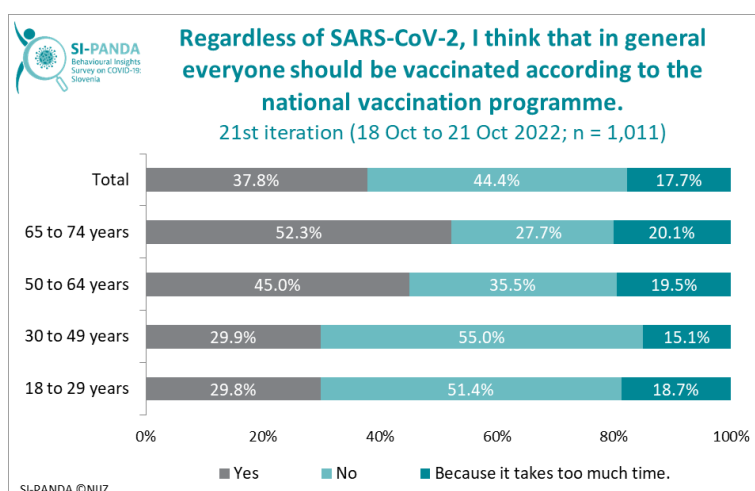


Figure 8: Opinion on vaccination in accordance with the national vaccination programme, total and by age groups.

People who had received primary doses of vaccine against COVID-19 (24.3%) were asked how likely they were to be vaccinated with the first booster dose against COVID-19: 21.7% reported they were likely to be vaccinated and 62.7% reported they were unlikely to be vaccinated with the first booster dose against COVID-19. People who had received the primary doses of vaccine were asked about their reasons for not receiving the third dose (the first booster dose). More than half of respondents (53.0%) thought that the booster dose would not give them additional protection, 41.2% of persons were concerned about the long-term health effects. A good quarter (27.8%) was concerned about the side-effects of the booster dose, 27.2% of persons indicated that they had side effects after the previous vaccinations against COVID-19, a poor fifth of respondents (18.7%) were not sure that the booster dose is even recommended for them, and 17.2% felt that the first two doses gave enough protection (Figure 9). Respondents could give several reasons why they would not be vaccinated with the third dose (the first booster dose).

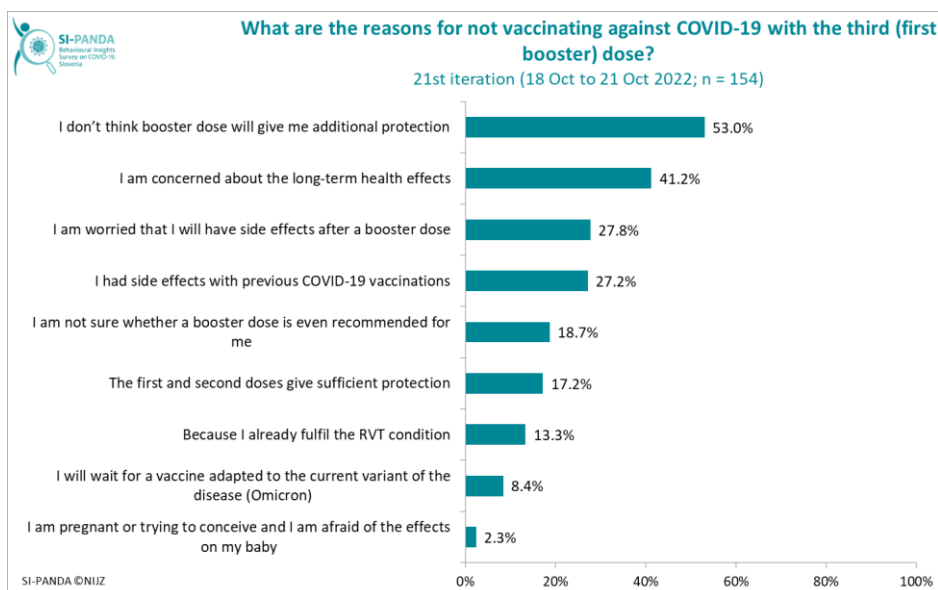


Figure 9: Reasons against vaccination with a third dose of COVID-19 vaccine among persons who received first two doses of COVID-19 vaccine and who are unlikely to be vaccinated with a third dose of COVID-19 vaccine, total.

Note: Several answers were possible

Those who reported having received a third dose (first booster) of COVID-19 vaccine (35.4%) were asked how likely they were to be vaccinated with a second booster dose (fourth dose) of COVID-19 vaccine. 51.9% indicated that they were likely to be vaccinated, and 29.8% indicated that they were unlikely to be vaccinated with a second booster dose of COVID-19 vaccine. These were asked about their reasons for not receiving a fourth (second booster) dose of COVID-19 vaccine. A good half of the respondents (52.5%) felt that a booster dose would not give them additional protection, 36.9% were concerned about long-term health effects, and 24.7% of respondents were not sure whether a booster dose is even recommended for them (Figure 10). Respondents could give several reasons why they would not be vaccinated with the fourth dose (the second booster dose).

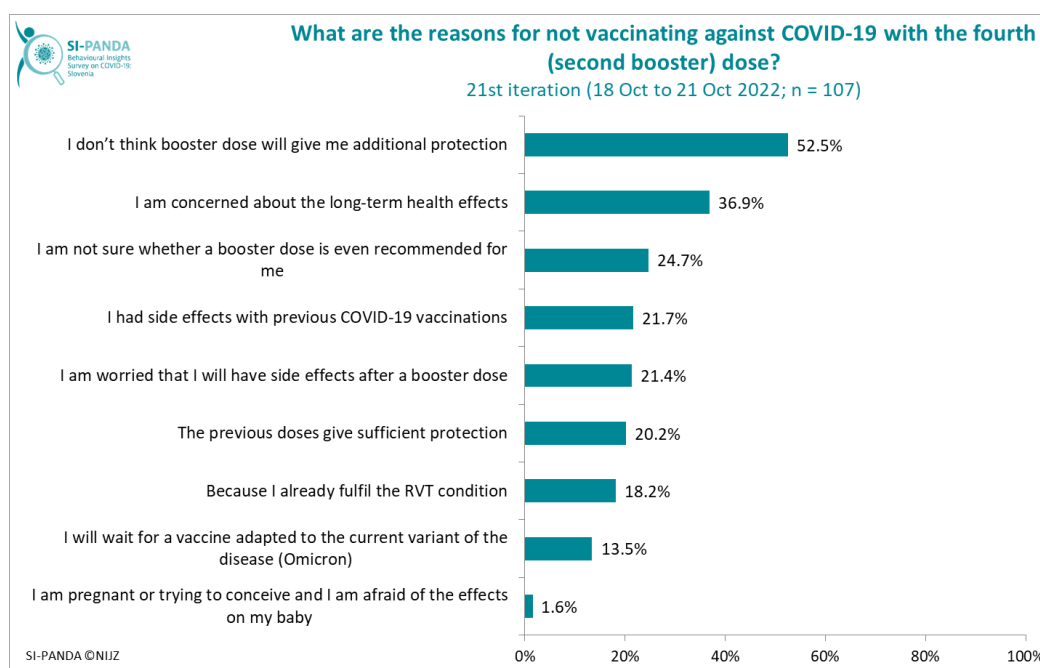


Figure 10: Reasons against vaccination with a fourth dose of COVID-19 vaccine among persons who received first two doses of COVID-19 vaccine and are not likely to be vaccinated with the fourth dose of COVID-19 vaccine, total.

Note: Several answers were possible.

Respondents who had already been vaccinated (71%) reported that their main reasons vaccinating were to prevent a more severe course of the disease or its consequences (54.4%), to protect the health of their loved ones (52.2%), and to protect their own health (50.5%) (Figure 11).

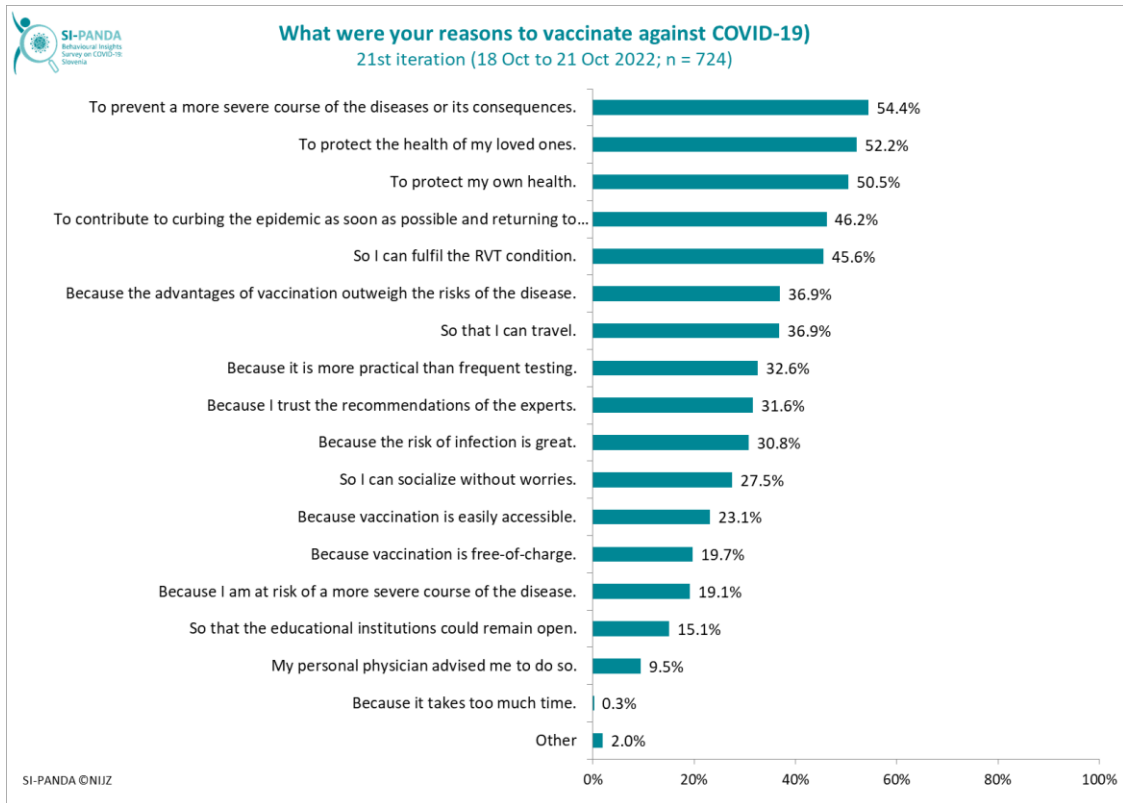


Figure 11: Reasons why vaccinated persons were vaccinated against COVID-19, total.

Note: Several answers were possible

In the 21st survey iteration, non-vaccinated persons (28.4%) were also asked for more detailed reasons why they did not intend to be vaccinated. As in previous iterations, in the 21st iteration, the main reasons were concerns about side effects after vaccination, concerns about the long-term impact on health, and the perception that the vaccine is not safe. More than half of these respondents still believe that there is too much pressure regarding vaccination. Around a third of the respondents believe that the vaccine will not work (34.1%) or that they are worried about the impact of the vaccine on their current health status (33.4%) (Figure 12).

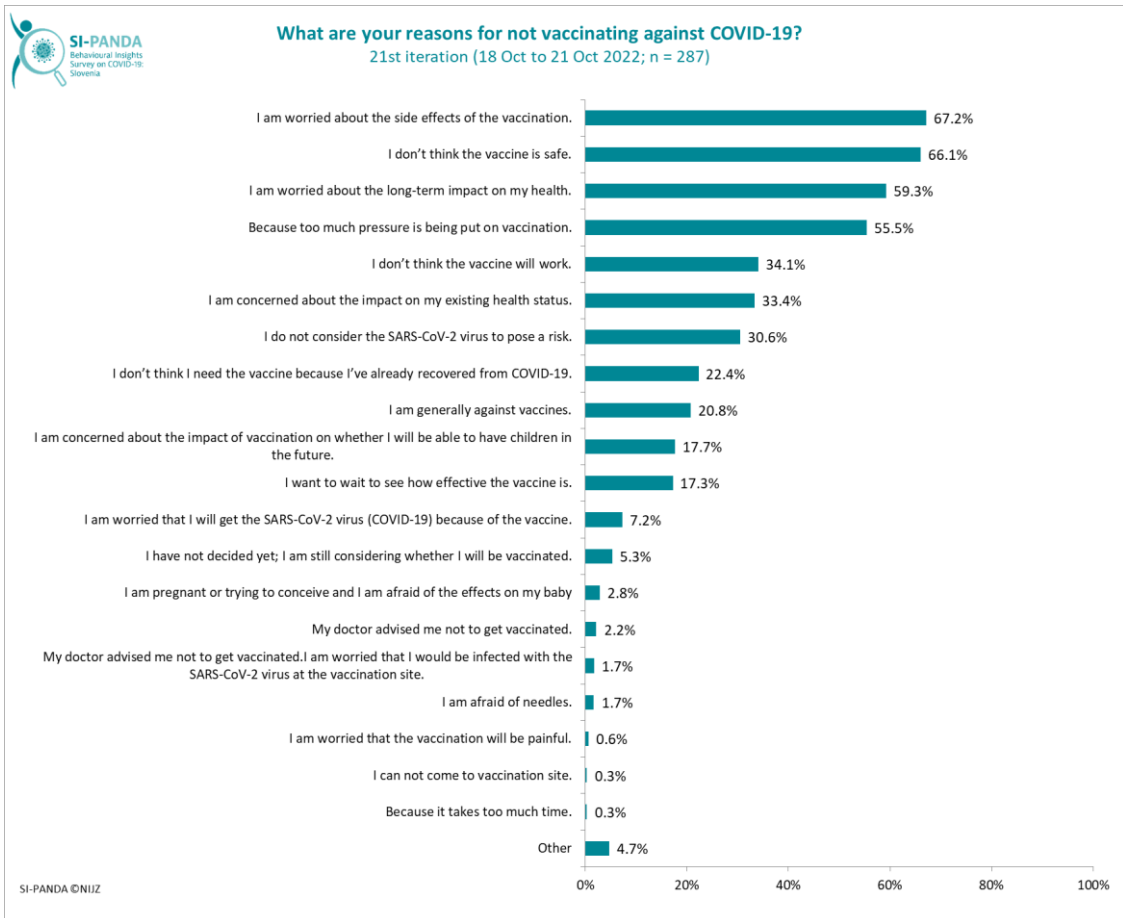


Figure 12: Reasons why unvaccinated persons are not vaccinated against COVID-19, total.
Note: Several answers were possible.

Vaccination against seasonal influenza

Considering that it is time of vaccination against seasonal influenza, we also sked the respondents how likely it is that they will be vaccinated against seasonal influenza in the 2022/23 season. 18.0% of respondents answered that they are likely to be vaccinated against influenza. The proportion of respondents who are likely to get vaccinated against seasonal influenza was the highest in the oldest age group (65 to 74 years), where as many as 40.6% of respondents are likely to get vaccinated. This share was significantly lower for younger age groups and was only 5.7% for respondents aged 18 to 29 (Figure 13).

Despite the above, these results are encouraging, as the proportion of people who answered that they are likely to get vaccinated against the seasonal influenza is higher than influenza vaccination rates in previous seasons, according to data reported by vaccination providers. Only 8.1% of the Slovenian population was vaccinated against seasonal influenza in the 2021/22 season, or 24.5% of the population in the age group of 65 and over.

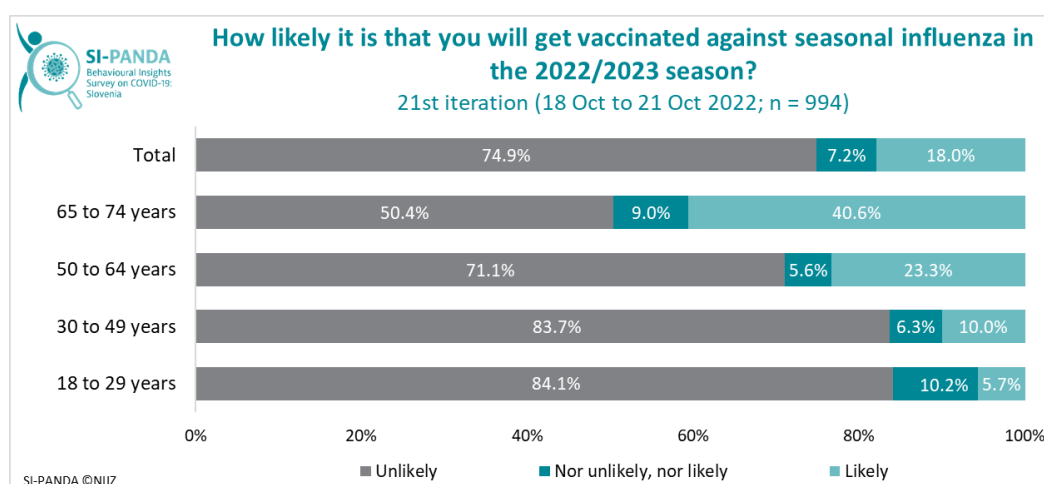


Figure 13: Vaccination against seasonal influenza in 2022/2023 season, total and by age groups.

Compliance with isolation and quarantine and action in case of cold symptoms or respiratory infection

In 21st iteration of the survey, we were interested in how people would act if they had cold symptoms or respiratory infection. Respondents could select several possible answers to this question. The majority (72.1%) indicated that they would self-test for SARS-CoV-2. Poor third of people stated that they would wait to see how the symptoms develop and a quarter would self-isolate. A fifth of people would call their personal physician, less than a fifth would inform their high-risk contacts about their symptoms or go for testing at an official testing site. Only 3.4% of people would not do anything with cold symptoms or respiratory infection (Figure 14).

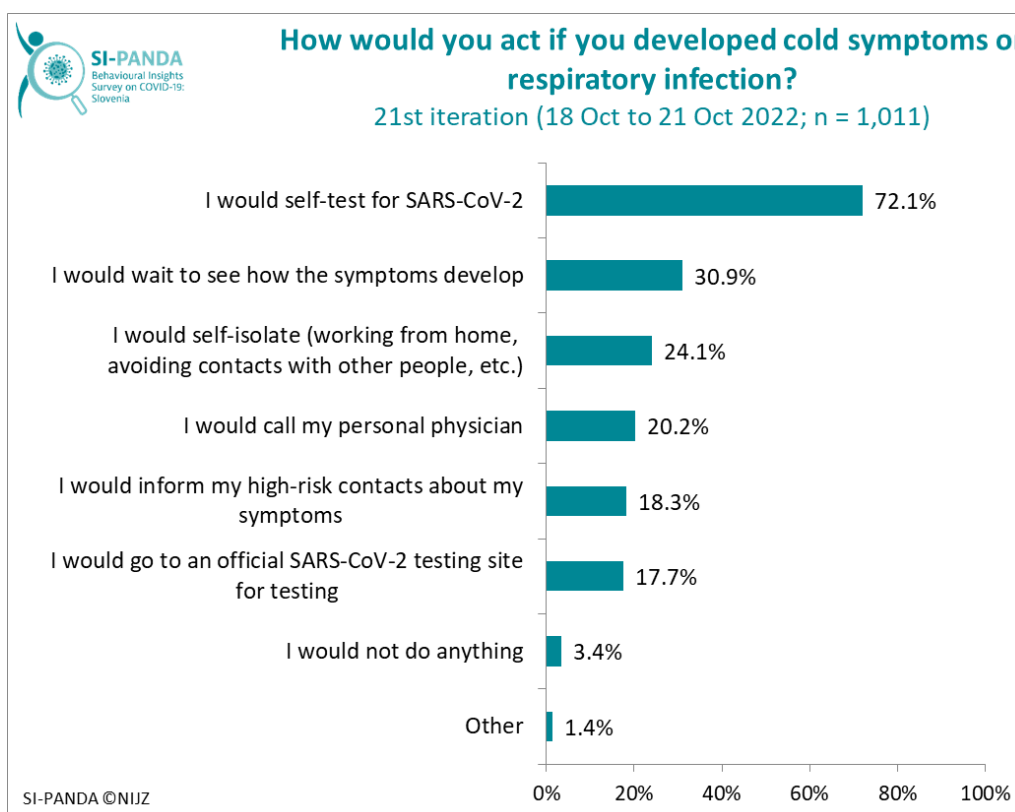


Figure 14: Acting in case of cold symptoms or respiratory infection, total.

Note: Several answers were possible.

As many as 66.5% of people answered in the affirmative to the question whether they would get tested if they had been in contact with someone who had tested positive for SARS-CoV-2 and had not developed symptoms themselves. A statistically significantly higher proportion of people who have at least one chronic disease would get tested when in contact with an infected person, despite not developing symptoms (71.5%) compared to people without chronic diseases (63.6%) (Figure 15).

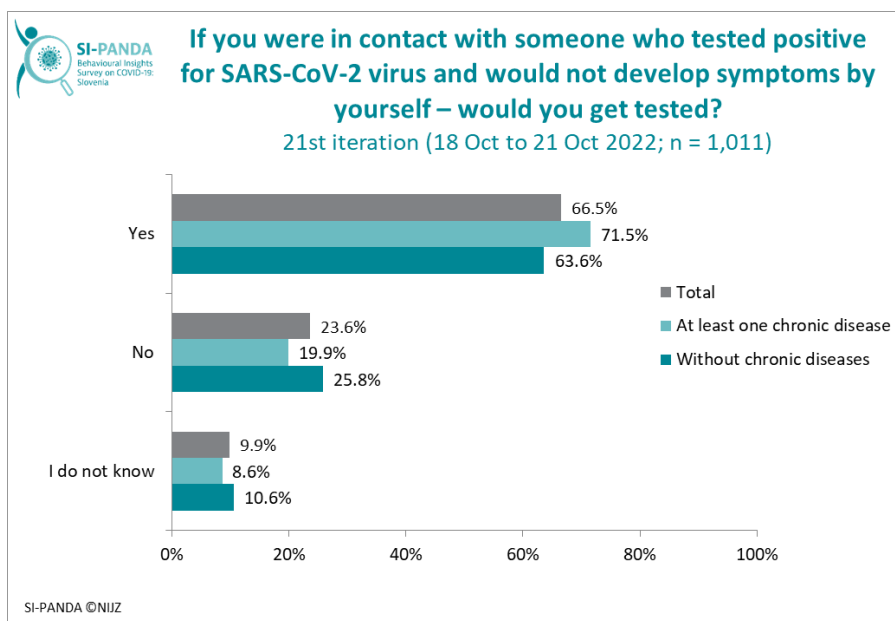


Figure 15: Decision for testing in case of a contact with SARS-CoV-2 infected person, total and by the presence of chronic disease.

Problems after recovering from infection with the SARS-CoV-2 virus – post-COVID syndrome or long COVID

Most people who contract COVID-19 recover completely within a few weeks of the onset of the disease. However, research shows that in some people individual problems may persist long after SARS-CoV-2 infection, or may disappear and reappear (same or different problems) several weeks or months after the initial recovery. Abroad, these problems have been called post-acute COVID-19, post-COVID syndrome or long COVID. It is more common among patients with a more severe course of the disease and older patients, but also occurs in those who have overcome a milder form of the disease and also among young adults who had no health problems before the infection⁴. The symptoms of long COVID are diverse: the most common are fatigue, shortness of breath, insomnia, problems with memory and concentration (the so-called “Brain fog”), heart palpitations (an unpleasant feeling of the heartbeat), pain in various body parts, diarrhoea, nausea, etc.⁵.

In the 21st SI-PANDA survey iteration, just under half of the respondents reported having been or currently being infected with SARS-CoV-2 (49.5%). The proportion of persons who have never been infected with the SARS-CoV-2 virus is statistically significantly higher in persons aged 65 to 74 (69.5%) compared to persons under 65 years of age. In the 18–29 age group, 37.3% of respondents report that they have not yet been infected with the SARS-CoV-2 virus, in the 30–49 age group there is 43.4% of such persons and in the 50–64 age group 56.6%. Slightly more than 62% of persons in the youngest age group (18 to 29 years) were infected at least once, while among the oldest (65 to 74 years) there is 30.5% those who were infected at least once (Figure 16). Among those who have already been infected with the SARS-CoV-2 virus, or are currently recovering from the infection, 72.2% of people were infected once, 25.4% of people were infected twice, 1.6% of the respondents were infected three times, and less than one percent (0.8%) of respondents were infected four or more times.

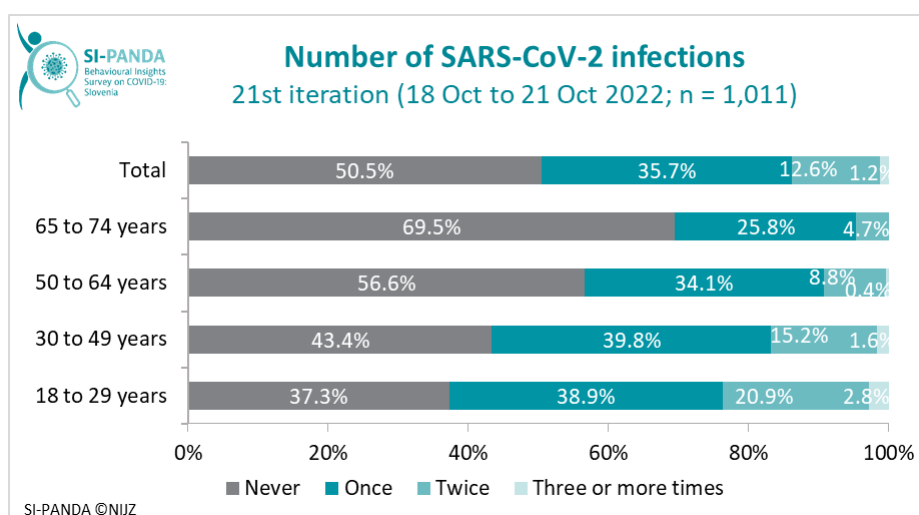


Figure 16: Number of SARS-CoV-2 infections, total and by age groups.

The first (or only) infection with the SARS-CoV-2 virus was asymptomatic or mild in the majority (76.5%), while 23.5% of persons reported a more severe course of the disease, which in some

⁴ Brackel, CLH, Lap, CR, Buddingh, EP, et al. Pediatric long-COVID: An overlooked phenomenon? *Pediatric Pulmonology*. 2021; 56: 2495–502. <https://doi.org/10.1002/ppul.2552>.

⁵ Nalbandian, A., Sehgal, K., Gupta, A. et al. Post-acute COVID-19 syndrome. *Nat Med* 27, 601–15 (2021). <https://doi.org/10.1038/s41591-021-01283-z>.

cases also required hospital treatment. The course of the second infection was described by the vast majority (87.4%) as asymptomatic or mild, and by 12.6% as more severe, but none of the respondents required hospital treatment (Figure 17).

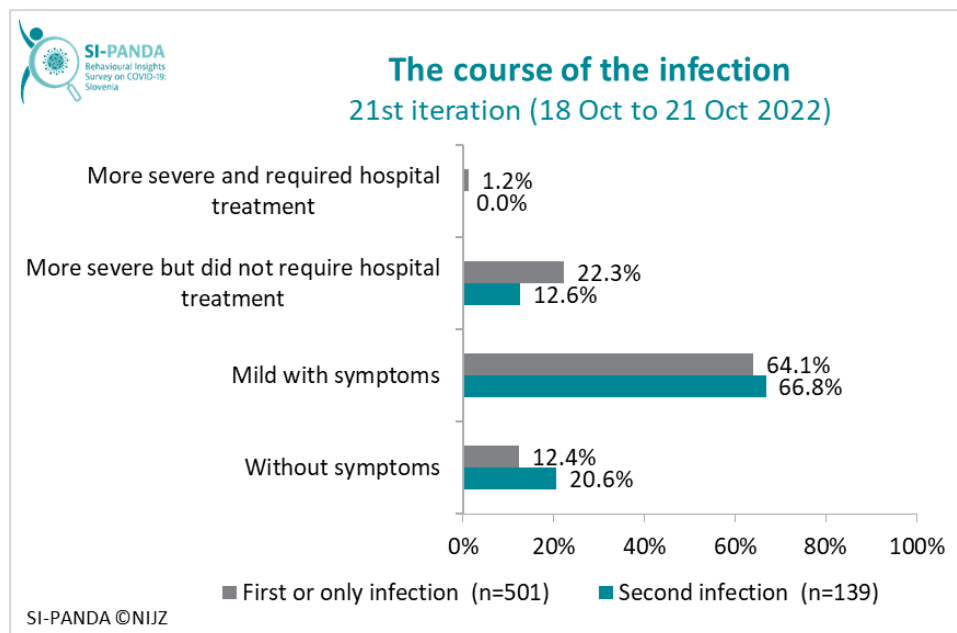


Figure 17: The course of SARS-CoV-2 virus infection.

We were interested in whether the course of the infection depended on which variant of the SARS-CoV-2 virus the respondents were infected with. We ask the respondents in which month they were infected with the SARS-CoV-2 virus and thus obtain information in which time period they were infected. We further explain the scenario used to determine the prevalent variant of the SARS-CoV-2 virus upon infection. Since March 2020, when we discovered the first case of infection with the SARS-CoV-2 virus in Slovenia, several variants of the virus have been identified until today. According to National Laboratory of Health, Environment and Food (NLZOH), since the emergence of the virus in our country, there have been four predominant variants, which have occurred in different time periods⁶. Based on the NLZOH data on the predominant SARS-CoV-2 virus variants, four time periods were created according to the prevalent SARS-CoV-2 virus variant (B.258.17 and previous variants, Alpha, Delta and Omicron). The period of the prevalent variant of the SARS-CoV-2 virus was determined when more than 60% of all studied infections were on the side of this particular variant. In the 21st SI-PANDA survey iteration, we asked the respondents about the month and year of infection (first or the only, second and third infection). Based on these data, we assumed that a single person infected with COVID-19 between March 2020 and March 2021 was infected at a time when B.258.17 and earlier variants were prevalent. People who were infected between April 2021 and June 2021 were classified in the Alpha variant group. People infected between July 2021 and December 2021 were classified in the group infected during the prevalent Delta variant. Those infected from January 2022 onwards were classified as infected at the time of the prevalent Omicron variant (Table 1).

Table 1: Prevalent SARS-CoV-2 virus variant during the observation period from March 2020 to the present.

Observed period	Prevalent SARS-CoV-2 virus variant
March 2020 – March 2021	B.258.17 and previous
April 2021 – June 2021	Alpha

⁶ <https://www.nlzoh.si/objave/sledenje-razlicicam-sars-cov-2-61/>.

July 2021 – December 2021	Delta
January 2022 →	Omicron

A good quarter of persons were infected for the first time or only once during the period when the B.258.17 or previous variants were prevalent, 17.1% when the Delta variant was prevalent, and slightly over a half of respondents were infected for the first or only time, when the Omicron variant was prevalent. Only 2.6% of respondents were infected for the first time between April 2021 and June 2021, when the Alpha version was prevalent. In the second consecutive infection. Almost 90% of people were infected from January 2022 onwards, when the Omicron variant predominates among SARS-CoV-2 infections (Figure 18).

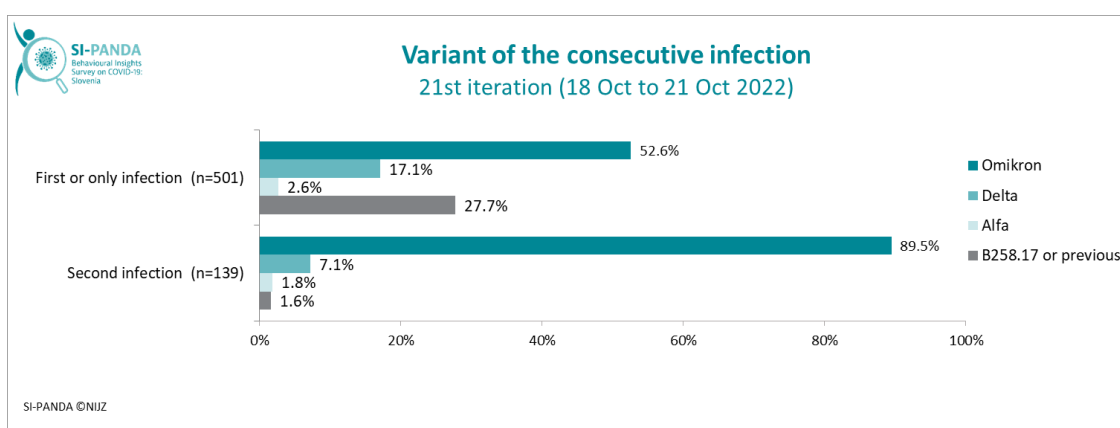


Figure 18: Prevalent SARS-CoV-2 virus variant, by consecutive infection.

According to the WHO, from 10 to 20% of people infected with the SARS-CoV-2 virus still have some health problems at least two months after infection, and one in ten recovered persons even after 12 weeks⁷. Thus, we were interested in whether the respondents had or have any of the listed problems (Figure 19) three months after recovering from COVID-19, it was possible to report several problems.

Just over 60% of respondents infected with the SARS-CoV-2 virus stated that three months after recovering from first or only infection they still had or have certain problems that lasted or they last at least two months, and there was about slightly less than a half (48.7%) of such people after recovering from the second infection. The most common long-term problem reported both after the first (or only) and after the second infection is fatigue and lack of energy (36.8% after the first infection, 30.8% after the second). The second most common problem after recovering from the first or only infection, was reduced physical capacity (25.7%), and muscle and joint pain (20.4%) and headache (20.2%) after recovering from the second infection (Figure 19).

⁷ WHO Policy brief 39 In the wake of the pandemic, Preparing for Long COVID, <https://apps.who.int/iris/bitstream/handle/10665/339629/Policy-brief-39-1997-8073-eng.pdf>
<https://www.who.int/europe/news-room/fact-sheets/item/post-covid-19-condition>

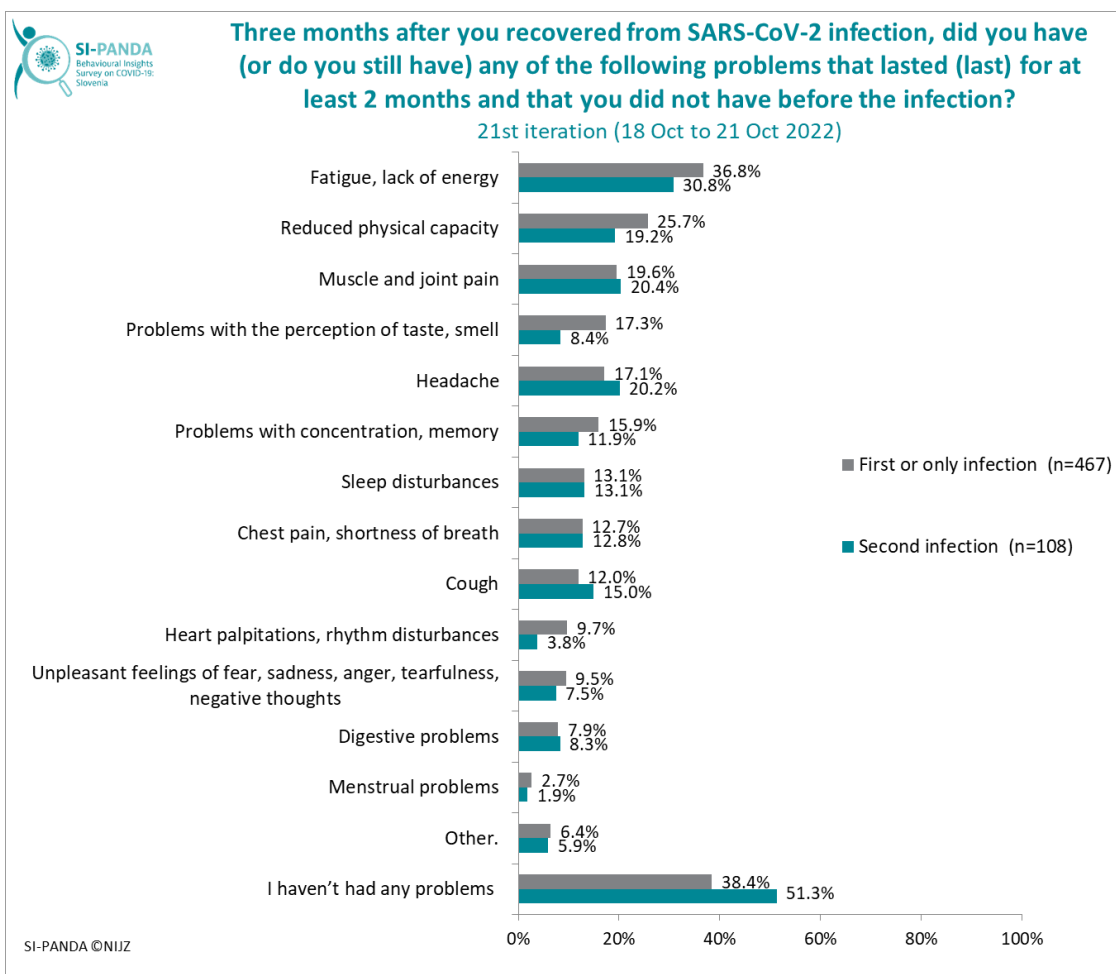


Figure 19: Health problems present three months after the infection, lasting at least two months among persons who have had an infection with the SARS-CoV-2 virus, total and by consecutive infection.

Note: Several answers were possible.

When asked how long the longest-lasting problem had lasted after the infection, just over half of the respondents answered that it lasted up to three months (58.5%), 21.1% had experienced such problems more than 6 months after the infection, and a good fifth from 3 to 6 months after the infection. Statistically significantly more men (68.0%) compared to women (49.1%) experienced problems after recovering from the infection lasting up to three months (Figure 20). A good third of people who stated that they have or had problems consulted a doctor due to the problems that occurred after recovering from SARS-CoV-2 infection. Statistically significantly more people with at least one chronic disease (47.3%) compared to people without chronic diseases (28.5%) consulted a doctor due to problems after recovering from the infection.

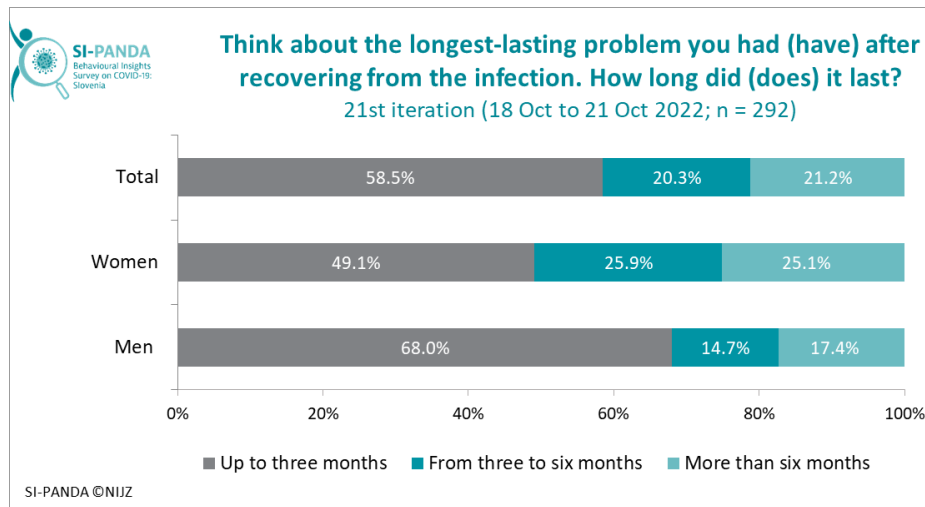


Figure 20: Duration of the longest-lasting problem after the infection, among persons who had at least one problem after recovering from the infection, total and by gender.

The problems that people had after recovering from the infections had the greatest impact on the area of performing leisure activities, as 78.5% of people report that the problems after recovering from infections had impacted their leisure activities slightly, very or extremely. Approximately three quarters of people stated that the problems at least slightly impacted their well-being and interpersonal relationships, area of work and job, and care for home and family (Figure 21). Statistically significantly more women report that the problems had very impacted their care for home, family, children and household chores, as well as their well-being and interpersonal relationships.

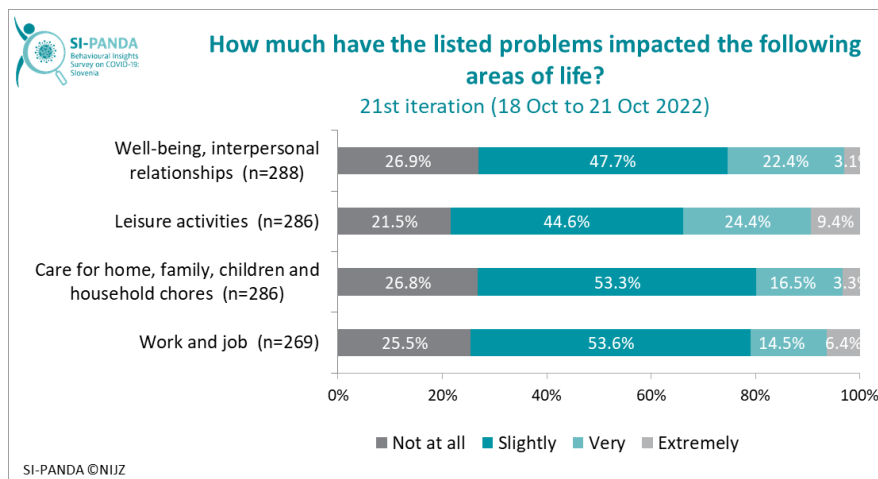


Figure 21: The impact of problems after recovering from SARS-CoV-2 infection on different areas of life among persons with at least one problem after recovering from the infection, total.

The consequences of recovering from and infection with SARS-CoV-2 virus can affect various areas of a person's life. On the one hand, these are a mild and non-specific health problems, but on the other hand, they are often quite complex and still receive insufficient attention from the profession, both from a research and a clinical point of view.

Much is still unknown about the causes and long-term consequences of SARS-CoV-2 infection, but research is ongoing. It is already clear that post-COVID syndrome is relatively common and

has a significant impact on an individual's ability to work and their daily life. All this can have economic consequences for the individual, their family and society as a whole.

In Slovenia, there are already specialized clinics for people who have long-term health problems after recovering from COVID-19. Most patients with problems after recovering from COVID-19 are treated in the outpatient department of the Infection Clinic. Patients with consequences of the diseases are cared for at the URI Soča and as part of the outpatient clinic for lung diseases and allergies at the University Clinical Centre Ljubljana. Rehabilitation of patients with long-COVID also takes place at the primary level, within Health Promotion Centres in Community Health Care Centres.

Most people with COVID-19 recover relatively quickly. Given that research shows that the risk of long-term health problems after SARS-CoV-2 infection is not so low, vaccination against COVID-19 is also important in this respect. More campaigns are therefore needed to promote vaccination against COVID-19 and to make people aware of the positive effects of vaccination. In order to prevent and limit the transmission of infection, it is also important to follow the recommendations for health promotion and disease prevention in the current epidemiological situation since no one is safe from the consequences of an infection.

Experiencing stressful events and coping with them

We recognize and experience stress, tensions and pressures in our lives in different ways. Over time, the experience of stressors, the stress reaction and the intensity change, and the stress reaction can be present in the form of feelings of tension, vulnerability or fear. Most people cope easily with everyday stressful events. But some people experience stress very often and at the same time they are unable to cope with it. This is when we talk about risk stress behaviour, which is associated with many negative consequences for health and quality of life⁸. In recent years, we have seen the emergence of new challenges and significant changes in the prevalence of both known and new stressors. The COVID-19 pandemic has particularly highlighted the importance of stress management for maintaining mental health, research shows that most people are successful in adapting to new stressors in our environment. At the same time, they also point about that this is not the case for everyone and that we need to provide adequate support to those who are not able to do so, and to design appropriate approaches for stressors that change over time in terms of their prevalence or the intensity of their impact on the population⁹.

In the 21st survey iteration, we asked how often adult respondents had felt tense, stressed or under a lot of pressure in the last 14 days, and how they coped with tension, stress and pressure. We find that 22.1% feel tense, stressed or under a lot of pressure often or on a daily basis, which is slightly more than in the 20th iteration, when the percentage was 18.9%, and approximately the same as one year ago (2021 in the 17th iteration, where there were 21.7% of such respondents). In the 21st survey iteration, over a third (36.6%) of persons feel tense or stressed occasionally and less than a third (29.3%) very rarely (Figure 22). The proportion of people who feel tense, stressed or under a lot of pressure often or daily is higher for women than for men; it is the highest in younger age groups. Experiencing stress significantly increased between the 20th and 21st iteration among men and in the youngest age group – from 18 to 29 years old. For the latter, we not a significant increase in the daily or frequent experience of stress from 24.5% (20th iteration) to 35.3% (21st iteration).

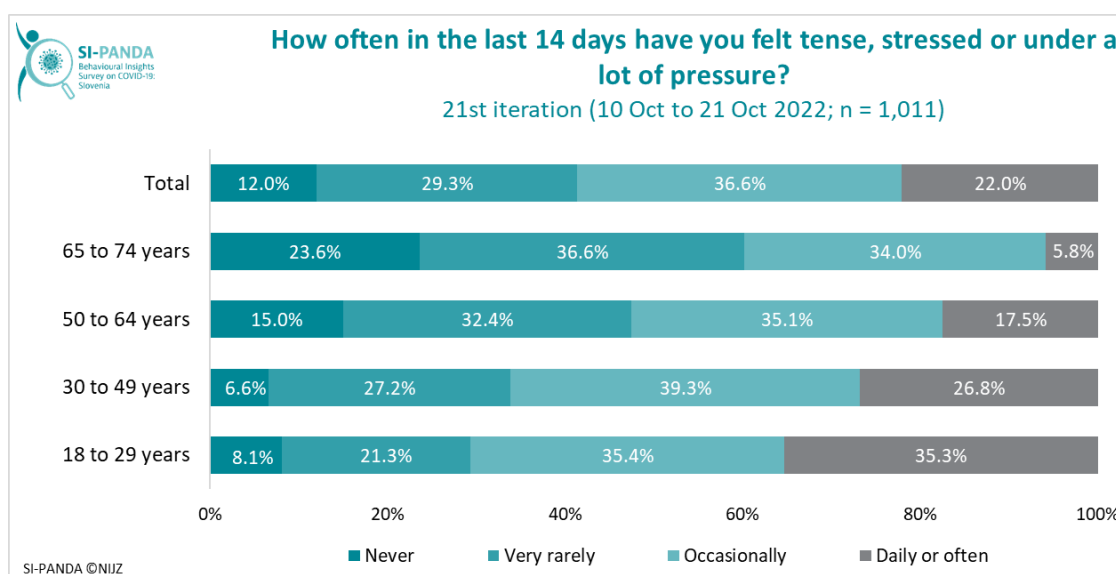


Figure 22: The frequency of experiencing stress in the last 14 days, total and by age groups.

⁸ Barry V, Stout ME, Lynch ME, et al. The effect of psychological distress on health outcomes: A systematic review and meta-analysis of prospective studies. *Journal of Health Psychology*. 2020; 25(2): 227–39. <https://doi.org/10.1177/1359105319842931>.

⁹ Fu, S. (Q.), Greco, L. M., Lennard, A. C., & Dimotakis, N. (2021). Anxiety responses to the unfolding COVID-19 crisis: Patterns of change in the experience of prolonged exposure to stressors. *Journal of Applied Psychology*, 106(1), 48–61. <https://doi.org/10.1037/ap0000855>.

Most respondents (80.6%) manage tension, stress and pressure with some effort or easily. A minority (5.9%) reports that they do not control them or control them with a great effort, and 13.5% report that they control them with greater effort (Figure 23). There were no significant differences in stress management between genders, educational attainment and age groups in 20th iteration, however in the 21st iteration, women report worse stress management compared to men. In addition, respondents in the 18 to 29 age group handle manage stress worse than respondents in other age groups.

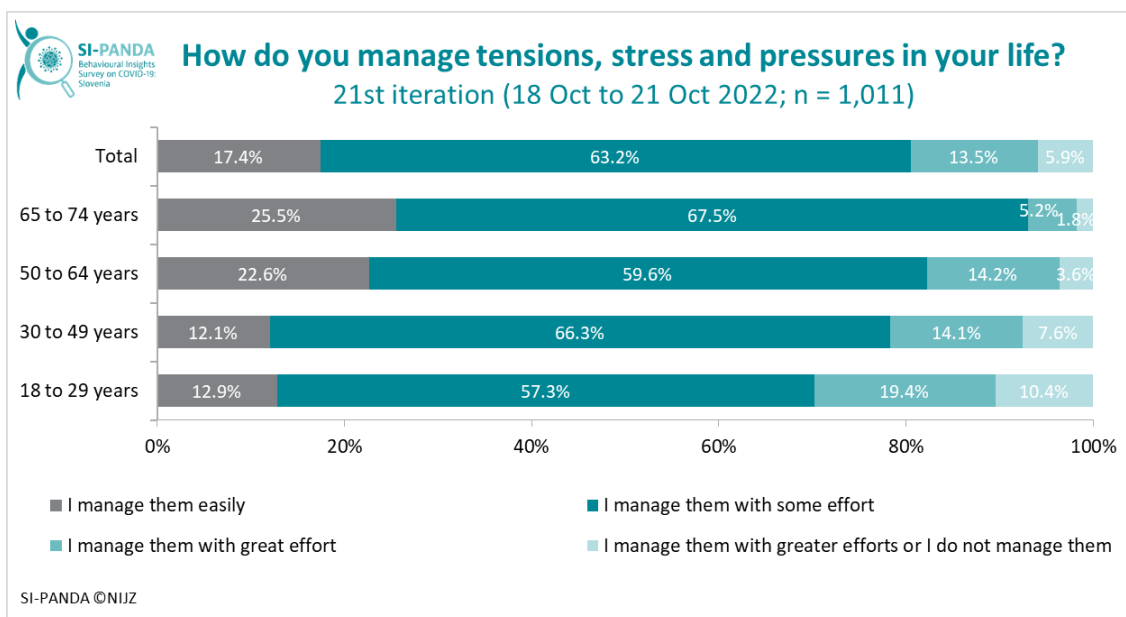


Figure 23: Stress management, total and by age groups.

The connection between financial security and health is well researched and proven¹⁰. Based on the data of the 21st survey iteration, we recognize the connection between experiencing stress and the self-assessment of the financial situation in the past three months. The least frequent experience of stress is reported by those who assess their financial situation as the same compared to the situation three months ago (Figure 24). Although we cannot conclude causal links between the self-assessed financial situation in the past three months and the experience of stress, the importance of the financial situation stability is indicated. Experiencing stress more often is reported by those who had a better financial situation in the past three months and especially by those who report that they had a worse financial situation compared to the previous time. Meanwhile, poorer stress management is mainly seen in those whose financial situation worsened in the last three months.

¹⁰ Neiloy R. Sircar & Eric A. Friedman (2018) Financial security and public health: How basic income & cash transfers can promote health, *Global Public Health*, 13: 12, 1878–88, DOI: 10.1080/17441692.2018.1460383.

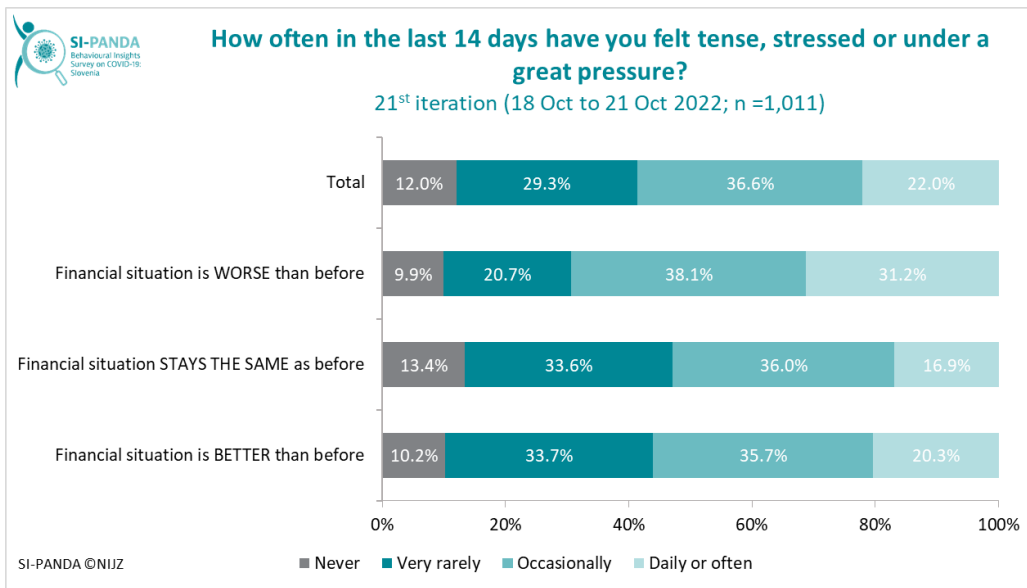


Figure 24: Frequency of experiencing stress in the last 14 days, total and by the self-assessment of the financial situation in the last three months.

The proportion of people with risky stress behaviour – that is people who experience stress often or daily and at the same time have severe problems with stress management or do not manage it at all – was 5.1% in 21st iteration, which is significantly higher than in the 20th iteration when it was 2.8% (Figure 25).

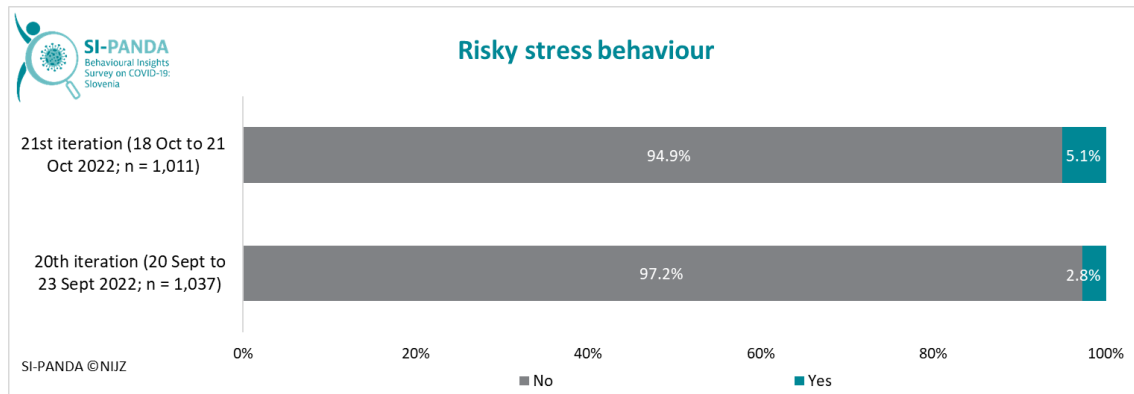


Figure 25: Risky stress behaviour, total and by survey iteration.

Between 20th and 21st survey iterations, risky stress behaviour increased significantly among men aged 18–29 and 30–49 (Figure 26), and among the less educated. By employment status, risky stress behaviour increased significantly among secondary school and university students (from 2.2% to 14.2%), which may be related to the start of the new school year, and among the employed or self-employed (Figure 27).

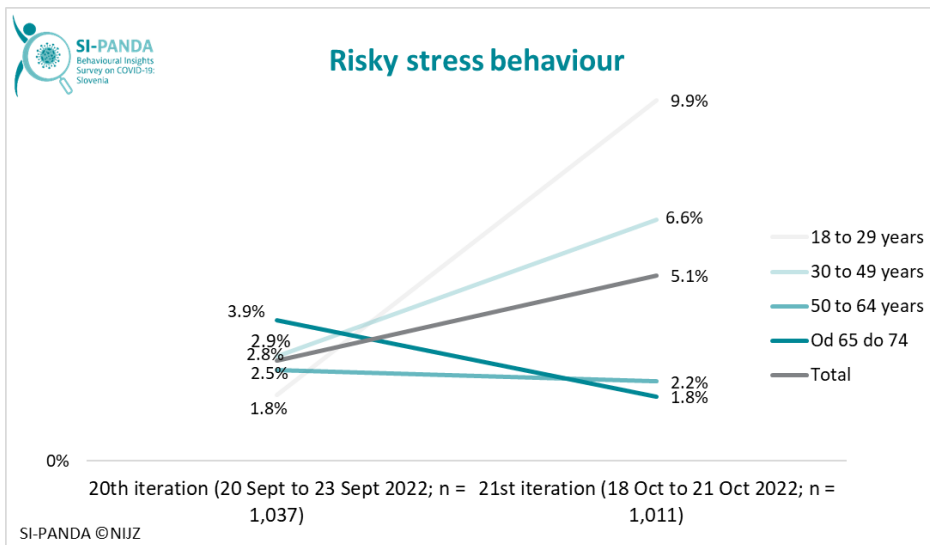


Figure 26: Risky stress behaviour, by age groups and by survey iteration.

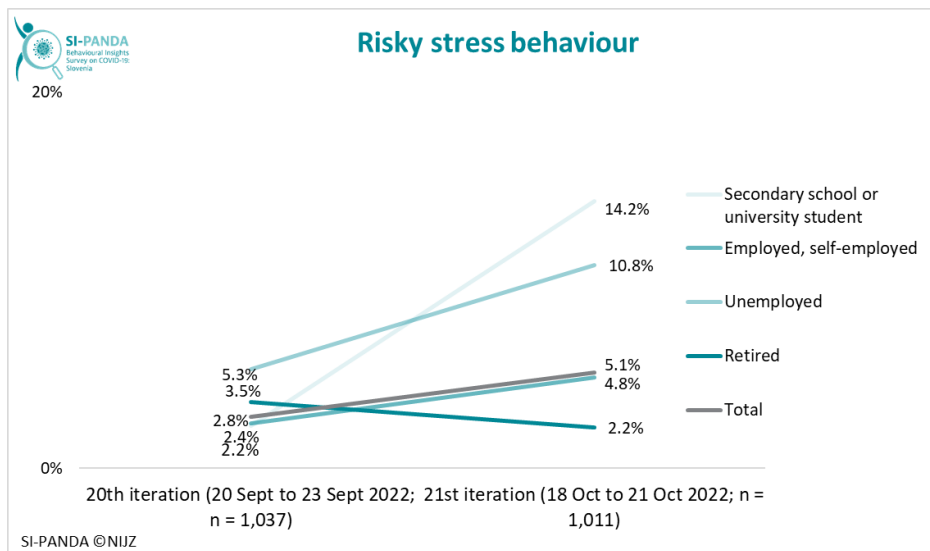


Figure 27: Risky stress behaviour, by employment status and survey iteration.

The variable, for which we found a very large difference in the proportion of risky stress behaviour, is daily physical activity. Those who identified being physically active for less than 30 minutes a day or 150 minutes a week reported risky stress behaviour in 11.1% (7.1% in 20th iteration). Those who were more physically active more often had a lower prevalence of risky stress behaviour, at 4% (compared to 2.0% in the 20th iteration).

Visits to a personal physician in the last 12 months

In the 21st survey iteration, we asked questions about the need for treatment by a personal physician and how the treatments were carried out. Measures to control the pandemic have accelerated the use of remote contacts and also the development of technical possibilities and skills that make it possible. Time savings and fewer obstacles compared to physical access, especially on the part of patients, further encourage remote treatments, but at the same time there is uncertainty as to whether such treatment is always satisfactory, appropriate and safe.

Due to new or worsening of existing health problems, 30.8% of respondents needed a personal physician in the last year, significantly more women than men. 50.1% of respondents needed a personal physician to issue a referral, prescription or end sick leave; again more women than men (Figure 28).

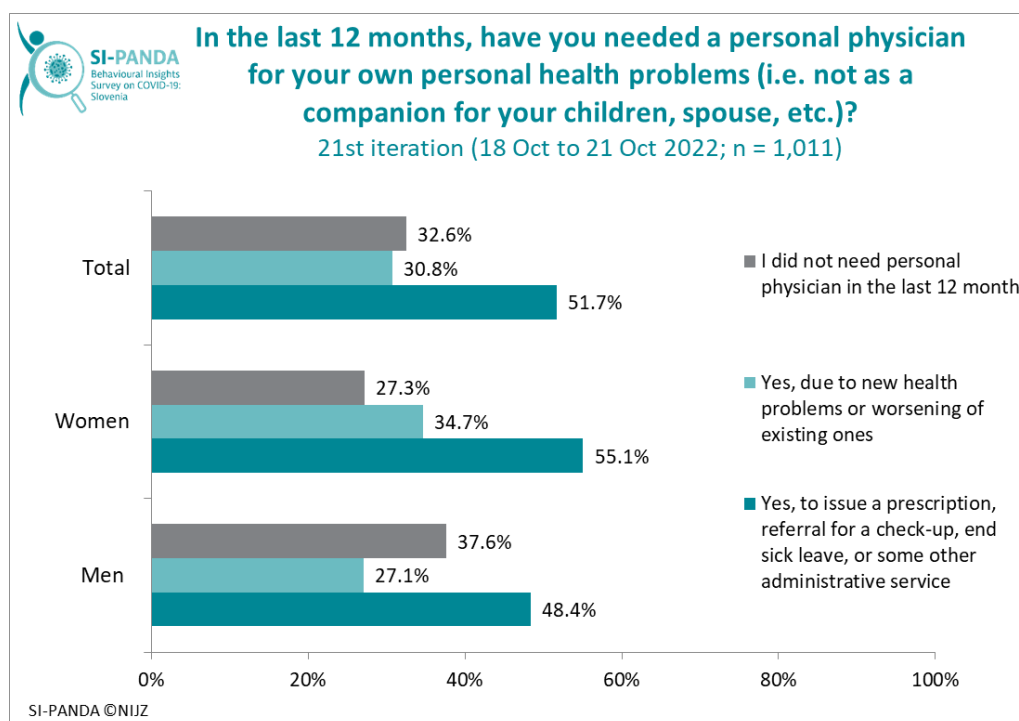


Figure 28: Need to see a personal physician in the last 12 months for personal health problems, total and by gender.

The highest proportion of people who have not needed a doctor in the last year is in the 30–49 age group, at 38.7%. The need to see a personal physician increases with age. A good fifth (22.6%) of the 65–74 age group respondents had not needed to see a personal physician in the last year. In younger age groups, a higher proportion of people needed a doctor for new health problems or worsening of existing ones. People aged 50 and over were statistically significantly more likely to need a personal physician for a prescription, referral for a check-up, ending sick leave or other administrative service (56.3%–65.7%) compared to younger people in the 18–49 age group (45.0%–45.1%) (Figure 29).

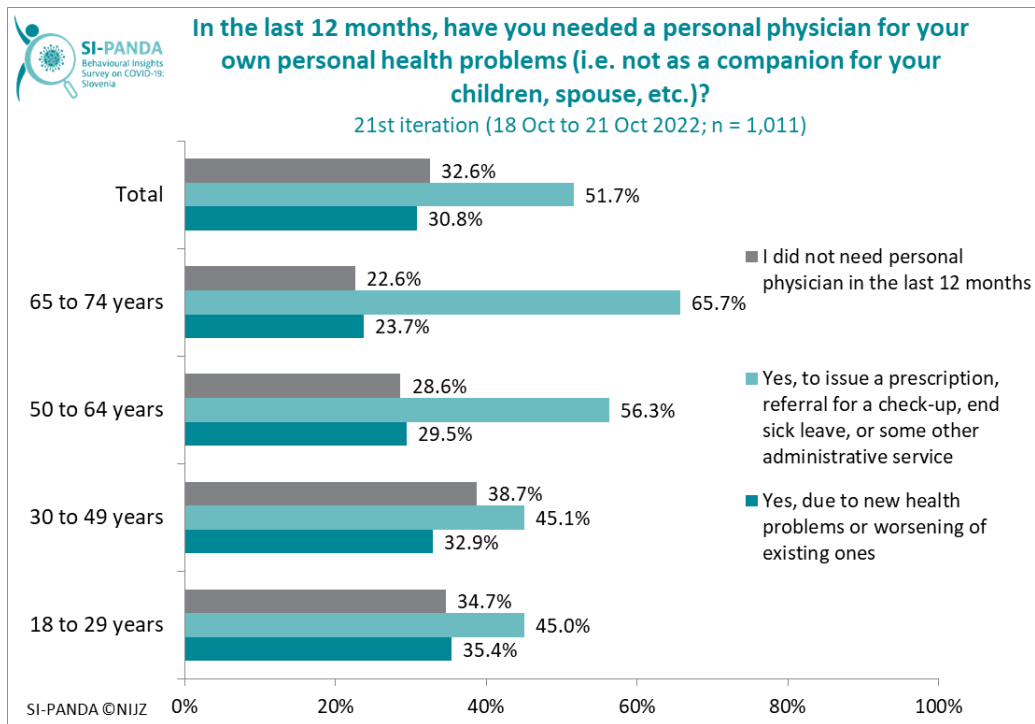


Figure 29: Need to see a personal physician in the last 12 months for personal health problems, total and by age groups.

Among the respondents who needed a personal physician due to new or worsening of existing health problems, 60.2% reported that the treatment included a check-up in the outpatient clinic, 15.4% were treated remotely through written messages, 11.3% through a telephone conversation, and 9.1% through a combination of written messages and a telephone conversation. 4.0% of the population, more often women, reported being treated for new or worsening of the existing health problems in an on-call, alternative or emergency clinic (Figure 30). Those aged 65 and over were significantly less likely to use written messages. People with at least one chronic illness or mental health problem were more likely than people without these conditions to use a combination of written messages and telephone conversations.

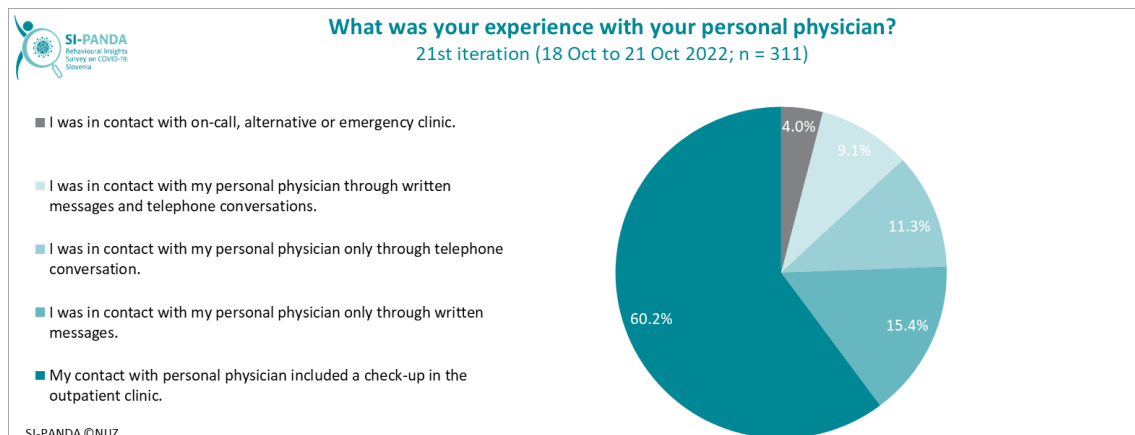


Figure 30: Last experience with a personal physician, among persons who needed a personal physician for new or worsening of existing problems, total.

For those who had contact with a personal physician in any way in the last 12 months, 85.4% rated their most recent experience with a personal physician as adequate for their health problem.

Statistically significantly more people living in a suburban environment (95.2%) rated their last experience with a personal physician as adequate, compared to people living in an urban (83.5%) and rural (80.9%) environment (Figure 31). The reasons for the higher satisfaction of people living in suburban environment should be researched in terms of the demographic structure of the population, as well as the accessibility to a personal physician and the flexibility of the treatment options offered. There were no statistically significant differences by age and gender, but statistically significantly fewer people with mental health problems rated their most recent treatment with a personal physician as adequate (77.5%) compared to people without mental health problems (91.5%).

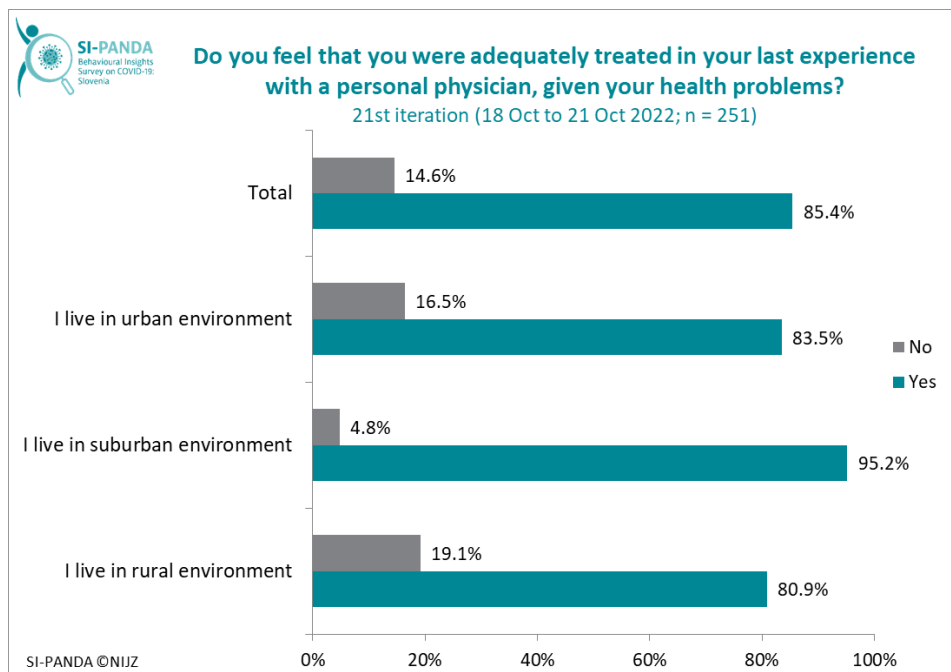


Figure 31: adequacy of treatment by a personal physician at last experience, according to the health problems they had, among people who had any contact with a personal physician in the last 12 months, total and by type of environment in which they live.



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