SI-PANDA
Behavioural Insights Survey on COVID-19: Slovenia

NIJZ National Institute of Public Health

COVID-19 PANDEMIC IN SLOVENIA

Results of a panel online survey on the impact of the pandemic on life (SI-PANDA), 14th wave

Date of publishing: 28th July 2021

Ljubljana, 2021

Authors:

National Institute of Public Health:

Assist. Prof. Helena Jeriček Klanšček Ph.D., Analysis and Development of Health Centre

Matej Vinko, Analysis and Development of Health Centre

Ada Hočevar Grom, Analysis and Development of Health Centre

Andreja Belščak Čolaković, Analysis and Development of Health Centre

Maruša Rehberger, Health Data Centre

Darja Lavtar, Health Data Centre

Assist. Prof. Mojca Gabrijelčič Blenkuš, Ph.D., Analysis and Development of Health Centre

SI-PANDA RESEARCH TEAM:
Ada Hočevar Grom, Andreja Belščak Čolaković, Maruša Rehberger, Darja Lavtar, Aleš Korošec, Assist. Prof. Mojca Gabrijelčič Blenkuš, Ph.D., Tatjana Kofol Bric, Matej Vinko, Assist. Prof. Helena Jeriček Klanšček, Ph.D., Tanja Carli, Petra Klepac, Mitja Vrdelja, Janina Žagar, Ticijana Prijon, Ph.D., Metka Zaletel

Design:
Andreja Frič,
Tadeja Horvat

Translation:
Mihaela Törnar

National Institute of Public Health web page:
www.nijz.si

SI-PANDA research web page:
https://www.nijz.si/sl/raziskava-o-vplivu-pandemije-na-zivljenje-si-panda-20202021

Contacts:
ada.hocevar@nijz.si
raziskave@nijz.si

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INTRODUCTION

Pandemic fatigue is the expected and natural human response to long-lasting public health crisis that significantly affects the daily life of an individual. It appears gradually and is influenced by emotions, experience, and attitudes. It is a response to long-lasting and unsolved distress in people's lives. The severity and the scope of COVID-19 pandemic and the introduction of strict measures to prevent and limit the transmission of the infection have a huge impact on the daily lives of all people, including those not directly affected by the virus. Over time, people's compensatory mechanisms for crisis management become fatigued and so these people lack motivation to follow recommended self-protective behaviours, and consequently jeopardize the effectiveness of measures to prevent the spread of SARS-CoV-2 virus infection among the population.

Understanding COVID-19-related human behaviour enables the identification of at-risk target groups and contributes to finding solutions that encourage better adherence to protective behaviour recommendations. Adherence to measures most effectively reduces the transmission and spread of SARS-CoV-2 in the long run, reduces fatigue and distress of all kinds, and increases the quality of life. In addition, it maintains a functioning healthcare system, enables the normalization of health promotional, preventive, and curative treatments, normalizes the functioning of all segments of society, from education to economy, and enables reducing inequalities through remote determinants of health. Above all, it can most effectively reduce the COVID-19 burden at the individual and social level in Slovenia.

The aim of the research is to investigate and understand human behaviour in relation to COVID-19 and to assess pandemic fatigue during and after the COVID-19 pandemic in Slovenia. With the help of this research, we hope to identify and address the impact of the pandemic, the measures introduced, and the recommendations and decisions made by the government on people's lives. Here are some key results. The data collected in the survey provide key information on pandemic fatigue of the general population for professionals and decision makers. This also enforces the recommendation of the World Health Organization[1], that countries regularly conduct qualitative and quantitative population surveys, which should serve as the basis for further action.

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

METHODOLOGY

The survey in the form of an online questionnaire takes place in twenty-one replicates starting on 4 December 2020. The first part of the survey (up to and including the 12th wave) was conducted by the Mediana Institute for Market and Media Research on behalf of the National Institute of Public Health (NIJZ); and the second part is conducted by Valicon. The first twelve repetitions were performed once every two weeks and the second part once a month. Data are analysed at the NIJZ.

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

In the survey, we use the World Health Organization (WHO)[2] questionnaire, which was translated, and adjusted to the situation in our country in accordance with the WHO instructions, and we also included some additional questions.

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

The report mostly presents data from the **14th wave** of the panel web survey, that took place **from 6 July 2021 to 9 July 2021** on a sample of 1,019 adults aged 18 to 74 years. Some comparisons with previous waves of survey are also shown.

So far, the following waves of survey have been conducted:

1st wave:	from 4 Dec 2020 to 6 Dec 2020	8th wave:	from 12 Mar 2021 to 15 Mar 2021
2nd wave:	from 18 Dec 2020 to 21 Dec 2020	9th wave:	from 26 Mar 2021 to 29 Mar 2021
3rd wave:	from 4 Jan 2021 to 5 Jan 2021	10th wave:	from 9 Apr 2021 to 12 Apr 2021
4th wave:	from 15 Jan 2021 to 17 Jan 2021	11th wave:	from 23 Apr 2021 to 26 Apr 2021
5th wave:	from 29 Jan 2021 to 30 Jan 2021	12th wave:	from 7 May 2021 to 9 May 2021
6th wave:	from 12 Feb 2021 to 15 Feb 2021	13th wave:	from 8 Jun 2021 to 10 Jun 2021
7th wave:	from 26 Feb 2021 to 1 Mar 2021	14th wave:	from 6 Jul 2021 to 9 Jul 2021

[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.

SUMMARY OF THE SURVEY

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Indicator	1st wave (4 Dec to 6 Dec 2020) %	13th wave (8 Jun to 10 Jun 2021) %	14th wave (6 Jul to 10 Jul 2021) %
Testing in case of close contact with a COVID-19 positive person *(the share of respondents who would definitively get tested in case they were in contact with COVID-19 positive person and would not develop any symptoms themselves)*	64.4	67.9	70.3
Vaccination rate *(the share of respondents who were vaccinated with at least one dose of COVID-19 vaccine)*	/	49.0	53.1
Hesitation regarding vaccination *(the share of respondents who do not intend to be vaccinated)*	/	32.1	35.3
Long COVID *(the share of respondents who reported at least one medical problem one month after the recovery from the infection)*	/	73.5	69.3
Avoiding visiting the doctor due to a non-COVID-19 problem *(the share of respondents who avoided visiting the doctor in the last 2 weeks due to a non-COVID-19 problem)*	35.8	27.6	24.5
Physical activity *(the share of respondents who reported they were less physically active in the last 2 weeks than before the pandemic)*	44.8	32.6	29.6
Stress *(the share of respondents who have often, or every day, felt tense, stressed or under a lot of pressure in the last 14 days)*	/	23.3	20.0
Mental health problems *(the share of respondents with depressive disorder or mental health problems)*	37.5	37.7	32.7
Deterioration of the personal financial situation *(the share of respondents who estimated that their financial situation in the last 3 months was worse than before)*	31.4	24.1	18.0

MAIN RESULTS

Supporting the measures currently in force

Measures to prevent and limit the spread of SARS-CoV-2 virus are in force for a long time and are very diverse. The measures have been varying between individual waves of the survey and have received very different support. We are presenting opinions on the measures that were in force at the time of the survey. In the 14th wave of the survey, the largest support was given to the opening of theatres and cinemas under certain conditions (67.3%), more than a half of respondents also supported watching sporting events in person by following the RVT condition (Figure 1). Support for the mandatory use of masks on outdoor surfaces when it is not possible to maintain interpersonal distance of at least 2 metres has fallen by almost 7 percentage points compared to the previous wave of the survey, which can be attributed to a more favourable epidemiological picture, which is why people probably don't think this measure is that important anymore.

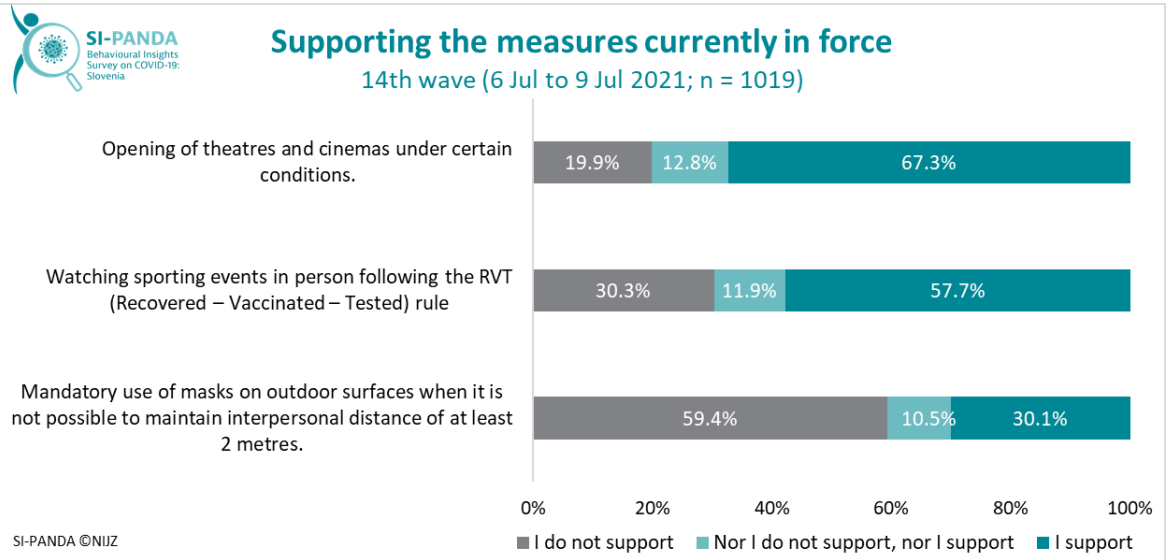

Figure 1: Supporting the measures currently in force, total.

Throughout the survey, the respondents are also asked whether they find the restrictions currently in force as exaggerated. In the 10th wave, which took place in the beginning of April – in time of temporary lockdown – 64.3% of respondents answered affirmative, which was the highest share so far (Figure 2). After the 10th wave of the survey, the share of persons with such opinion started declining, which is understandable given the additional release of measures due to a more favourable epidemiological situation. In the 14th wave of the survey, half of the respondents thought that the current restrictions were strongly exaggerated, which is the lowest share so far.

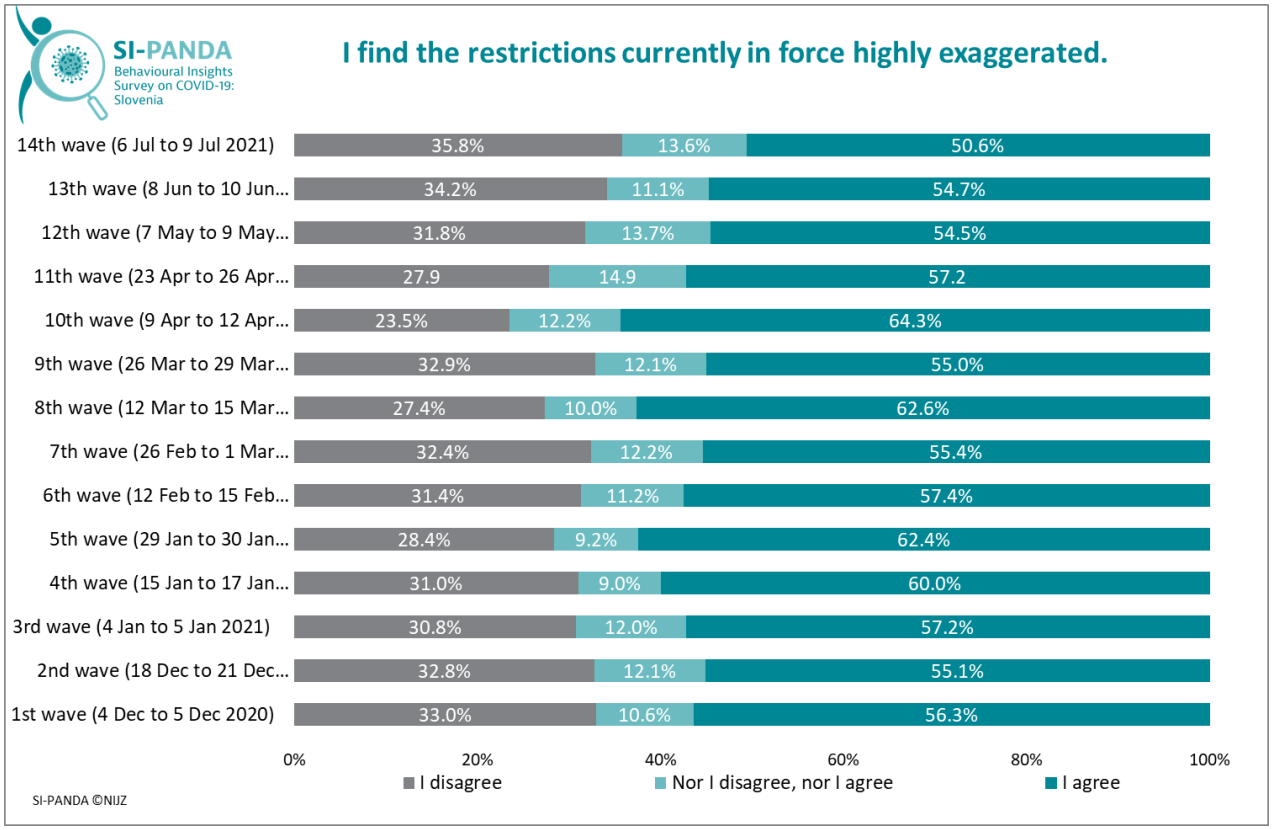

Figure 2: Opinion on the exaggeration of current restrictions, total, by survey waves.

In the 14th wave of the survey, 57.9% of respondents believed that measures related to SARS-CoV-2 virus unfairly limit the lives of some population groups more than others, which is almost three percentage points less than in the 13th wave of the survey. Almost half (46.5%) of the respondents believe that the measures infringe on our rights to an appropriate extent, given the current state of the pandemic. The share of respondents who believe that the inhabitants of Slovenia generally follow the measures related to SARS-CoV-2 virus management fell by 8 percentage points in 14th wave compared to the 13th wave (Figure 3).

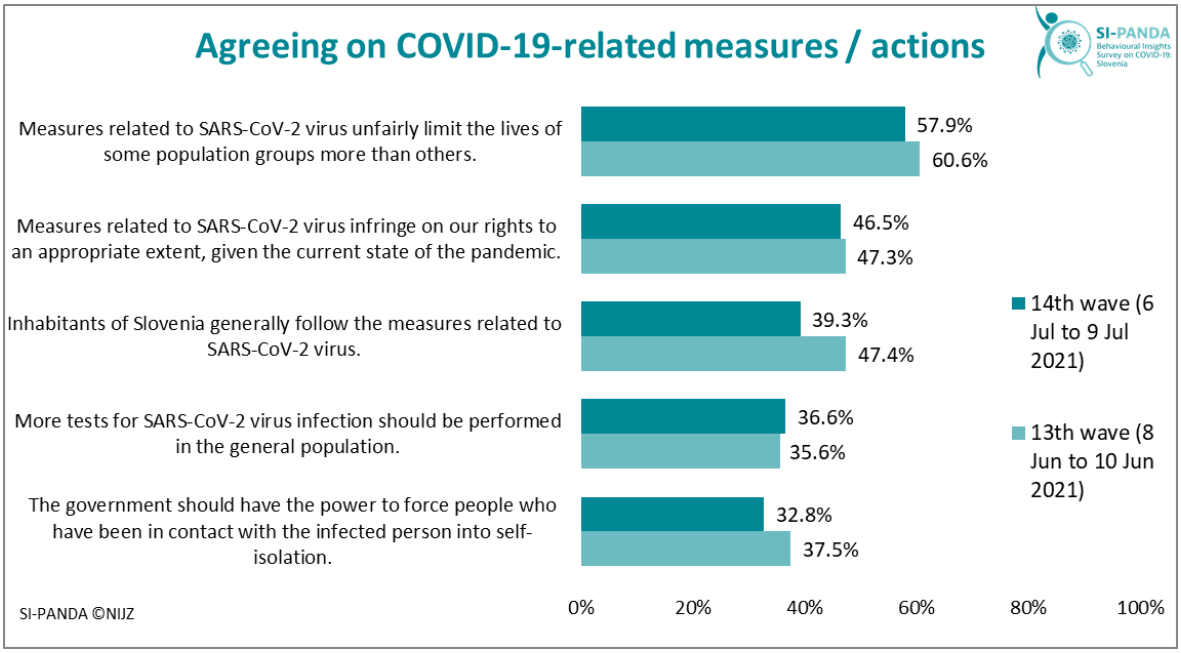

Figure 3: Opinions on COVID-19-related measures / actions, total, by survey waves.

Supporting individual measures

Even before the 13th wave of the survey, there was a lot of talk about the upcoming introduction of the EU Digital COVID Certificate (EU DCP) [3], and it was introduced on 1 July 2021. Thus, we asked the respondents in the 13th and 14th waves of the survey about their support for this measure – it was supported by more than half of the respondents. Approximately the same share of respondents also supports the possible introduction of supervision over the implementation of home quarantine (Figure 4).

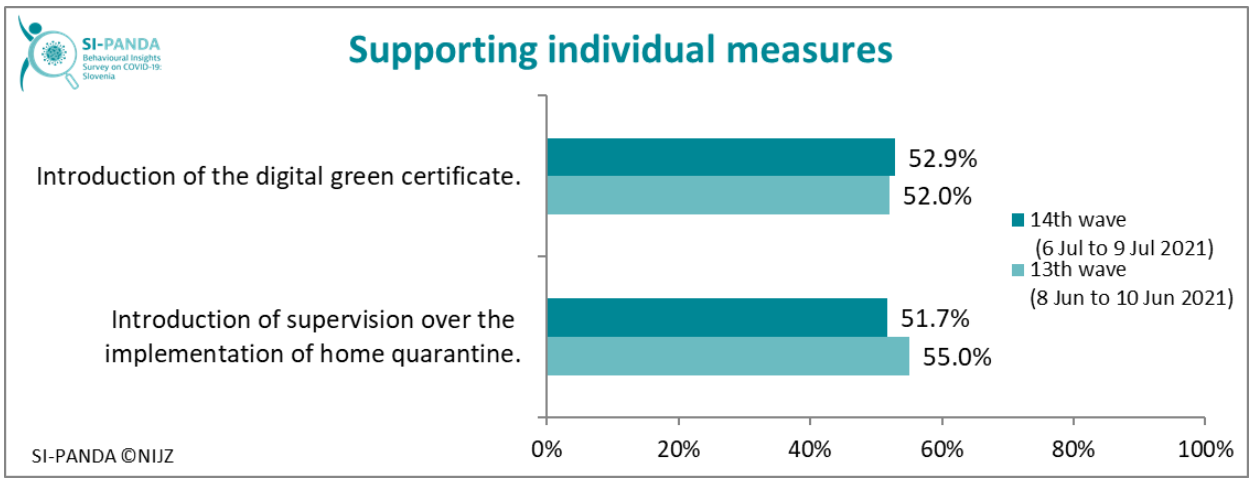

Figure 4: Supporting individual measures, total, by survey waves.

[3] European universally valid certificate of vaccination, recovery or testing.

Trust in persons and institutions to manage the pandemic adequately

Throughout the survey waves, respondents trust their personal physicians the most in terms of proper pandemic management – the average confidence on the 7-point scale in the 14th wave is 5.1. This is followed by trust in hospitals with an average of 4.9 and trust in employers with an average of 4.7. People who have already been vaccinated with two doses of COVID-19 vaccine, characteristically have more confidence in all the above institutions than those who will not be vaccinated (Figure 5).

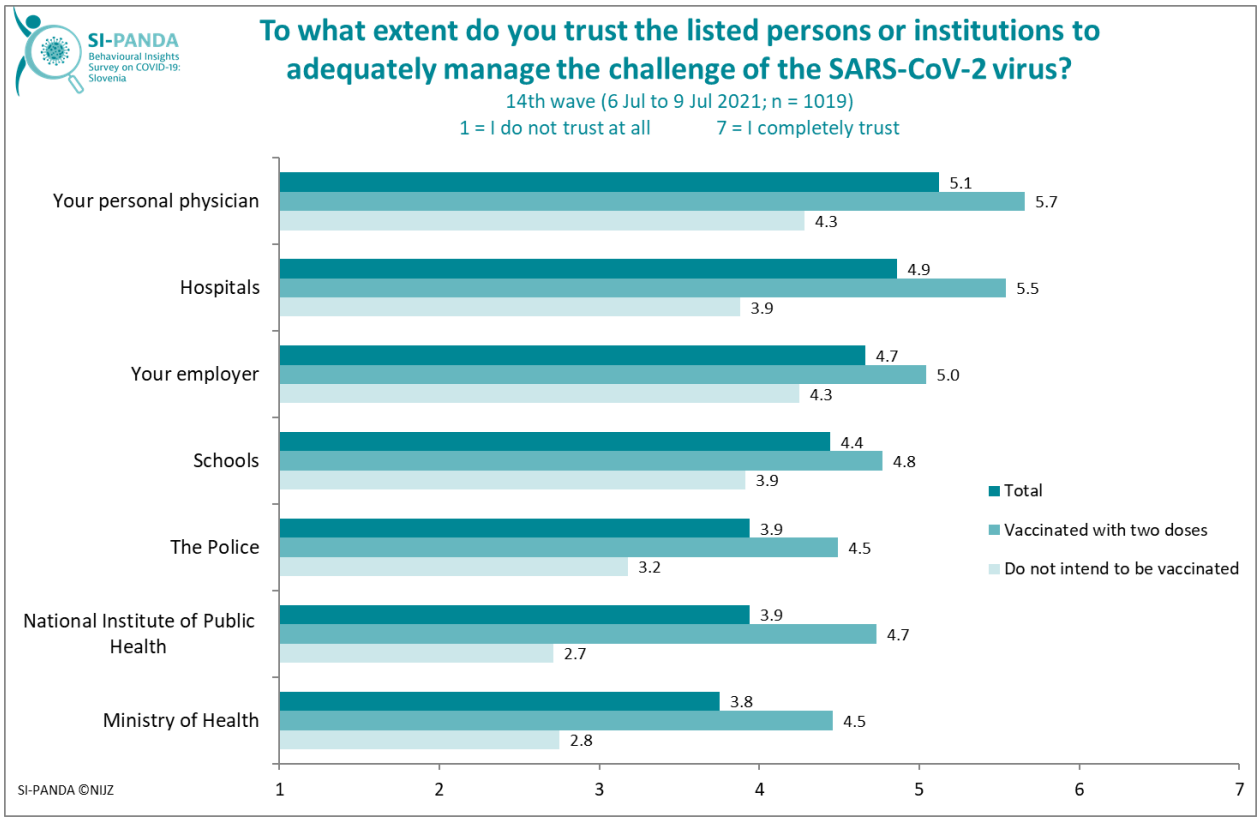

Figure 5: Trust in persons and institutions to manage the pandemic adequately, total and by vaccination rate.

Vaccination

Data from the 14th wave of the survey show that almost 50% of respondents have already been vaccinated with 43.5% of people already receiving two doses of the vaccine and 9.6% receiving one dose of the COVID-19 vaccine (Figure 6). The share of vaccinated persons (with one or two doses of COVID-19 vaccine) among the oldest age group of the respondents (from 65 to 74 years) is already 75.9% (Figure 6, Figure 7). 5.7% of the respondents stated that they had not yet been vaccinated because the vaccine was not yet available for them, and a good third (35.3%) of the respondents in the 14th wave stated that they do not intend to be vaccinated. The share of those who do not intend to be vaccinated is the highest in the two youngest age groups, in which around 44% of people have such an opinion (Figure 7). Women (37.8%) are less in favour of vaccination than men (32.8%) (Figure 6).

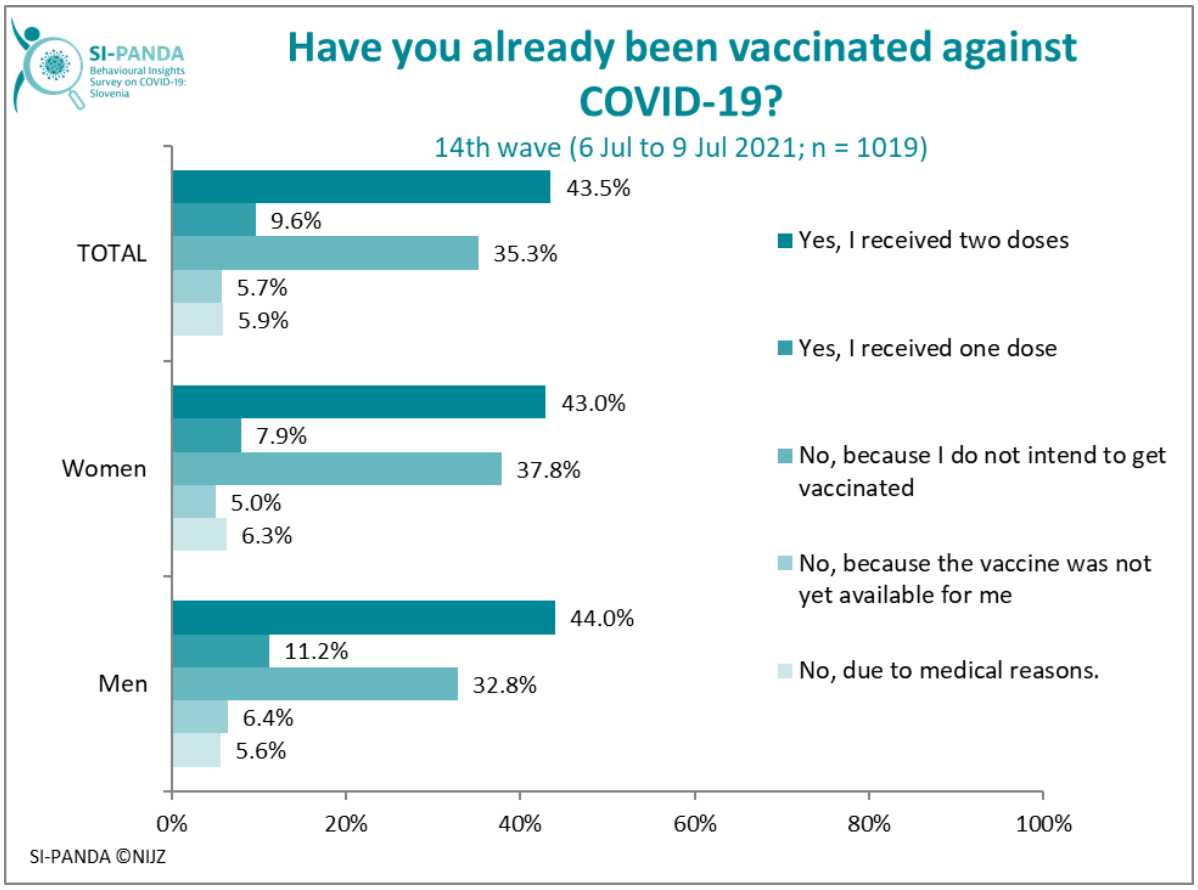

Figure 6: Vaccination against COVID-19, total and by gender.

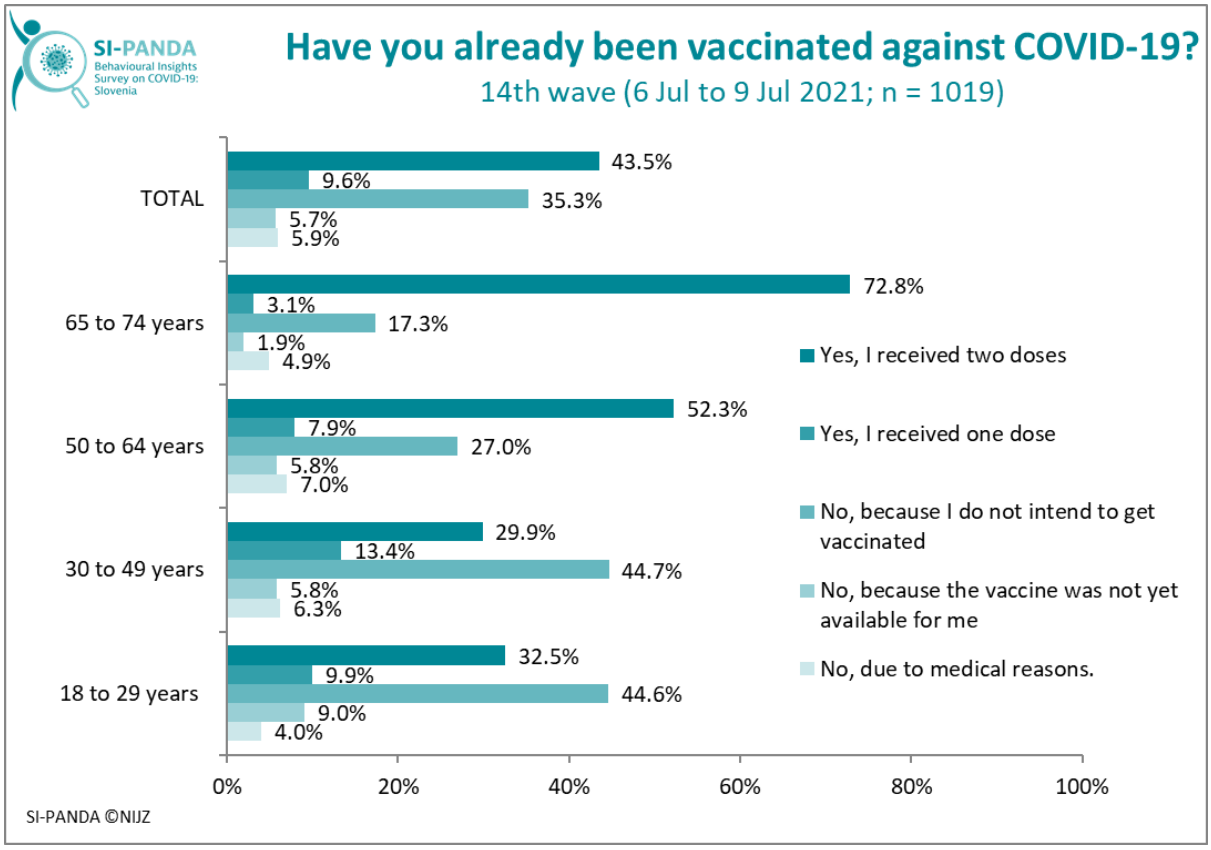

Figure 7: Vaccination against COVID-19, total and by age groups.

If we compare the last six waves of the survey, we can see that the share of people who have already received both doses of the vaccine is steadily increasing, and the share of people who do not intend to be vaccinated ranges from 27.5% to 35.3% (Figure 8).

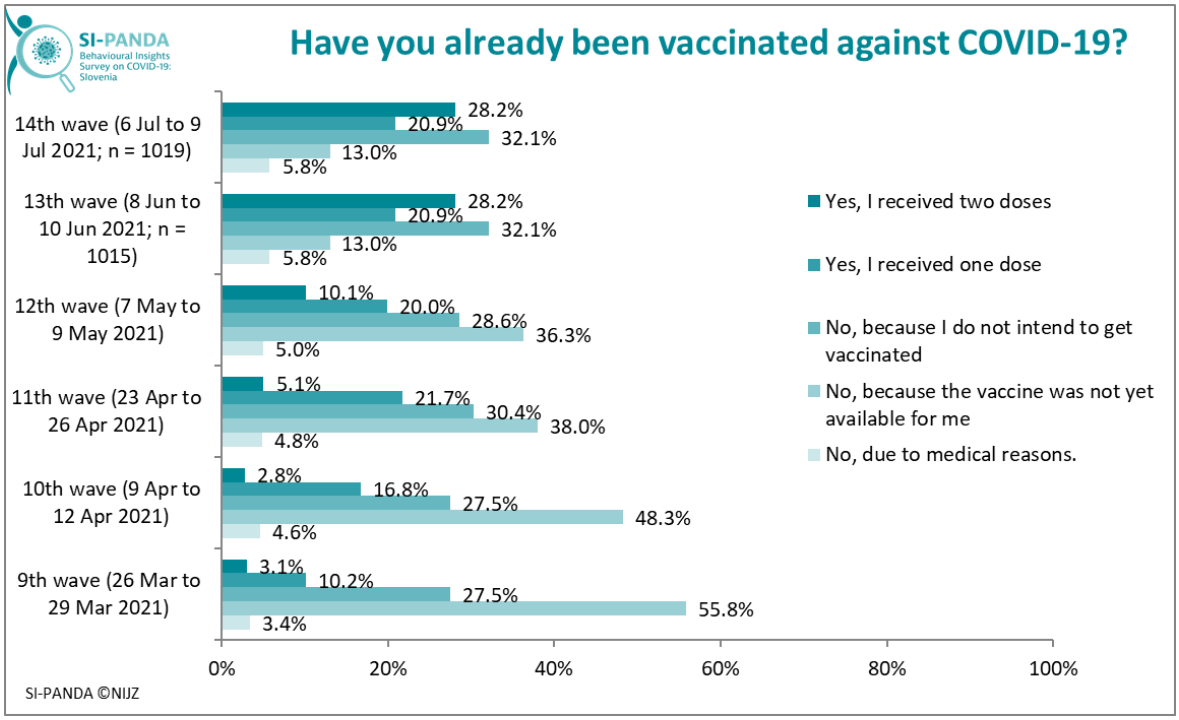

Figure 8: Vaccination against COVID-19, total, by survey waves.

As already mentioned, in the 14th wave of the survey, as many as 44% of respondents in the two youngest age group (18 to 29 years and 30 to 49 years) stated that they do not intend to be vaccinated against COVID-19, which is the highest share so far. On the other hand, in the 13th and 14th waves of the survey, a significant increase in the share of vaccinated persons with one or both doses of COVID-19 vaccine is observed in these age groups. In the 14th wave of the survey, 32.5% of respondents in the 18–29 age group were vaccinated with two doses, which is 28 percentage points more than in the 13th wave of the survey (4.5%). This was already indicated by the 13th wave of the survey, when in this age group, compared to the previous waves of the survey, we recorded a larger increase in persons vaccinated with one dose of the vaccine (29.1%, while in the 12th wave of the survey it was 7.4%). A similar, albeit slightly smaller, upward trend in the number of vaccinated persons was observed in the 30–49 age group, where the share of people vaccinated with two doses of vaccine increased by almost 18 percentage points in the 14th wave compared to the 13th wave (in the 14th wave: 29.9%; in the 13th wave: 12.2%). Also in this age group, this was predicted by a higher share of people vaccinated with one dose of the vaccine in the 13th or already in 12th waves of the survey (in the 13th wave: 24.0%; in the 12th wave 11.9%; in the 11th wave: 13.7%).

In this wave of the survey, we also asked the respondents a few questions to determine the level of preparedness for vaccination against COVID-19 on a 7-point scale, or the level of rejection of it. Men in the oldest age group were the most prepared to vaccinate (average 4.9 on a 7-point scale), while the vaccination is mostly rejected by women in both youngest age groups (average

3.5 or 3.4 on a 7-point scale) (Figure 9). Among those who had already recovered from the infection, those who had a more severe course of the diseases that required hospital treatment were the most willing to be vaccinated (average 4.7).

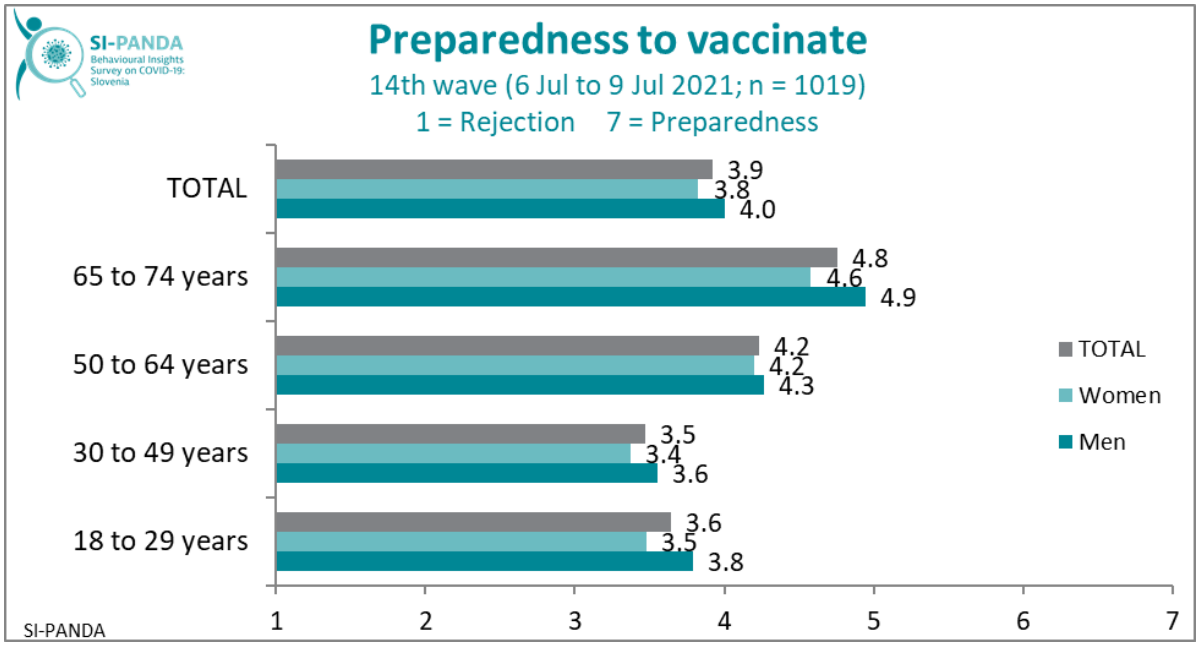

Figure 9: Preparedness to vaccinate against COVID-19, by gender and age groups.

When asked what the decision to vaccinate will depend on, respondents most agree on average that their decision to vaccinate will depend on whether enough data is available that the vaccine is safe (in the 14th wave, the average value on a 7-point scale is 4.6), whether sufficient data will be available on whether the vaccine is effective (4.6), whether the vaccine has been in use for a long time (4.2) and whether they will be able to choose the type of vaccine by themselves (4.1) (Figure 10).

However, if we look at what the decision to vaccinate will depend on among the people for whom the vaccine has not yet been available, the predominant reason is whether they will be able to choose the type of vaccine (average 6.0 on a 7-point scale). Among those who have already been vaccinated, the main reason for the decision to vaccinate was whether higher vaccination rate will lead to the release of restriction on movement and socializing in groups, while[4] among those who will not be vaccinated, the decision on vaccination depended the most on whether there is sufficient data that the vaccine is safe (4.5) (Figure 10). The results of the research thus show that the possibility of choosing the type of vaccine is important for people, as well as the release of restriction on movement and socializing in groups with sufficient vaccination rate and, of course, confidence in the safety of vaccines.

[4] Do not intend to be vaccinated or will not be vaccinated due to medical reasons.

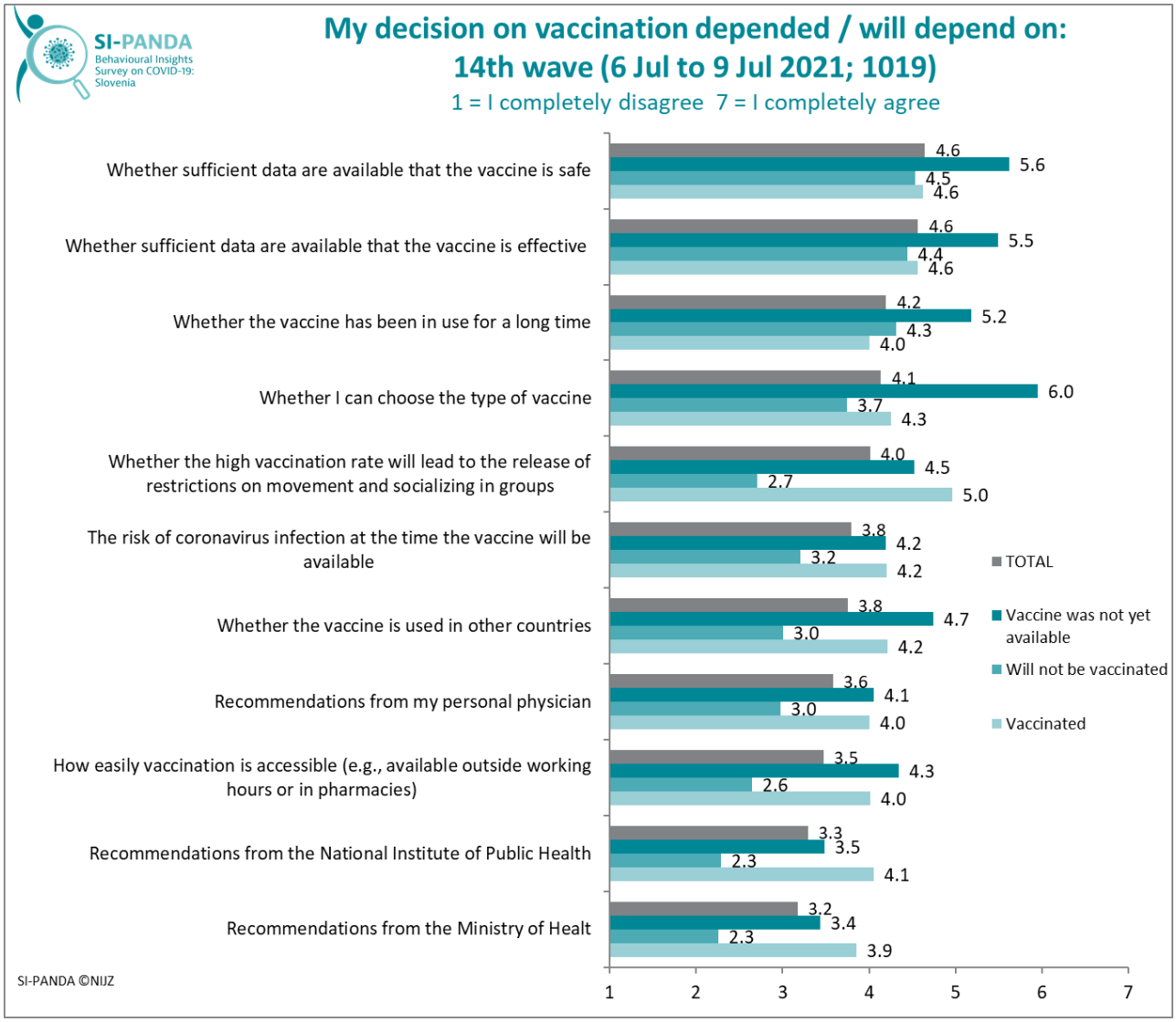

Figure 10: Reasons for the decision to vaccinate, total and by vaccination rate.

If we compare the respondents who have already recovered from COVID-19 with those who have not yet, the share of those who will not be vaccinated is, as expected, higher among those who had already recovered from COVID-19 (42.7% among those who have recovered from the disease compared to 32.6% among people who have not yet recovered from the disease) (Figure 11).

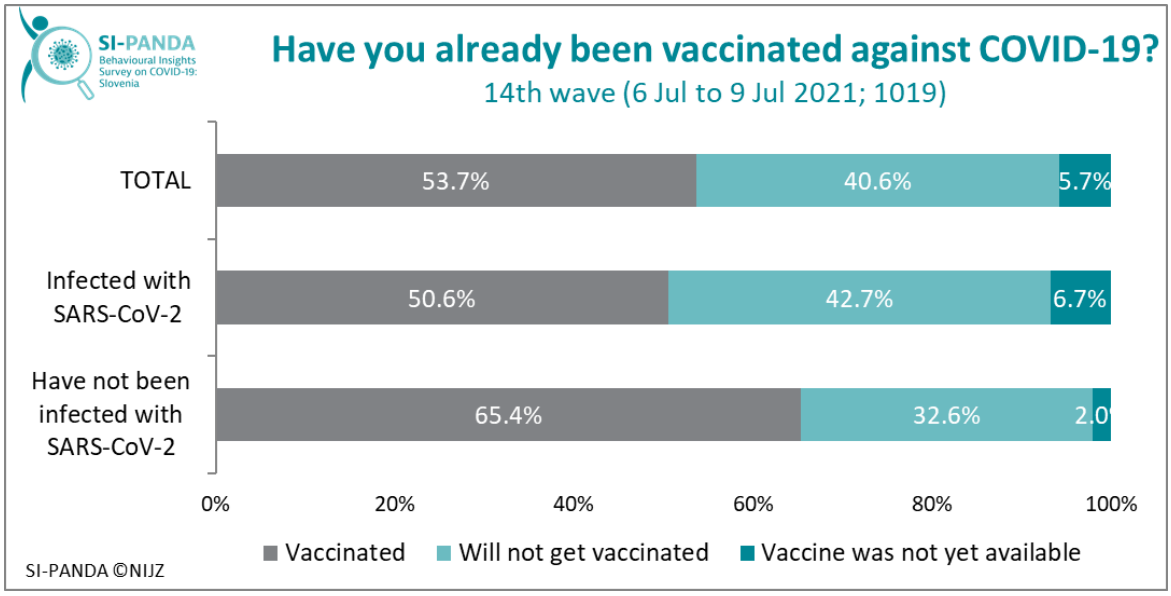

Figure 11: Vaccination against COVID-19, total and by recovery rate.

In the 14th wave of the survey, we also asked the unvaccinated respondents (respondents who do not intend to be vaccinated or were not vaccinated due to medical reasons or were not vaccinated because vaccine was not yet available for them) for more detailed reasons why respondents do not intend to be vaccinated. Concerns about side effects after vaccination, long-term health effects and concern that the vaccine is not safe are among the main reasons. More than a fifth of respondents said that they thought SARS-CoV-2 did not pose a risk to their health (Figure 12).

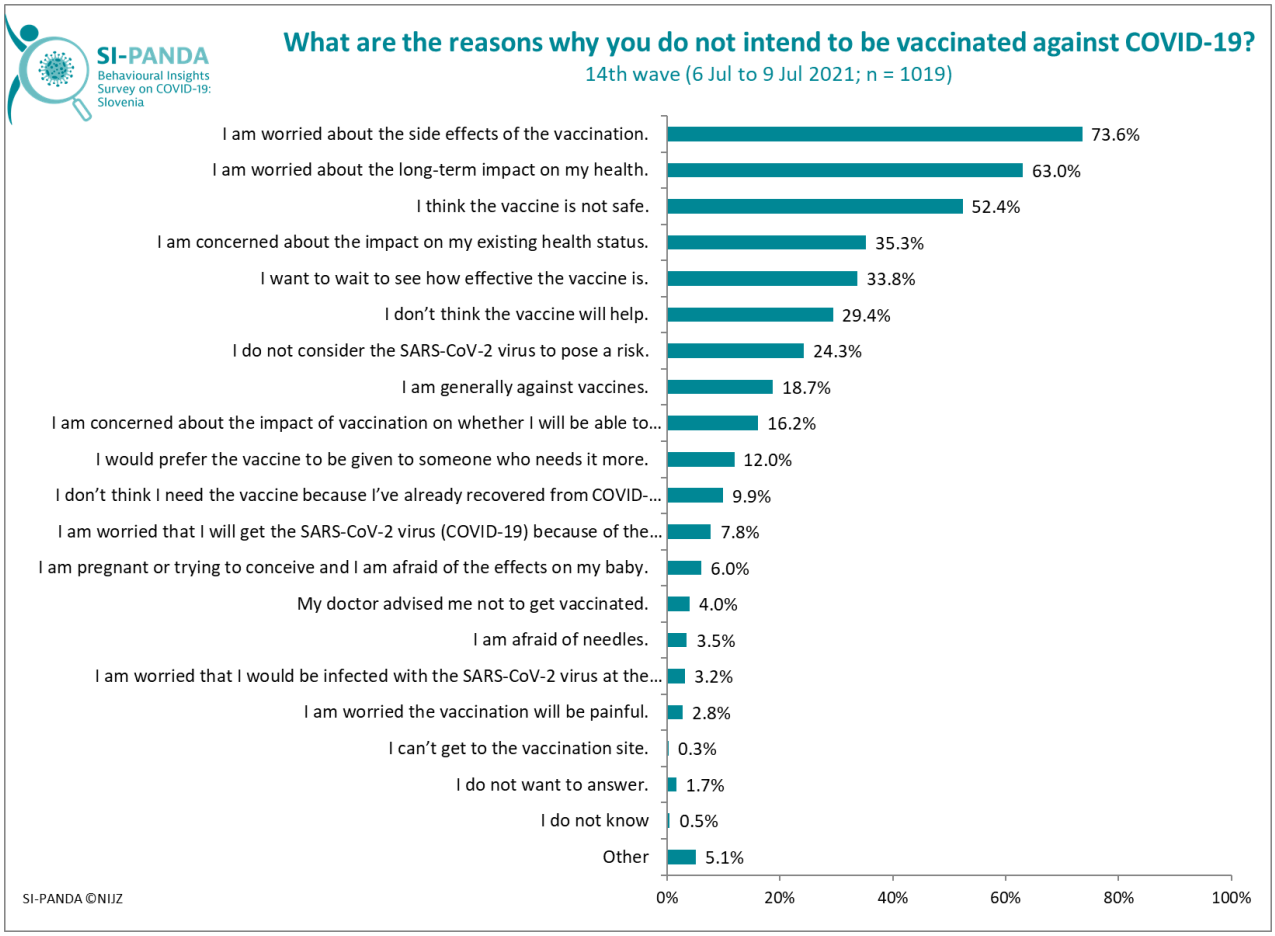

Figure 12: The reasons why respondents do not intend to vaccinate against COVID-19, total.

Epidemiological survey

In this wave of the survey, we were also interested in whether respondents would be willing to participate in a short survey with the epidemiological service for the purpose of an epidemiological inquiry if their test for SARS-CoV-2 were positive. Almost three quarters (73.6%) answered that they would participate in the survey. The lowest share of those who would be willing to participate is among the youngest respondents, and then increases with age (Figure 13).

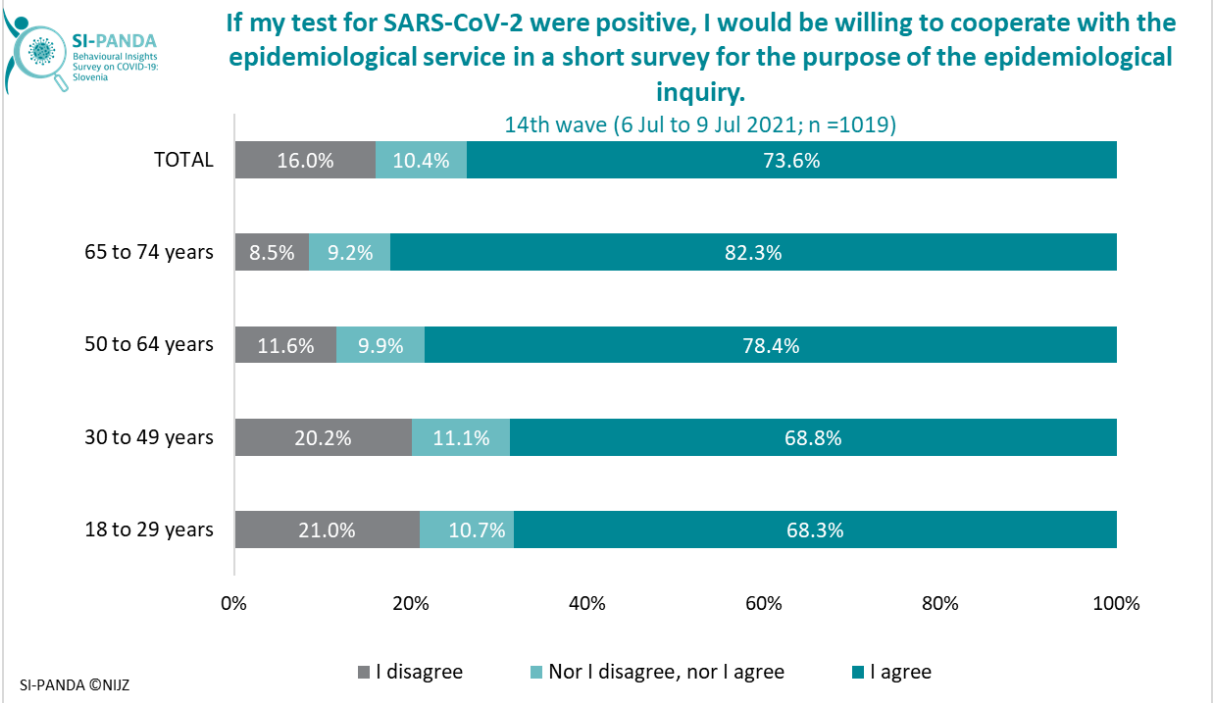

Figure 13: Willingness to participate in a survey with the epidemiological service in case of a positive test for SARS-CoV-2, total and by age groups.

Willingness to cooperate with the epidemiological service is the lowest among the respondents who stated that they will not get vaccinated against COVID-19 (27.9%) (Figure 14).

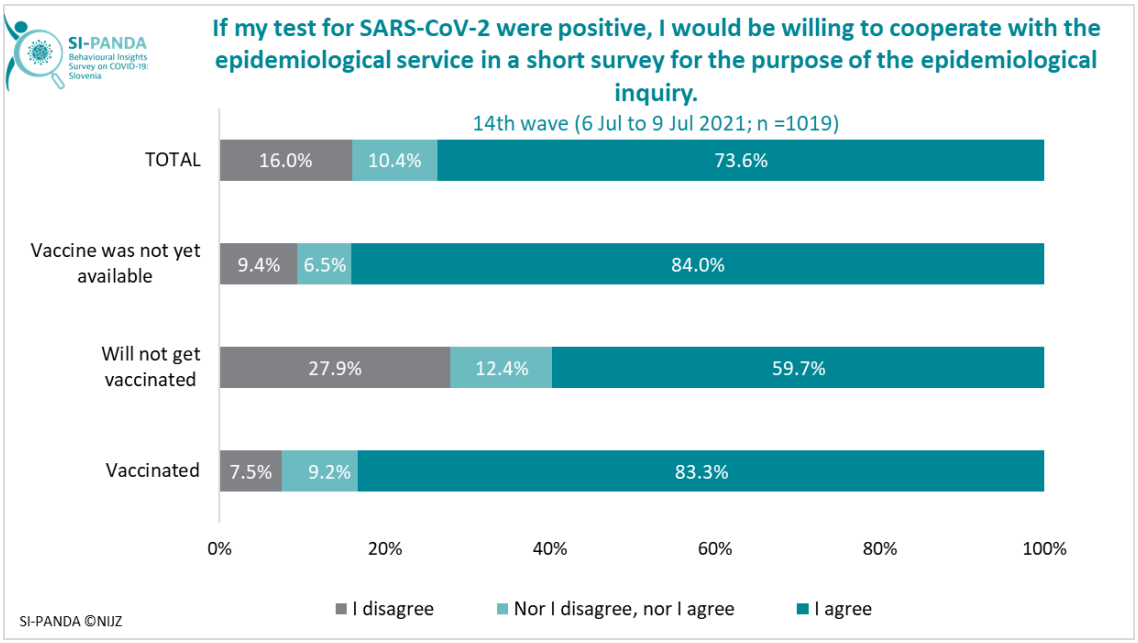

Figure 14: Willingness to participate in a survey with the epidemiological service in case of a positive test for SARS-CoV-2, total and by vaccination rate.

The impact of the pandemic on lifestyle and some other areas of life

In the 14th wave of the survey, 32.3% of respondents reported spending more time in front of a television, computer, or other electronic devices in the last 2 weeks than before the pandemic; a particularly high share of these persons was among the youngest respondents (aged 18 to 29), where it amounted to 45.5%. The youngest age group of respondents reported in highest shares, as throughout the survey, other unhealthy lifestyle habits in the last 2 weeks. Thus, compared to other age groups, they ate more unhealthy food than before the pandemic (20.1% of respondents aged 18 to 29) and smoked more (15.5%). A quarter also avoided visiting a doctor due to a problem not related to SARS-CoV-2 virus (Figure 15).

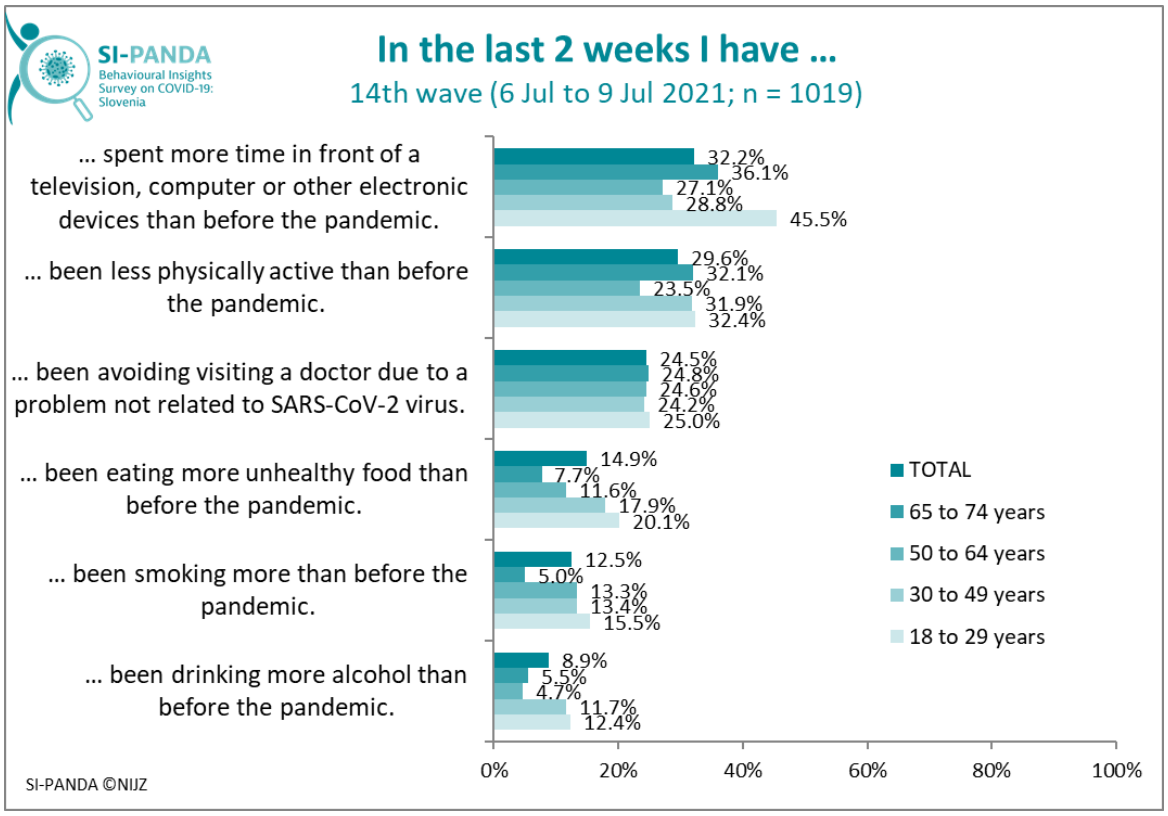

Figure 15: The impact of the pandemic on lifestyle in the past 2 weeks, total and by age groups.

If we compare all the waves of the survey so far, among the lifestyle factors, the pandemic had the greatest impact on the reduction of physical activity. In the 14th wave of the survey, the lifestyle improved slightly compared to previous wave.

In the 14th wave of the survey, respondents were also asked about the impact of the pandemic on individual areas of life. As expected, the largest share (59.6%) of people reported that the pandemic had a negative impact on their social contacts with extended family and friends, followed by a negative impact on physical activity (34.0%) and financial security (deterioration was reported by 28.8% of respondents) (Figure 16).

On the other hand, those who reported the positive impact of the pandemic, for the most part observed this impact in the area of physical activity and healthy diet – this can be explained by the fact that they may have had more time for these activities and for preparation of healthy meals, because other activities, in which they would otherwise engage, were severely curtailed during pandemic.

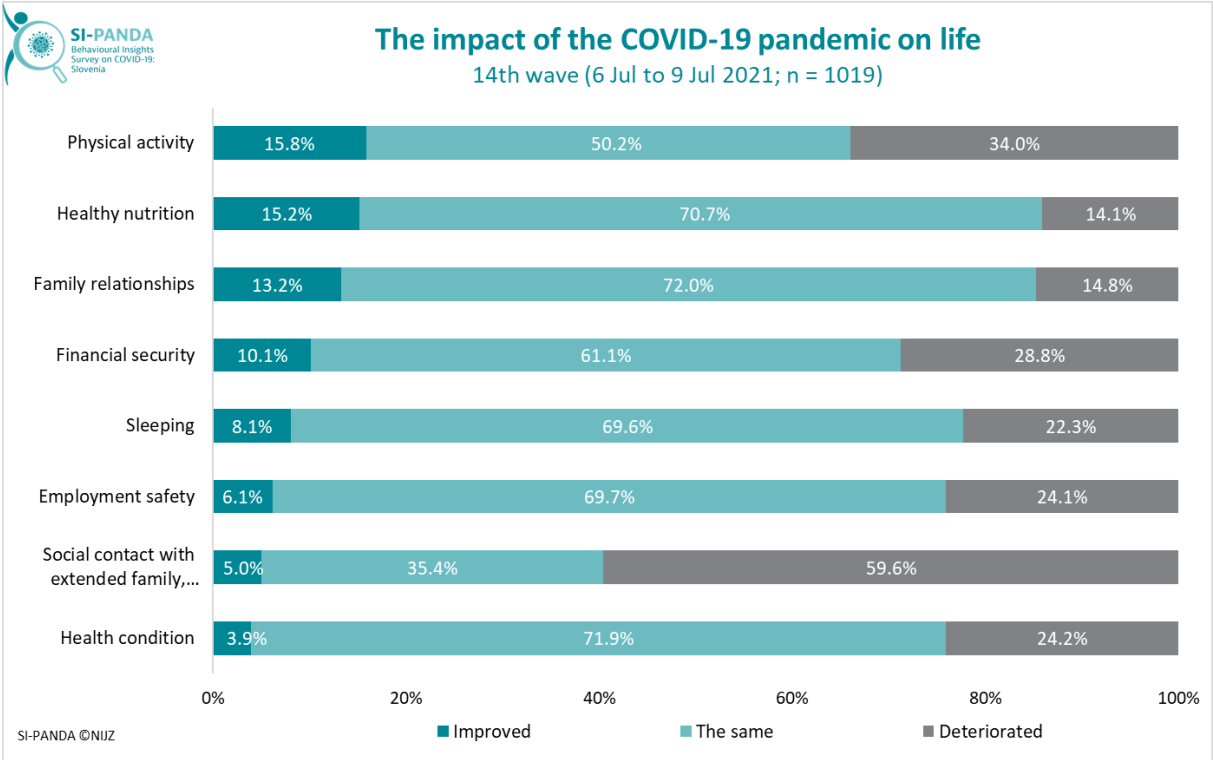

Figure 16: The impact of the COVID-19 pandemic on areas of life, total.

If we look at the impact of the pandemic on certain areas of life only in people without mental health problems, the deterioration of social contacts with extended family and friends stands out the most in this group of respondents also, as reported by 53.3% of persons. This was followed by a negative impact on physical activity, which was reported by 26.4% of people without mental health problems (Figure 17).

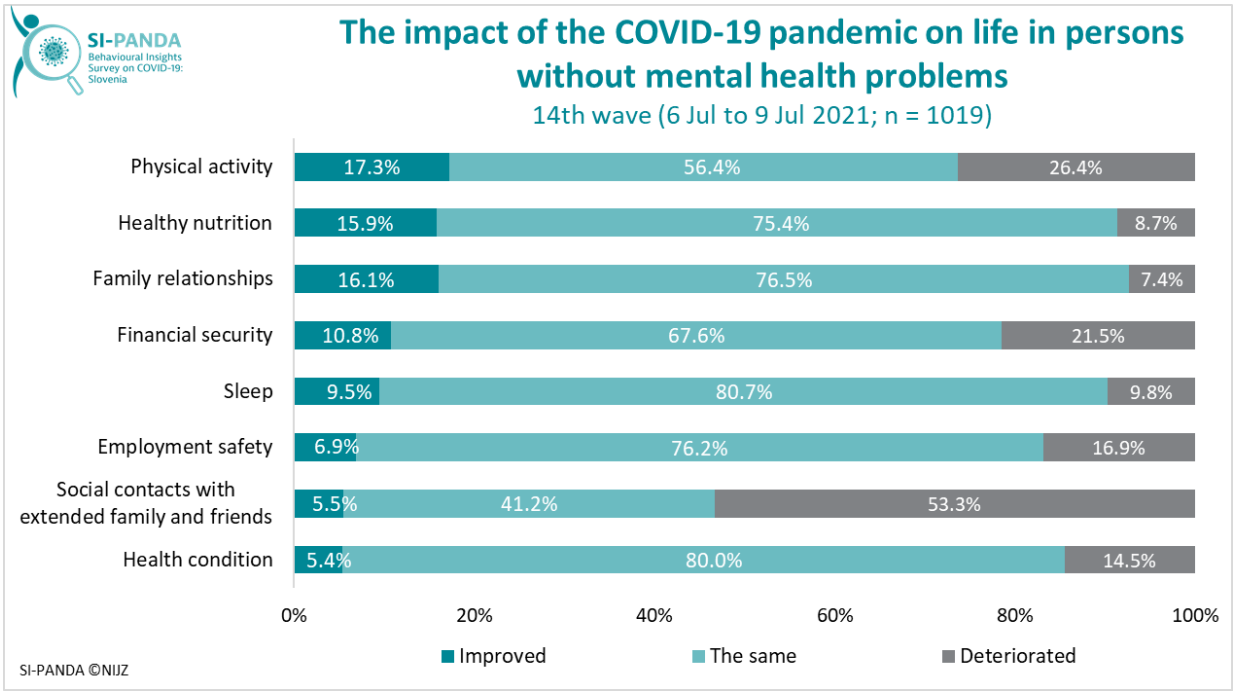

Figure 17: The impact of the COVID-19 pandemic on areas of life in persons without mental health problems, total.

Experiencing stress

In prolonged emergencies and uncertainties, such as an epidemic, the experience of stress usually increases, but there may also be an immediate adjustment, especially if the stressors remain at a similar, albeit higher, level or increase gradually[5].

In the 14th wave of the survey, respondents were asked about how often they felt tense, stressed or under a lot of pressure in the last 14 days. A fifth of respondents (20.0%) experienced stress daily or often, most often in the age group 18 to 29, where the share was 32.8% (Figure 18). Experiencing stress decreases with age and is the lowest in the oldest age group from 65 to 74 years, namely 6.8%. Compared to the data from the 13th wave of the survey, the shares of experiencing stress daily or often in the 14th wave of the survey are slightly lower (by 4 percentage points). Compared to the CINDI 2020 survey, which took place about a year ago, from 11 May to the end of June 2020, the shares of respondents who experience stress on a daily or frequent basis are higher (by about 4 percentage points). However, the distribution of frequencies by age groups remains approximately the same on all surveys.

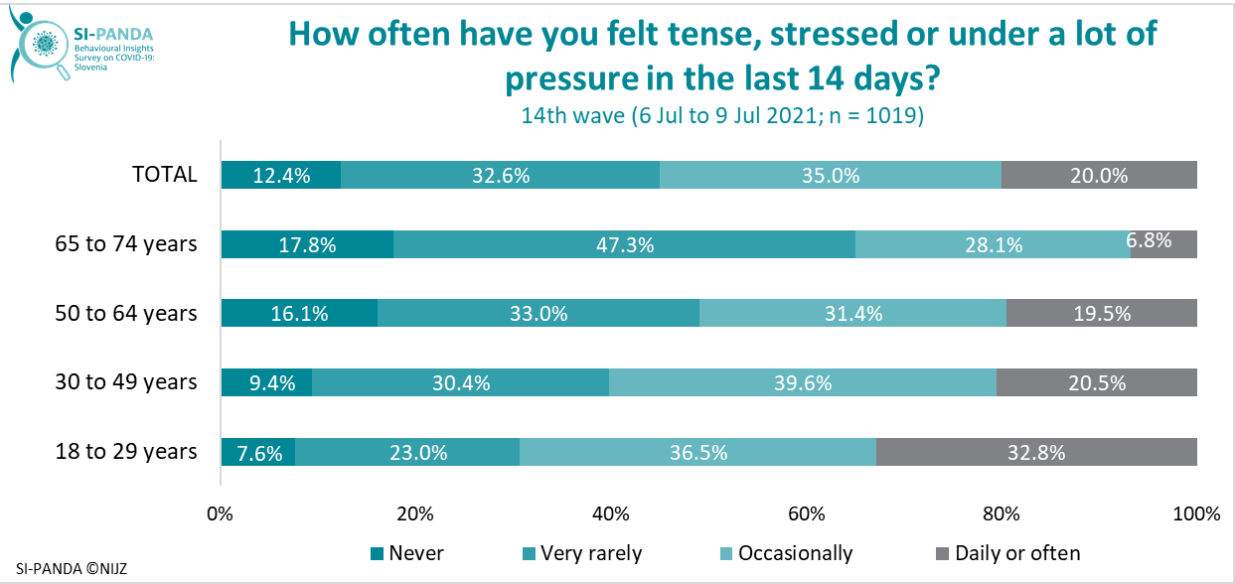

Figure 18: Frequency of experiencing stress in the last 14 days, total and by age groups.

Stress is more often experienced by women, i.e., it is experienced daily or often by 23.4% of surveyed women and by 16.9% surveyed men. Similar results were obtained in the CINDI 2020 survey and in foreign studies[6].

Stress is, as expected, experienced more often by respondents who show signs of depressive disorder, namely by more than half (64.3%) compared to those with mental health problems

[5] Fu S, Greco LM, Lennard AC in Dimotakis N. Anxiety responses to the unfolding COVID-19 crisis: Patterns of change in the experience of prolonged exposure to stressors. Journal of Applied Psychology 2021; 106(1): 48.

[6] Kowal, M., Coll-Martín, T., Ikizer, G., Rasmussen, J., Eichel, K., Studzińska, A., Koszałkowska, K., Karwowski, M., Najmussaqib, A., Pankowski, D., Lieberoth, A. and Ahmed, O. (2020), Who is the Most Stressed During the COVID-19 Pandemic? Data From 26 Countries and Areas. Appl Psychol Health Well-Being, 12: 946-966. https://doi.org/10.1111/aphw.12234.

(34.7% experience stress daily or often) and those without mental health problems (only 7.4% experience stress often or daily) (Figure 19).

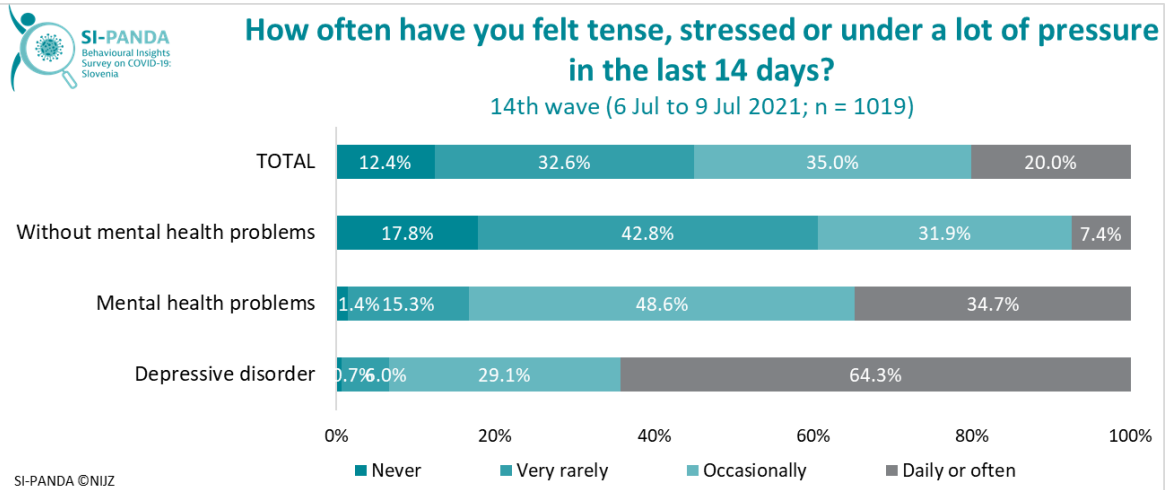

Figure 19: Frequency of experiencing stress in the last 14 days, total and by mental health problems.

Respondents cited workload as the most common reason for stress in the 13th and 14th waves of the survey (42.5% in 114th wave and 41% in the 13th wave. This is followed by concerns about: possible new restrictions and measures (34.9%; 26.3% in the 13th wave), which increased significantly in the 14th wave compared to the 13th wave, as well s concerns about untrue information about SARS-CoV-2 virus (31.2%; in the 13th wave 28.6%). Concerns about the uncertain financial future were slightly lower in the 14th wave (27.7%; in the 13th wave: 31.6%), the health of family or friends (24.4%; in the 13th wave: 26.6%) and concerns about their own health (20.5%; in the 13th wave: 19%). The biggest gender gaps are in workloads, which are a more common cause of stress for men than for women, and for concerns about the health of family or friends, which is a more common cause of stress for women than for men. For other causes, the gender differences are smaller (Figure 20).

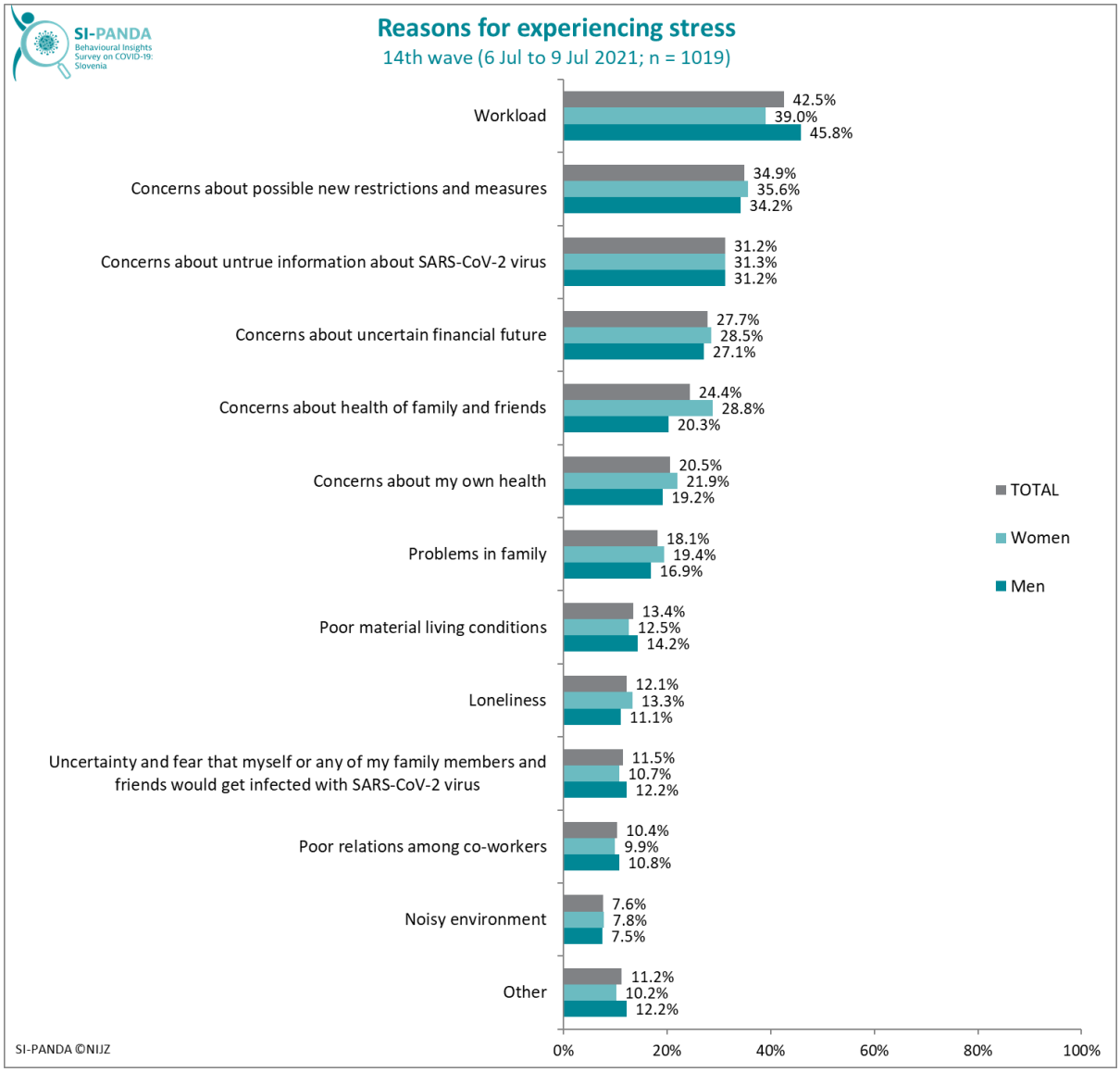

Figure 20: Reasons for stress, total and by gender.

The biggest differences in the causes of stress compared to the 13th wave of the survey, are the concerns about possible new restrictions and measures, where in the 14th wave the share of those who cited this as one of the causes of stress is almost 9 percentage points higher. Concerns about new restrictions and measures increased in the 14th wave for both men and women (Figure 21), as well as for all age groups, with the largest increase in the 50-64 age group and the smallest in the 18-29 age group, where the shares of concerned respondents in both waves were the highest (Figure 22).

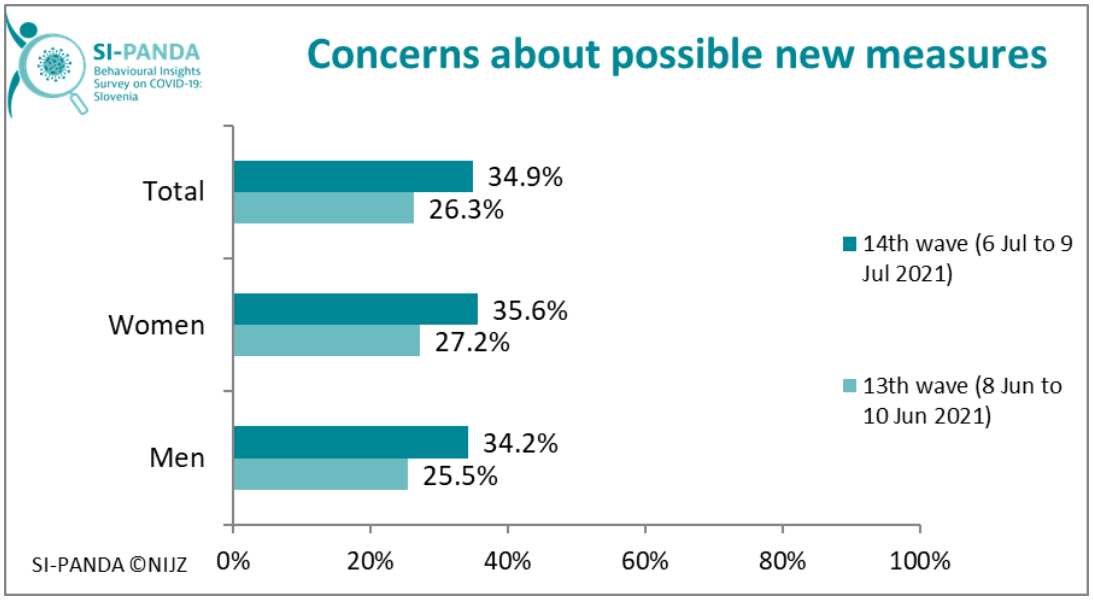

Figure 21: Concern about possible new restrictions and measures, total and by gender, by survey waves.

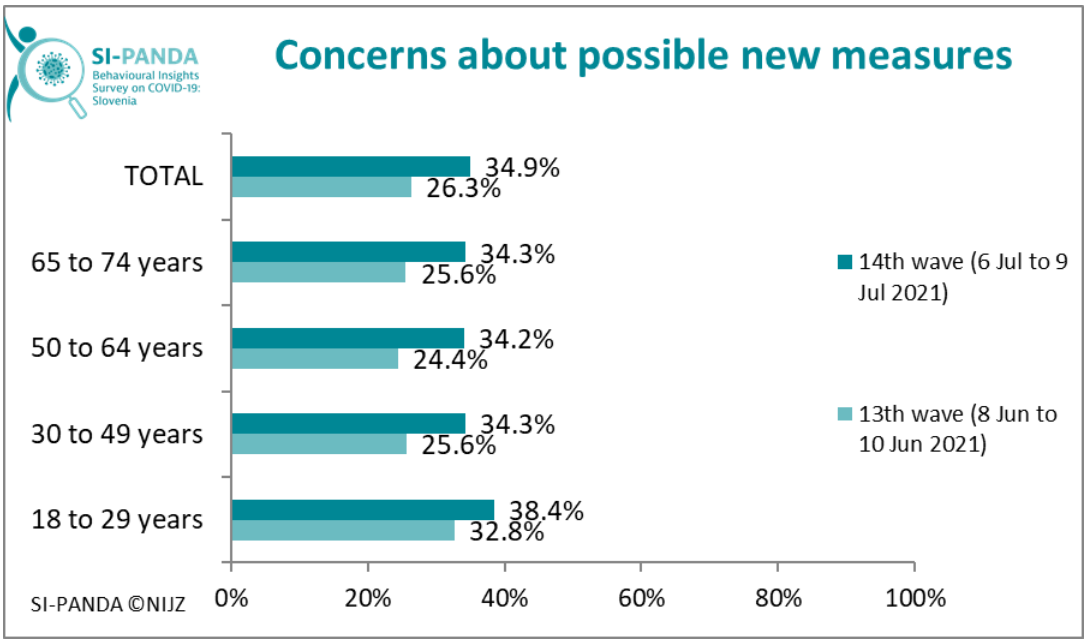

Figure 22: Concern about possible new restrictions and measures, total and by age groups, by survey waves.

The biggest differences between the more and less educated in the causes of stress are in experiencing workloads and poor material living conditions. Respondents with higher educational attainment were more likely to experience stress due to workload and poor relationships with co-workers; respondents with secondary and lower education were more likely to experience stress due to poor material conditions compared to more educated.

Most respondents (82.4%) managed tensions, stress and pressure easily or with some effort, 14.6% had major problems, and 3.0% had severe problems or did not manage stress (the

percentages are somewhat lower than in the 13th wave of the survey). Women and respondents in 30-49 and 18-29 age groups had more problems with stress management.

In the 14th wave of the survey, half of the respondents (50.3%; in the 13th wave: 53.3%) reported that they could always or often find a way to relax when they needed to, and 11.2% (in the 13th wave: 10.9%) reported that this happened very rarely or never. In terms of mental health problems, those with signs of depressive disorder very rarely or never found a way to relax (39.6%; in the 13th wave: 37.4%), followed by those with mental health problems (16.2%; in the 13th wave: 12.0%) and those without mental health problems (4.5%; in the 13th wave: 4.6%) (Figure 23). Respondents in the 18-29 age group least often found a way to relax, while the respondents in the 65-74 age group found a way to relax most often. In terms of education, it is interesting that there are important differences between more and less educated people, those with lower education (high school or less) more often reported that they always find a way to relax when they need to and more often find a way to relax compared to respondents with a college degree or higher. This indicates that the group of respondents with a high school education or less is very heterogenous.

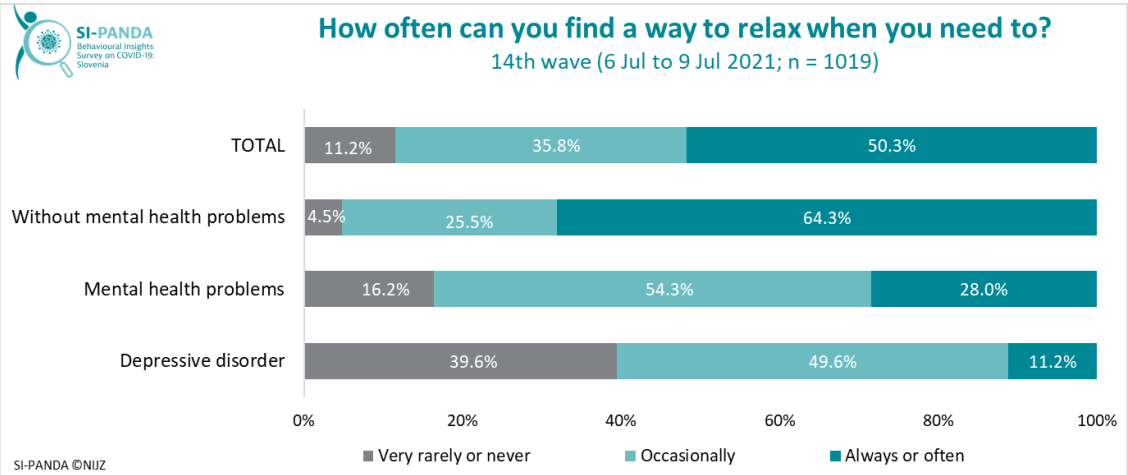

Figure 23: Frequency of relaxation, total and by mental health problems.

"Recovered, vaccinated, tested (RVT)" rule

From 11th to 14th wave of the survey, we were interested in what the respondents thought about free testing for SARS-CoV-2 virus infection and about the availability of services and activities under certain conditions. In the 14th wave of the survey, 65.3% of respondents agree that the population should have two free PCR tests per month, which would be available without health reasons – the share of these persons decreased by 2.2 percentage points compared to the 13th wave. If the condition for using the service is a negative test, 66.4% of respondents believe that a rapid antigen test should be sufficient. 47.8% believe that all services and activities should be available without any COVID-19-related evidence, and only 31.4% agree that only PCR testing method should be used as evidence of a negative test (Figure 24).

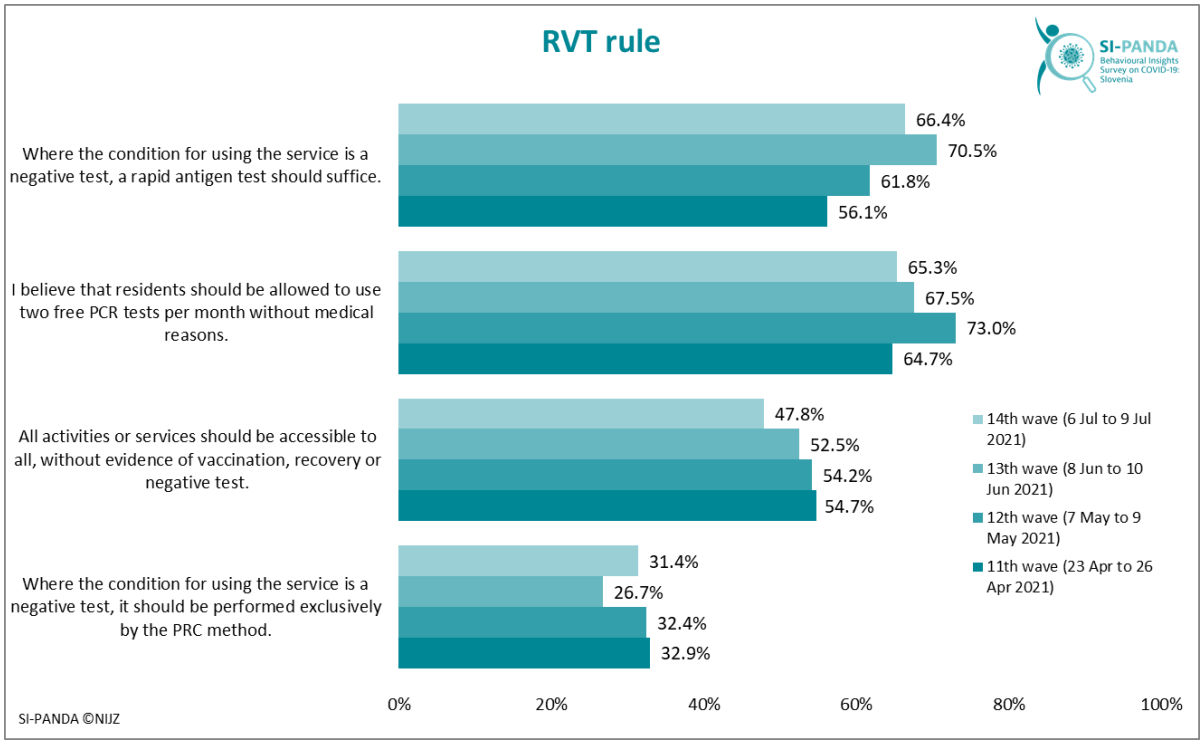

Figure 24: Respondents' agreeing on COVID-19 testing and conditions for using services, total and by survey waves.

With regard to age groups, the youngest age group, as expected, has the lowest shares of those who believe that only a test performed by the PCR method should suffice as evidence (18.1%), while in the oldest age group, a good half of respondents share this opinion (Figure 25).

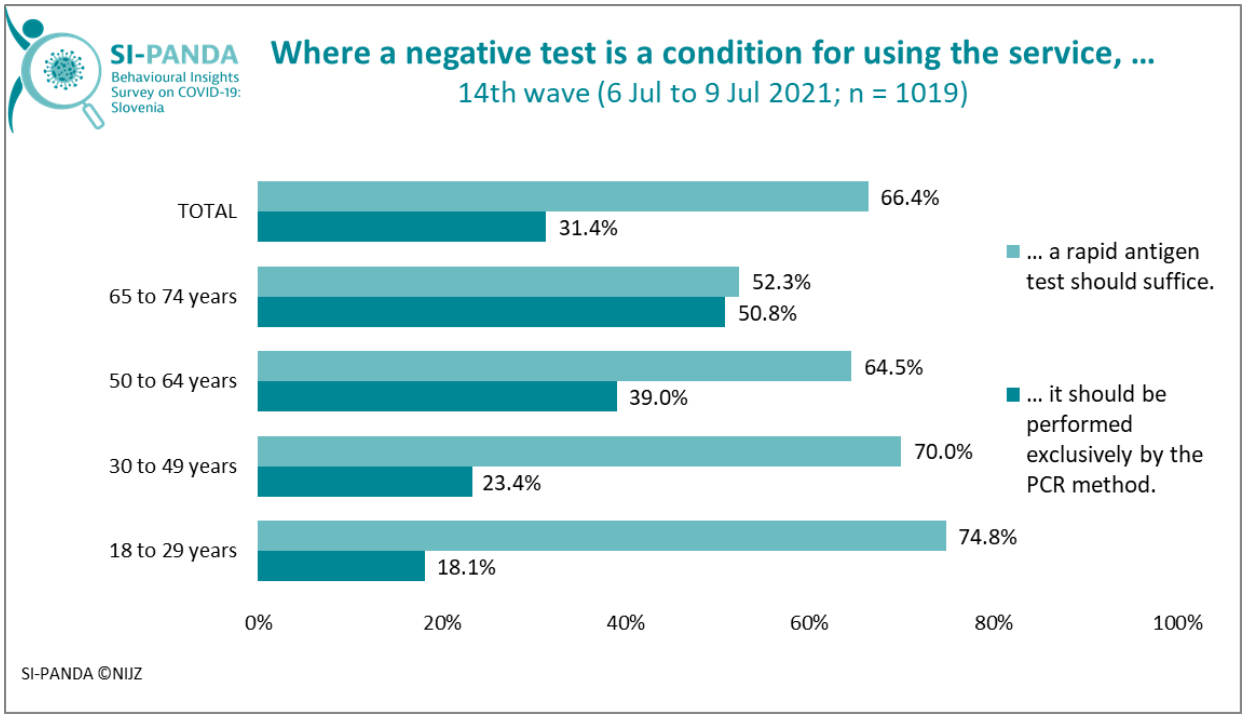

Figure 25: Respondents' opinion on the fact that only a negative PCR test should be sufficient as evidence, total and by age groups.

If we compare respondents with regard to vaccination rate, among those who do not intent to be vaccinated, the share of those who believe all services and activities should be accessible without any COVID-19-related evidence is the largest (Figure 26).

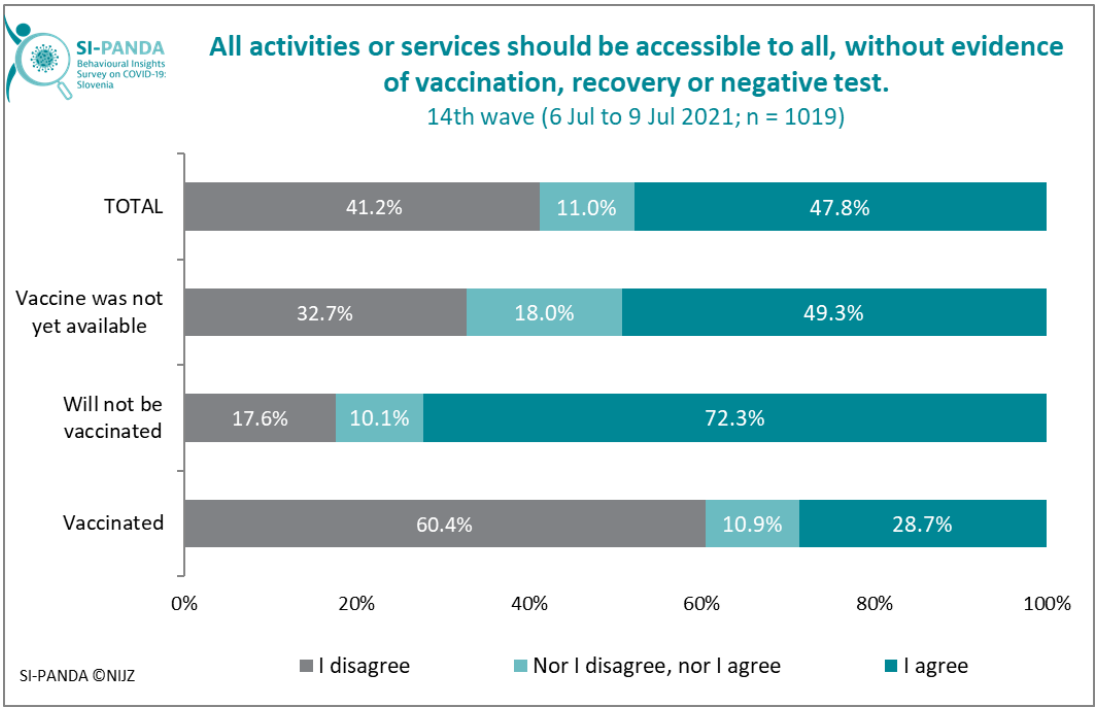

Figure 26: Respondents' opinion on whether all activities and services should be accessible to all, without any RVT evidence, total and by vaccination rate.

Problems after SARS-CoV-2 virus infection recovery – post-COVID syndrome or long COVID

Most people who get COVID-19 recover in a few weeks. But researchers, as well as healthcare professionals, find that in some people, individual symptoms persist for months after the diagnosis, or they disappear and reappear weeks or months after initial recovery. Abroad, these problems have been termed post-acute COVID-19 or long COVID. It is more common among hospitalized and elderly patients, but it also occurs in those who have overcome a milder form of the disease and also among young adults who did not have health problems before the infection[7]. The symptoms of long COVID are varied, e.g., fatigue, shortness of breath, insomnia, memory and concentration problems (i.e., foggy brain), heart palpitations, pain in various parts of body, diarrhoea, nausea, etc.[8].

In the 14th wave of the survey, 19.8% of respondents report that they are or have been infected with the SARS-CoV-2 virus so far, of which 9.2% report that their infection was asymptomatic, 64.8% report that the course of the disease was mild, in 23.9% the course of the disease was more severe, but did not require hospital treatment, and 2.0% had been treated in the hospital. Respondents who are or have been infected with SARS-CoV-2 virus so far were asked in the 11th, 12th, 13th and 14th waves about possible problems after recovering from SARS-CoV-2 virus infection.

According to the WHO, a quarter of people who become infected with the SARS-CoV-2 virus have some health problems for at least one month after infection, and one in ten patients is thought to have some symptoms after 12 weeks[9]. Therefore, we were interested in whether the subjects who recovered from COVID-19 had or still have one of the symptoms shown below one month after recovering from SARS-CoV-2 virus infection (Figure **27**).

We can find that in 14th wave most people (69.3%; in the 13th wave: 73.5%) still had some problems one month after recovering from the infection. The most common problems were malaise, fatigue and lack of energy, reported by more than a third of recovered patients (38.3%; in 13th wave: 41.9%), a good quarter reported problems with taste perception of taste and smell (26.6%; the same percentage was also in the 13th wave), a fifth reported muscle and joint pain (20.1%; in the 13th wave: 27.1%), followed by problems with concentration and memory (17.6%; in the 13th wave: 16.3%), and sleep disorders (17.6%; in the 13th wave: 24.9%). Chest pain and shortness of breath were also reported (14.6%; in the 13th wave: 15.9%), as well as unpleasant feeling of fear, sadness, heart palpitations and digestive problems, etc. (Figure **27**). In all four waves of the survey, the average number of problems is the same (2 problems). The data therefore show that the share of people who have health problems one month after COVID-19 is significant, so it is important that the health status of patients is monitored for a longer period of time.

[7] Brackel, CLH, Lap, CR, Buddingh, EP, et al. Pediatric long-COVID: An overlooked phenomenon? Pediatric Pulmonology. 2021; 56: 2495– 2502. https://doi.org/10.1002/ppul.25521.
[8] Nalbandian, A., Sehgal, K., Gupta, A. et al. Post-acute COVID-19 syndrome. Nat Med 27, 601–615 (2021). https://doi.org/10.1038/s41591-021-01283-z.
[9] 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.

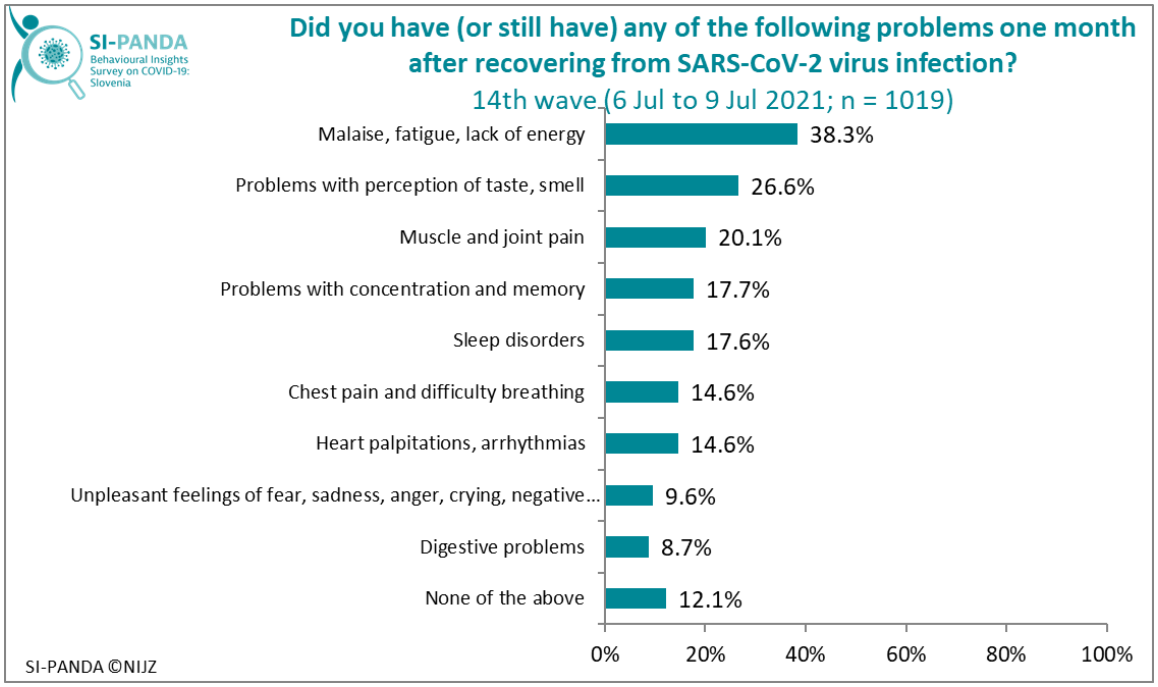

Figure 27: Health problems one month after the respondents had already recovered from SARS-CoV-2 virus infection, total.

Comparisons of the last four waves show that the share of persons who had one problem is around 50%, while the share of those who had two problems rose from 12.5% to around 17% in 12th and 13th waves and then fell to 14.3% in the 14th wave. In the 14th wave, the share of people who had 5 or more problems decreased compared to the 13th wave of the survey (Figure 28).

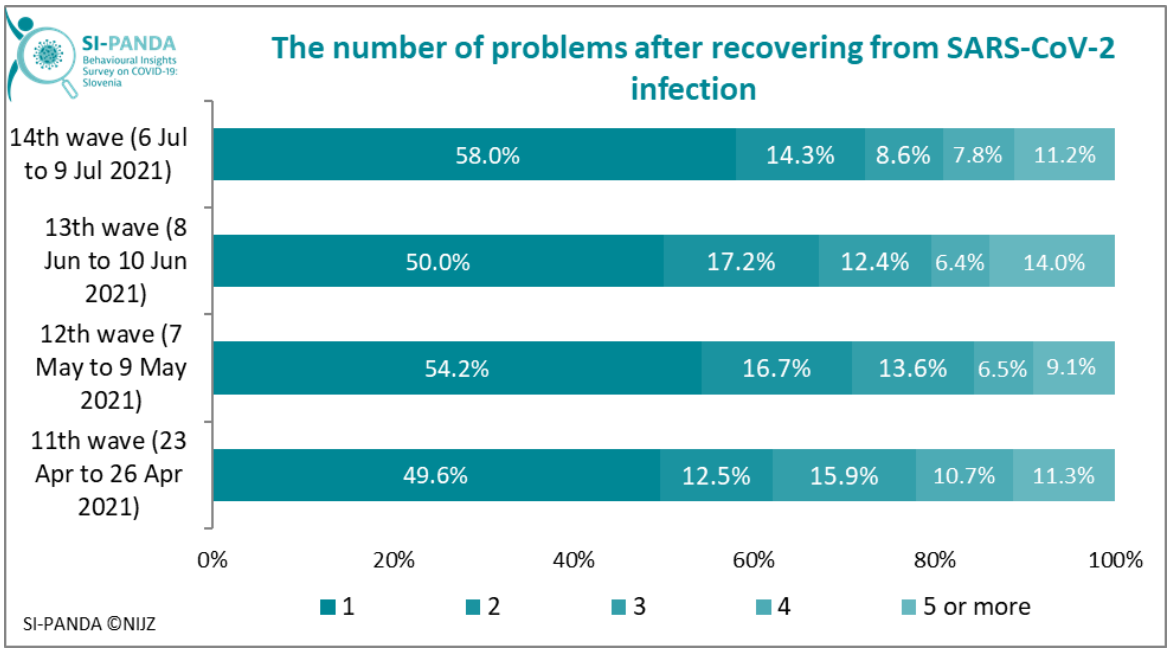

Figure 28: The number of problems after recovery from SARS-CoV-2 infection, by survey waves.

Surprisingly, a large share of persons does not consult a doctor about problems after recovery from COVID-19. In the 11th wave there were 58.7% such respondents, in 12th wave 65.2%, in 13th wave 58.2% and in 14th wave 65.3%.

When asked how long the problems lasted after the recovery from infection, most of them (46.4%) answered that 3 months and more, a little less than a third (31.8%) answered that the problems lasted up to 1 month and a fifth (21.8%) answered that they lasted from 1 to 2 months. The majority of respondents (74.7%) answered that the problems affected their work, caring for things at home and relationships with people: almost half (48.7%) stated that the problems had a slight impact on work, care for the home and relationships with people, and 26.0% stated that the problems impacted these activities very or extremely. A quarter of recovered respondents (25.3%) reported that the problems did not affect their daily functioning.

Given this, it can be assumed that these are, on the one hand, mild and non-specific health problems, but on the other hand, it is often a rather complex picture, to which the profession is currently paying too little attention. However, clear guidelines for the treatment of people with long COVID and their systematic monitoring are also lacking.

Much is still unknown about the causes and long-term effects of SARS-CoV-2 infection on humans, but research is underway. It is already clear that long COVID is relatively common and has a significant impact on an individual's ability to work and his or her daily life. All this can have economic consequences for the individual, his family and society. Abroad, many major health centres are already opening specialized clinics to care for people who have permanent symptoms after recovering from COVID-19. Support groups are also available. Patient registries and other types of epidemiological surveillance of long COVID, as well as cohort and other research, are also being established.

Most people with COVID-19 recover quickly. Given that research shows that the risk of long-term health problems after infection with the SARS-CoV-2 virus is not so small, vaccination against COVID-19 is also important in this regard. However, precautionary measures, such as washing hands, wearing masks indoors, maintaining physical distance, avoiding crowds and room ventilation, must continue to be strictly followed.

Mental health problems

The COVID-19 pandemic highlighted the importance of mental health and, according to research conducted in recent months in Slovenia, increased the plight of many people in Slovenia. These can manifest themselves in mental health problems and later also in mental disorders. In previous waves of the SI-PANDA online survey, we found that the majority of the population adapts relatively well to the "pandemic lifestyle". However, we drew attention to mental health inequalities that are present in Slovenia – in the 8th wave of the study, we found that during the pandemic more mental health problems are present in young people. It should be noted that it is not merely the age that contributes to the prevalence of mental health problems among young people. According to foreign researchers, mental health problems are the result of a complex mix of factors, such as insecurity, reduced social contacts, poverty and lack of financial security, exposure to violence, and the presence of other chronic diseases[10]. The combination of exposure to and SARS-CoV-2 infection, existing and emerging risk factors, as well as protective factors against the development of mental health problems, determines the risk of developing a mental disorder for each individual. Thus, a multitude of different groups are formed among the population, which are in a vulnerable position for the development of mental health problems. Therefore, adolescents may generally be at higher risk, which however does not mean that this applies to all adolescents or that all elderly people are at lower risk than adolescents. Within all age groups as well as other characteristics that describe population groups, we can identify more and less vulnerable groups for the development of mental health problems.

In the 14th wave of the survey, we re-examined the presence of mental health problems. We used a questionnaire designed to measure the presence of symptoms of anxiety and depressive disorder. Both questionnaires ask about experiencing various problems in the past 2 weeks.

Anxiety disorders are characterized by anxiety, which is an unpleasant, fear-like emotional state that hinders an individual in his daily life. Feeling od anxiety, irritability, excessive worry and tension may also be present.

The share of the population experiencing symptoms of moderate or severe anxiety equals 11.4% (Figure **29**). This group of the population is exposed to an increased risk of developing anxiety disorder or it my already be present in them. Mental disorders are diagnosed by trained professionals based on a procedure that cannot be properly replicated in surveys, such as the SI-PANDA survey. Therefore, we are talking about the risk of developing anxiety disorder, knowing that in the presented share are also individuals who have already been diagnosed with the disorder or it would be diagnosed by trained professionals. The share of persons with symptoms of moderate or severe anxiety is higher in the younger population, which is in line with findings from abroad[10]. There are 21.0% of such persons in the 18-29 age group, and then the share decreases toward the oldest age group, 65-74 years, where it is 6.2%. Most of the published comparable studies examining the symptoms of anxiety were conducted in 2020. A survey in Ireland[11] found that 20.0% of the population was at risk of anxiety disorder, with Australian[12]

[10] Fancourt, D., Bu, F., Mak, H. W., & Steptoe, A. (2021). COVID-19 social study. Results release, 36.

[11] Hyland, P., Shevlin, M., McBride, O., Murphy, J., Karatzias, T., Bentall, R. P., ... & Vallières, F. (2020). Anxiety and depression in the Republic of Ireland during the COVID-19 pandemic. Acta Psychiatrica Scandinavica, 142(3), 249-256.

[12] Batterham, P. J., Calear, A. L., McCallum, S. M., Morse, A. R., Banfield, M., Farrer, L. M., ... & Dawel, A. (2021). Trajectories of depression and anxiety symptoms during the COVID-19 pandemic in a representative Australian adult cohort. Medical Journal of Australia, 214(10), 462-468.

researchers reporting slightly lower rates, i.e., 16.4% to 13.5%. During the first wave of the pandemic in Slovenia, Kavčič in Podlesek conducted a survey on a random sample, where they found that the share of study participants with moderate anxiety was 8% and with severe anxiety 2%[13].

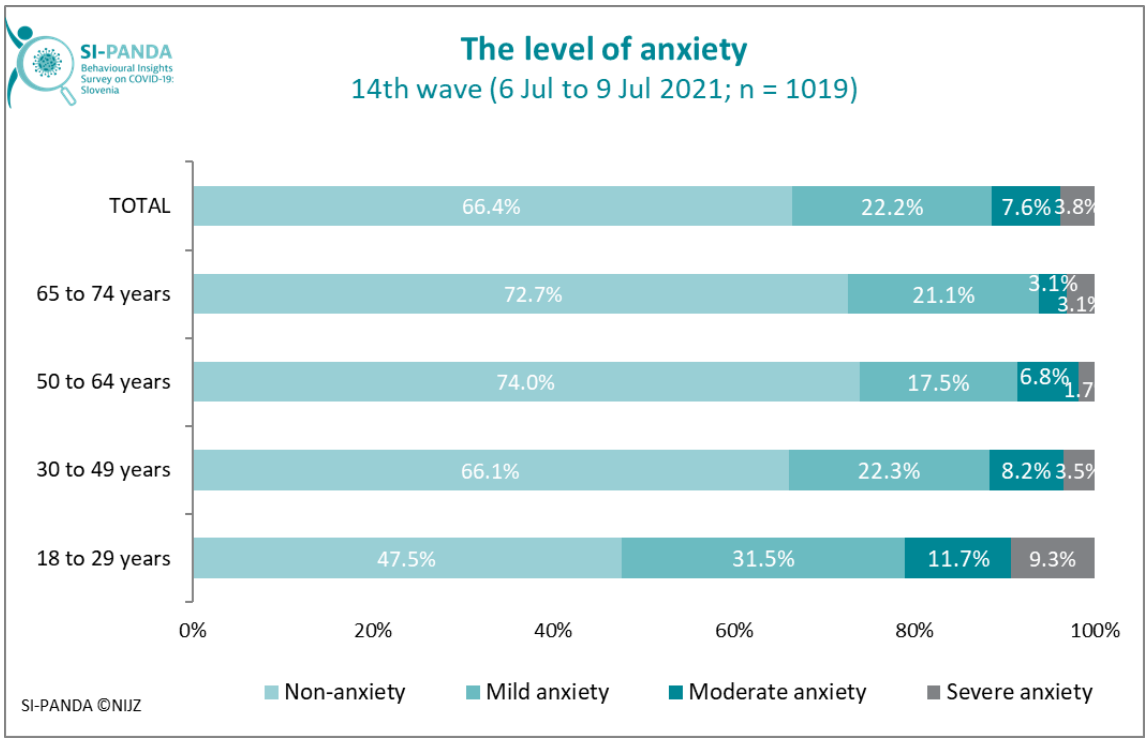

Figure 29: The level of anxiety, total and by age groups.

The risk of developing anxiety disorder is higher in women in all age groups (Figure 30). Women aged 18 to 29 stand out, where the share of people at risk of anxiety disorder is 25.9%. The share of men at risk of anxiety disorder in the same age group is also high (17.1%). This share is twice as low for men aged 30 to 64, and only 2.6% for those aged 65 to 74. The lowest share of women at risk of anxiety disorder is between the ages of 65 to 74 (9.5%).

[13] Kavčič, V., & Podlesek, A. (2020). Samoocena anskioznosti med epidemijo COVID-19 v Sloveniji. V Ž. Lep & K. Hacin Beyazoglu (Ur.), Psihologija pandemije: Posamezniki in družba v času koronske krize. Znanstvena založba Filozofske fakultete Univerze v Ljubljani.

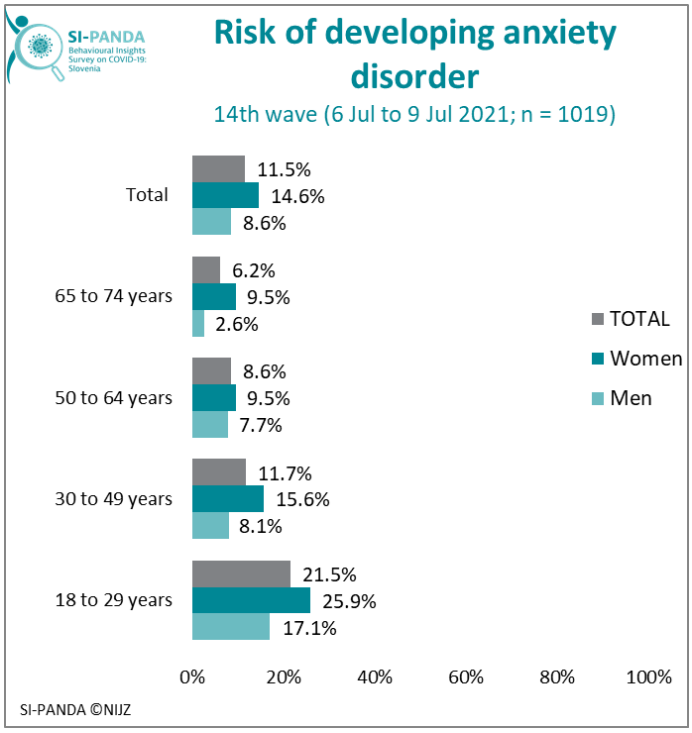

Figure 30: The risk of developing anxiety disorder, total, by age groups and by gender.

Depressive disorder is characterized by an intertwining of mental (e.g., difficulty concentrating), emotional (e.g., apathy, numbness), behavioural (e.g., weepiness) and physical symptoms (e.g., feeling of suffocation). We talk about depressive disorder when some of the key symptoms and several others appear, and these must last at least two weeks in order to be able to talk about depression as a disorder ant not merely as a temporary or transient condition. In the 14th wave of the survey, symptoms characteristic of depressive disorder (including symptoms of major depression) were present in 7.5% of the adult population, and the share of people with individual symptoms of depression[14] equalled 5.6% (Figure 31). Symptoms of major depression were highest among the youngest respondents – 14.1% among young adults aged 18 to 29 and among respondents who estimate their financial situation as currently worse than before, which is in line with research from abroad (Figure 31, Figure 32).

[14] The questionnaire used in the research enables the identification of people who are at increased risk of developing depressive disorder – these are presented in the text and pictures with the category "symptoms of major depression" or. symptoms of depressive disorder. Participants in the study, in which the presence of individual symptoms of depression was detected, but which were not expressed to such extent as to label these persons as at increased risk of developing depressive disorder, are presented with the category "symptoms of depression" or other symptoms of depression.

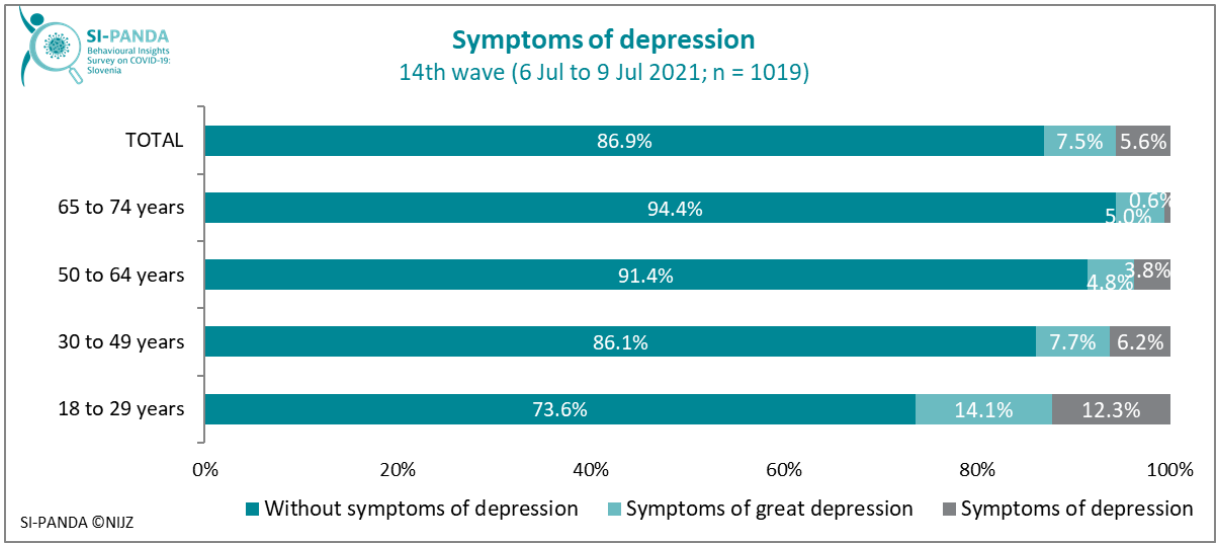

Figure 31: Presence of symptoms of depression, total and by age groups.

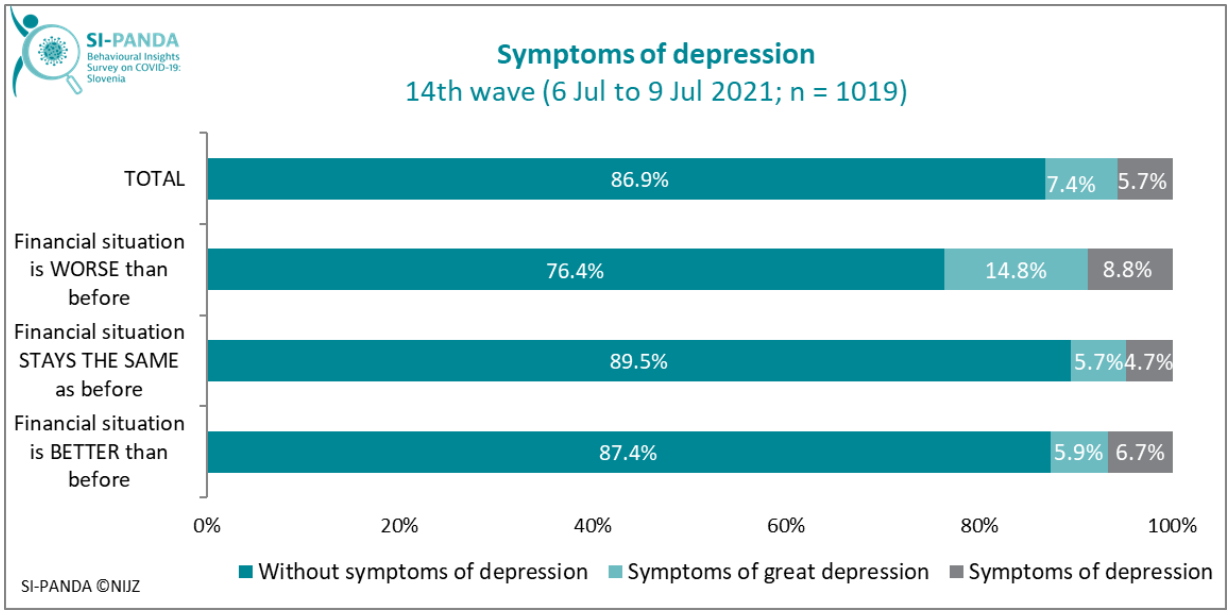

Figure 32: Presence of symptoms of depression, total and by perception of financial situation in the last 3 months.

Seeking help due to mental distress

In the past period, we have experienced several waves of the pandemic and numerous measures that have thoroughly affected the lives of the people of Slovenia. Many experienced mental health problems before the pandemic, and many faced distress for the first time during the pandemic. In the last 12 months, 5.4% of respondents sought professional help due to mental distress. Most often, they sought help from another mental health professional (59.6%) or a doctor (55.9%) (Figure 33).

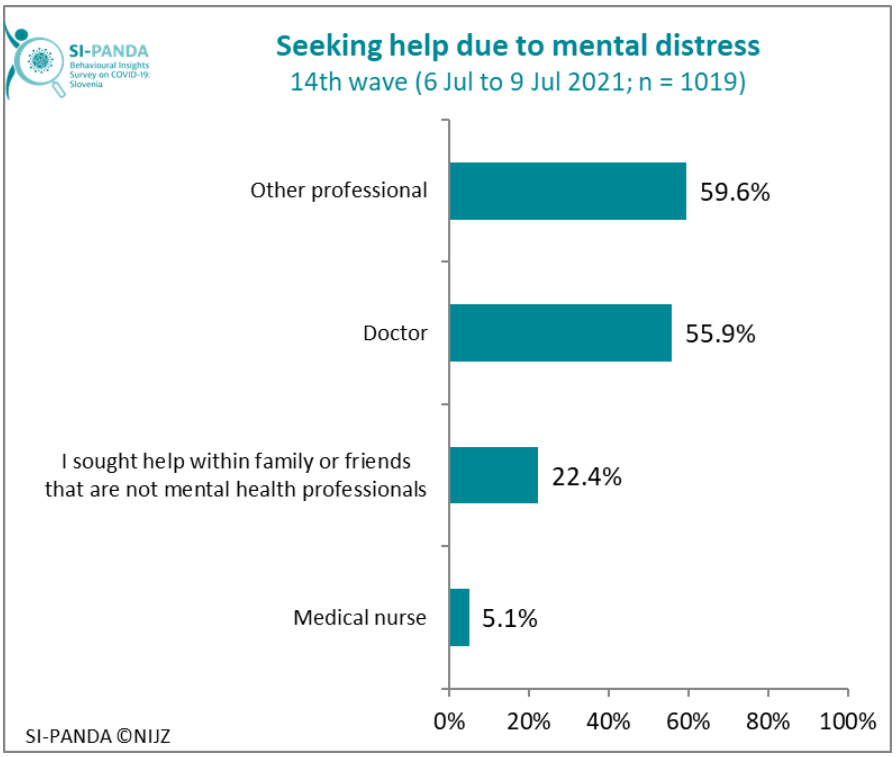

Figure 33: Demonstration of sources of help in respondents who sought help due to mental distress in the past 12 months.

Of the respondents who did not seek help, 79.2% stated that they did not need help. Among the respondents who did not seek help but did not state that they did not need help, the most common reason was the belief that they could help themselves (74.0%). Almost half of them did not want any help, and a fifth of the respondents did not want anyone to find out that they were looking for help due to mental distress (Figure 34).

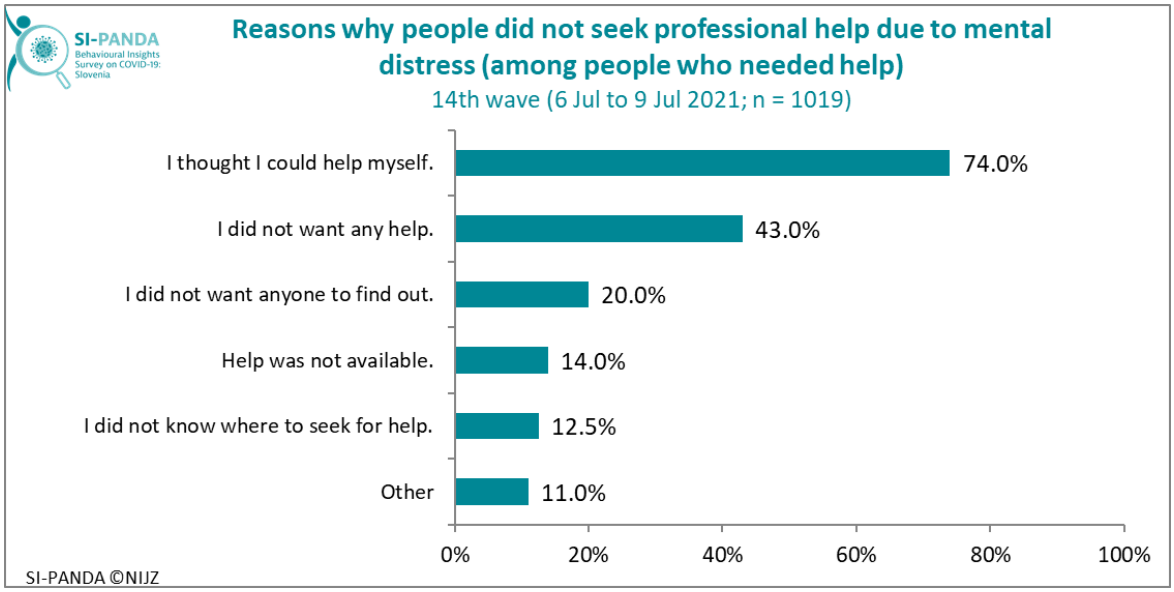

Figure 34: Reasons for not seeking professional help due to mental distress among respondents who needed help.

National Institute of Public Health

Trubarjeva 2, 1000 Ljubljana

Telephone: + 386 1 2441 400

E-mail: info@nijz.si

Available at: http://www.nijz.si