CAREC INSTITUTE

Analysis of Public Attitudes towards COVID-19 Vaccination in Selected CAREC Countries

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RESEARCH REPORT

Analysis of Public Attitudes towards COVID-19 Vaccination in Selected CAREC Countries (Georgia, Kazakhstan, Kyrgyzstan, Mongolia, Pakistan, Tajikistan, and Uzbekistan)

April 2021

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CONTENTS

Tables

Figures

Diagrams

Abbreviations

ADB	Asian Development Bank
CAREC Institute	Central Asia Regional Economic Cooperation (CAREC) Institute
WHO	World Health Organization
SARS-CoV-2	Severe acute respiratory syndrome-related coronavirus 2, enveloped single-stranded (+) RNA virus belonging to the genus Betacoronavirus
COVID-19	Abbreviation of COronaVIrus Disease 2019

EDITORIAL

COVID-19 has tested, and in many cases, exposed the limits of health systems, shortcomings of economic order and globalization, inadequacies of governments in conjuring up viable public policy responses, structures of built-in biases of multilateral approaches to deal with global challenges and the ability of epidemiological sciences in developing reliable disease control measures and instruments in shortest possible time. At the onset of pandemic, a consensus emerged that the vaccination was the ultimate solution for humanity's hopes of disease prevention, herd immunity and return to normalcy. Hence the mankind watched with great interest, anticipation and hope as various programs of vaccine development kick-started around the world with an objective to develop vaccines that have proven efficacy, are cost-effective, and able to get regulatory nods in record times. In all fairness, science and scientific communities have come up to this seemingly unsurmountable challenge, as several vaccines completed trial stages in record time, by the first anniversary of the WHO's declaration of COVID-19 pandemic.

However, this fast-forward on scientific front has been weighed down by a daunting challenge of modern times; infodemia in the age of social media. Counter-scientific, pseudo-scientific and conspiracy-theory laden disinformation blurred public's perception of disease, skewed understanding of preventive measures and seriously jeopardized public's attitudes towards vaccination programs.

In this backdrop, the CAREC Institute undertook this project, with support of Asian Development Bank (ADB), to identify and understand public's attitudes towards vaccination in seven member countries of the CAREC Program by using latest survey techniques. Objective of the project is to help member governments develop better understanding of public attitudes for a better roll-out of vaccination programs for maximum coverage needed for herd immunity and return to normal. Time is critical, as pandemic has already extracted huge cost on economies, human health, social orders, and education. Vulnerable groups have borne the brunt of the pandemic and ensuing consequences.

Findings of the project identify some stark realities and challenges for vaccination programs in the seven countries and suggest policy recommendations that can be useful for addressing those challenges. While the majority of the population surveyed do demonstrate trust in vaccines, there are significant numbers who doubt the efficacy of it. A quarter of respondent found it difficult to assess the efficacy, pointing to a significant information gap. A certain percentage of respondents is in a state of denial altogether regarding existence of the disease. Among those accepting existence of the disease and are willing to be vaccinated, free vaccination is the preferred option for the majority. One interesting finding is that the main determinant of vaccination decision is protection of the family. Survey also captures the deterioration in financial situation for a significant percentage of population, and mounting fears in case pandemic persists. For information, preferred media is television, followed by social media and personal circles.

These and other findings lead to very useful policy recommendations, which can be used by policy makers to fine-tune their vaccination programs. Governments need serious action for tackling dis-information, by using medical professionals, opinion leaders and wherever needed, religious mentors for demystifying the disease and vaccination programs. Meanwhile, governments need to make vaccines public goods, and devise national cost-free vaccination programs on top priority basis. Information campaigns need to be designed professionally, using the most trusted medium of communication and most effective communicators,

leveraging scientific narratives. For the ease of policy makers and enhanced utility, the report also shares country specific sets of responses to help taking into account country variations.

In all, the project outcome is a well-developed report, highlighting challenges to vaccination programs in the countries studied, identifying sets of very useful recommendations. Recommendations of the report can form the basis of evidence-based and structured information campaigns in support of vaccination programs that will serve as bulwark against the pandemic in the surveyed countries. Success of the vaccination programs will determine the pace and direction of transition to normal, both within the region and beyond.

Syed Shakeel Shah
CAREC Institute Director

INTRODUCTION

The year 2020 - the time of SARS-CoV-2 coronavirus spreading around the world has become a challenge for humanity. The pandemic has affected all aspects of the lives of people, societies, and states. The words *"quarantine," "lockdown," "state of emergency," "epidemic," "pandemic," "herd immunity"* and related concepts have appeared in everyday use. We have begun to use masks, disinfect everything, wash our hands more often, and physically distance ourselves from each other. The COVID-19 crisis has affected the global economy, world politics and international relations, and has changed the values and attitudes of societies, our habits and everyday lives.

The intensified use of digital technologies, the Internet, social networks during the pandemic gave rise to *infodemia* - the spread of false information and data that affects public opinion. "...Disinformation is polarizing public debate on topics related to COVID-19; amplifying hate speech; heightening the risk of conflict, violence and human rights violations; and threatening long-terms prospects for advancing democracy, human rights and social cohesion"[1] said a joint statement by WHO, UN, UNICEF, UNDP, UNESCO, UNANDS, ITU, the UN Global Pulse Initiative and the IFRC

There is a multitude of opinions in societies related to the strategies pursued by states attempting to conduct an effective policy to combat COVID-19. It is necessary to study them. Among the most important mechanisms for reducing the spread of the pandemic is vaccination. Ensuring affordable and effective vaccination programs for the population of countries is important to maintain public health and reduce the impact of the coronavirus crisis on the daily life of societies and the economy. The CAREC Institute[2] together with the Public Opinion Research Institute[3] and with support by the Asian Development Bank conducted a study of public opinion on immunization strategies in selected CAREC countries[4].

Key objective of the project: The main objective of this work involves identification of key public attitudes regarding COVID-19 vaccination in selected CAREC countries, and the development of a set of recommendations to governments in the region for effective responses to public concerns whilst planning and conducting public immunization campaigns.

This sociological project was carried out in seven CAREC member countries working on solutions to this problem -- Georgia, Kazakhstan, Kyrgyzstan, Mongolia, Pakistan, Tajikistan, and Uzbekistan. The subjects of the study were citizens aged 18 and over, permanently residing in the country. In each country, 1,000 respondents were interviewed. The total number of respondents was 7000 respondents. The sample was representative in terms of a set of main socio-demographic parameters - gender, age, nationality, and place of residence. The country-wide surveys were conducted by professional organizations and sociologists with extensive experience in the conduction of such research.

Fieldwork was carried out from December 2020 to January 2021, prior to mass vaccination in all countries.

[1] Joint statement by WHO, UN, UNICEF, UNDP, UNESCO, UNAIDS, ITU, UN Global Pulse, and IFRC //https://www.who.int/ru/news/item/23-09-2020-managing-the-covid-19-infodemic-promoting-healthy-behaviours-and-mitigating-the-harm-from-misinformation-and-disinformation

[2] https://www.carecinstitute.org/

[3] https://opinions.kz/en/

[4] Central Asia Regional Economic Cooperation (CAREC) is an initiative of 11 countries and development partners working together to promote development through cooperation, leading to accelerated economic growth and poverty reduction. Member countries are Afghanistan, Azerbaijan, the PRC, Georgia, Kazakhstan, Kyrgyz Republic, Mongolia, Pakistan, Tajikistan, Turkmenistan, and Uzbekistan.

KEY FINDINGS

The WHO included vaccine hesitancy among the ten threats to global health it listed in 2019. WHO experts identified the most common reasons for refusal: the belief that the disease will bypass them, vaccine inaccessibility, and lack of trust[5].

Vaccinations are part of a set of measures to prevent the occurrence and spread of many infectious diseases. Each country has its own vaccination program and its own set of diseases that the population is vaccinated against.

The majority of respondents from the participating countries in this survey expressed a positive opinion about the effectiveness of vaccinations: the highest rate of positive responses came from respondents from Mongolia (71.9%), the lowest, 29.2%, from respondents from Kazakhstan.

However, anti-vaccination campaigns have taken place periodically all over the world during the pandemic, activities on the Internet and in social media were especially widespread and have strongly affected public opinion.

In Kazakhstan, the majority of survey participants (43.7%) believe that vaccinations are not effective. This is the highest rate among all countries. This high rate can be explained by several factors. In the country, 4.5-5 million vaccinations are carried out annually. However, as much as 16,998 people refused to vaccinate their children in 2019. The most common reason is "refusals on personal grounds", the second most common "religious motives", the third — "medical indications"[6]. Prior to this survey, there was a massive dis-information campaign in the country related to the spread of the new coronavirus, and problems related to vaccines and vaccination. In general, during the entire lockdown period, there was a huge amount of fake information related to COVID-19 on social media. The activity of anti-vaxxers (vaccine refusers) also impacted public consciousness.

A quarter of respondents (25.3%) in the seven countries polled found it difficult to assess vaccinations effectiveness, which shows the lack of information about the need for mass vaccination in order to avoid a deterioration of the epidemiological situation. Respondents found it difficult to assess vaccination effectiveness in Georgia (44.5%), Kyrgyz Republic (39%), Kazakhstan (27.1%), Mongolia (21.8%), Pakistan (19.6%), Uzbekistan (12.7%), and Tajikistan (12.5%).

More men than women doubt vaccinations effectiveness. Exceptions are Pakistan and Georgia, where more women than men believe that vaccinations are not effective.
A majority of respondents (83.7%) of survey participants were not vaccinated by any vaccine in the last three years.

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The respondents from all the seven countries where the poll was conducted are generally aware of the development of a COVID-19 vaccine, almost 70% (69.7%) confirmed their awareness; 95.5% of respondents from Georgia, 92.4% from Uzbekistan, 73.3% from Tajikistan, 78.1% from Mongolia, 71.2% from the Kyrgyz Republic, 51.4% from Kazakhstan, 25.7% from Pakistan.

[5]WHO: ten threats to global health in 2019//
https://www.who.int/news-room/spotlight/ten-threats-to-global-health-in-2019
[6]Doctors are concerned about the growing number of refusals to get vaccinated in Kazakhstan
https://news.kaznmu.kz/%D0%B2%D1%80%D0%B0%D1%87%D0%B8-%D0%BE%D0%B1%D0%B5%D1%81%D0%BF%D0%BE%D0%BA%D0%BE%D0%B5%D0%BD%D1%8B-%D1%80%D0%BE%D1%81%D1%82%D0%BE%D0%BC-%D0%BA%D0%BE%D0%BB%D0%B8%D1%87%D0%B5%D1%81%D1%82%D0%B2%D0%B0/

However, information about the vaccine development is not well known to 71.6% of Pakistanis, 38.6% of Kazakhstanis, 21.8% of Kyrgyzstanis, 22.3% of Tajikistanis. Especially respondents aged 61+ among rural residents are not well informed.

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Television is the main source of information from which the respondents receive information about the COVID-19 vaccine. The Internet, social networks are a second source of information, as well as the surrounding community – relatives, friends, acquaintances, co-workers. Medical staff - doctors, physicians, nurses - are sources of information about the epidemiological situation for 11.1% of respondents in all countries.

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The lack of reliable, complete information is reflected in the level of confidence in the vaccines developed in the world. In sum for all seven countries, only 24.5% of respondents believe that all vaccines that have been tested by the responsible authorities are considered safe. "You can't trust vaccines" - this is the opinion of 33.6% of respondents from Pakistan, 32.9% from Kazakhstan, 17.2% from the Kyrgyz Republic, 14.3% from Tajikistan, 12.5% from Georgia, 9.5% from Uzbekistan, 5.1% from Mongolia.

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57.1% of respondents from the seven surveyed countries confirmed their willingness to get vaccinated free of charge. One third (31.5%) refused to do this, and 11.3% were not decided what to do in this matter. 55.5% of respondents from Kazakhstan (+21.6% could not answer), 43.4% from Pakistan, 35% from Georgia (+14.8% could not answer), 31.4% from the Kyrgyz Republic (+19.3% could not answer), 24.7% from Uzbekistan, 18% from Tajikistan and 12.4% from Mongolia refused to get vaccinated for free.

The high level of respondents who answered "Don't know" in a number of countries (Kazakhstan, Kyrgyz Republic, Georgia, Uzbekistan) indicates that a significant number of respondents have not yet made a final decision to be vaccinated against COVID-19 or not.

Mostly, men refuse to be vaccinated. Only in Pakistan more women than men do not plan to be vaccinated against COVID-19.

If the cost of the vaccine is more than $ 5 and if vaccination is optional, 39.6% are ready to get vaccinated in the seven countries (17.5% less than with free vaccination). Also, as in the case of free vaccination, some respondents from Georgia, Kazakhstan, Kyrgyz Republic, Mongolia, and Tajikistan find it difficult to make a choice (15% in all 7 countries). As much as 67.0% of respondents from Pakistan, 62.5% from Kazakhstan, 43.5% from Tajikistan, 42.1% from the Kyrgyz Republic, 42.0% from Uzbekistan, 39.4% from Georgia, 16.3% from Mongolia would refuse paid vaccination.

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The main reason for respondents willing to get or have already got vaccinated against COVID-19, is the desire *to protect the family*.

The institution of the family is an important value for the countries included in the project. According to WVS, *family* is more important than politics, friends, leisure time, work, and religion for 99.9% of respondents from Georgia (WVS-6, N=1,202), 99.5% of respondents from Kazakhstan (WVS-7, N=1,276), 99.9% of respondents from the Kyrgyz Republic (WVS-7, N=1,200), 98.6% of respondents from Pakistan (WVS-7, N=1,995), and 99.8% of respondents from Tajikistan (WVS-7, N=1,200)[7].

Other reasons to get vaccinated: protecting society, protecting yourself, the best way to avoid serious coronavirus disease, safety near other people, doctor's recommendations, understanding the need for community immunity, chronic diseases.

[7] Source: Official website of the World Values Survey// https://www.worldvaluessurvey.org/wvs.jsp

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A major common reason for all respondents refusing free vaccination was concerns about the *possibility of side effects* of the vaccine.

Also, among reasons: lack of confidence in the effective protection of the vaccine against the virus, insufficient testing of vaccines that were hastily developed, and the speed of clinical trials.

Another group of reasons: belief that natural immunity is stronger than vaccination (one third of survey respondents in Pakistan, Kyrgyzstan, Tajikistan), no concern about the possibility of infection with the virus (Tajikistan, Pakistan, Uzbekistan), lack of seriousness of the disease (Pakistan, Tajikistan), religious reasons.

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51.4% out of the total sample of 7,000 respondents believe that mass vaccination of the population is necessary, 28.4% of the survey participants are of the opinion that there is only the need to immunize high-risk groups – medical workers, doctors, teachers, salesmen, fire service employees, etc.

Respondents that are in favor of mass vaccination: from Tajikistan -76.6%, Uzbekistan -68.6%, Mongolia -62.4%, Kyrgyz Republic -50.5%, Georgia -38.8%.

Respondents in favor of vaccination only of risk groups: from Pakistan -48.1%, Kazakhstan -37.1%.

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Interviewees were also asked about nine main measures necessary to counteract new waves of the pandemic if vaccination is not effective.

The most effective measures according to the majority of respondents *are wearing masks while being near other people outside the house and frequent hand disinfection.*

Two measures most often noted by respondents as not effective: *a return to lockdowns with a strict curfew and the closure of preschool and school facilities*. *The requirement to use technologies for location and exposure to coronavirus* was also often noted as not an effective measure.

Measures such as *the requirement to check the body temperature before entering buildings or places of mass gathering of people, large-scale and rapid testing, the requirement to keep at least 1.5 meters distance from each other while at work, in a restaurant or in other similar places, regular treatment of the room with disinfectants* were not evaluated unambiguously by respondents.

**

The majority of respondents (66.3%) are optimistic about the scientific possibilities of combating the spread of COVID-19. 11% find it difficult to assess future scientific developments that will allow humanity not to get infected with the coronavirus. The countries where the least respondents plan to get vaccinated (Kazakhstan, Pakistan, Georgia,) are the most pessimistic and find it difficult to assess future scientific developments to prevent a pandemic.

Overall, 22.7% of respondents in the seven countries do not believe in the potential of science to combat the spread of the coronavirus.

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As for their current health status compared to 2019, 51.2% of respondents in the seven countries noted it as stable, not changed. 16.1% noted a deterioration of their health, 30.7% - began to feel better. A relatively high number of respondents from the Kyrgyz Republic noted a deterioration of health (34.9%), improvement was noted by respondents from Pakistan (64.7%) and Tajikistan (46.4%). The majority of respondents from Kazakhstan, Mongolia, Georgia, and Uzbekistan stated that there were no changes in their health.

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The financial situation in 2020 is estimated by 40.3% of respondents in the entire sample (N=7000) as worse compared to 2019. For 36.7% of respondents nothing has changed, and 20.3% noted an improvement. Their situation became worse for 46.3% of respondents from Georgia, 46.7% from the Kyrgyz Republic, 59.9% from Mongolia, 45.1% from Pakistan. Nothing has changed in financial matters for 49.3% of respondents from Kazakhstan, 38.7% from Pakistan, 40.7% from Uzbekistan.

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Economic prospects for 2021 are viewed as challenging by 45.7% of respondents in the seven countries. In Kazakhstan (33.8%), in the Kyrgyz Republic (45.2%), in Pakistan (55.7%), and in Mongolia (81.3%) believe that economic problems will be more difficult in 2021 than in 2020. In Tajikistan (42.7%) and in Uzbekistan (43.8%) of respondents are confident that economic problems will be relatively easy and surmountable. In Georgia, respondents were divided into two alternative groups of 36% each.

**

The pandemic affected all aspects of respondents' lives in the seven countries. For the entire sample (7,000 respondents) in the period of December 2020 - January 2021: lost their jobs -20.1%, went on unpaid leave - 16.5%, closed their business -16.8%, do not work full-time -18.3%, work remotely -19.5%, received social benefits/allowances -11%, go to work as usual -36.1%, took their children from the kindergarten -19.7%, could not go to work in another country -8.4%, did not get paid wages - 8.5%.

**

68.2% of respondents are afraid that they or their loved ones may get sick and suffer from the new coronavirus. 19.6% are not afraid of this. Respondents from Mongolia (94%), Kyrgyz Republic (84.8%), Uzbekistan (78.8%), and Kazakhstan (65%) are the most worried. Slightly fewer respondents are worried from Tajikistan (58.8%), Pakistan (50.9%), Georgia (45.1%).

**

The pandemic affected the economies of all countries. 72.9% of respondents-participants of the survey are afraid that they or their relatives may suffer from the economic downturn caused by the spread of the virus. Respondents from Mongolia (97.8%), Kyrgyz Republic (84.1%), Uzbekistan (76.4%), Georgia (70.2%), and Pakistan (65.5%) are the most apprehensive. Respondents from Kazakhstan (62.8%) and Tajikistan (53.3%) are slightly less worried about this issue.

In sum, 72.9% of respondents in all seven countries are worried about an economic downturn after the pandemic, and 68.2% are worried about the possibility of a virus infection.

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Survey participants were infected by the new coronavirus to varying degrees: 60.6% of respondents from the Kyrgyz Republic, 42.4% of respondents from Tajikistan, 41.1% from Uzbekistanis, 30.1% from Kazakhstan, 18.1% from Georgia, 6.5% from Pakistan, and 2.3% from Mongolia suffered from COVID-19, including in the asymptomatic form.

Respondents suffered from the new coronavirus in mild, moderate, and severe forms, with the use of oxygen therapy and artificial respiration devices. Some of them were asymptomatic. They were treated for COVID-19 at home on their own, under the supervision of doctors, stayed in the hospital or went to in-patient facilities or special covid centers, clinics, hospitals.

Most of the respondents had family members, relatives, friends, and co-workers who fell ill with COVID-19. This was noted by 63.7% of respondents from the Kyrgyz Republic, 61.4% from Georgia, 53.2% from Tajikistan, 45.8% from Uzbekistan, 34% from Kazakhstan, 11.5% from Pakistan, and 1% from Mongolia.

**

Slightly less than one-third of respondents (29.6%) in the seven participating countries were tested for the new coronavirus or antibodies, 12.9% of them were tested several times. Testing underwent: 47.4% of respondents

from the Kyrgyz Republic, 37.3% from Uzbekistan, 36% from Mongolia, 32.6% from Kazakhstan, 29% from Georgia, 13.2% from Tajikistan, 11.5% from Pakistan.

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Most of the respondents (94.7%) comply with containment measures in the seven countries, of which 58.7% strictly comply with all measures, 36.0% comply only with some measures.

Containment measures fully observe: Respondents from Mongolia (84%), Georgia (81.9%), Uzbekistan (65.5%), Tajikistan (50.6%), Pakistan (48.2%), Kazakhstan (43%), and Kyrgyz Republic (38%).

Women are more likely compared to men to comply with all the security measures in most countries.

**

Respondents show a high desire for information about the pandemic. On average, 87.4% of respondents across the entire sample search and read information about the coronavirus pandemic in media and social media. In all countries, the percentage interested in information about the epidemiological situation is very high, ranging from 70.4% of respondents in Pakistan to 97.0% in Mongolia. These data confirm the importance of timely and accessible information about the situation related to the spread of the new coronavirus.

However, when consuming a lot of information, respondents are confronted with fake news and find it difficult to recognize misinformation. Therefore it is important to develop media literacy and fact-checking skills among the public so that citizens can critically evaluate information coming from different media sources. According to Internews, the media literacy index scores in Kazakhstan, Uzbekistan, and Tajikistan for 2019 were only 3 points out of 7 possible, which indicates a low level of critical perception of information.

**

The majority of respondents from the seven countries believe that the COVID-19 pandemic actually exists (78.3%). However, 19.8% believe that the coronavirus pandemic is fake or overrated. There is not a high percentage of those who found it difficult to answer this question (1.4%). This indicates that the citizens of the seven countries have formed strong opinions on this issue and are strongly polarized.
Covid-dissidents who believe that the pandemic is a myth: 46.8% in Pakistan, 20.2% in Tajikistan, 17.6% in the Kyrgyz Republic, 17% in Kazakhstan, 15% in Mongolia, 11.8% in Uzbekistan, 10.2% in Georgia.

**

72% of respondents in the seven countries trust the recommendations of medical staff on the prevention and treatment of COVID-19. Respondents from Uzbekistan (83.6%), Mongolia (82.6%), Georgia (81.4%), Tajikistan (75.1%), and Kyrgyz Republic (72.7%) have a high level of confidence. Respondents from Pakistan (40.9%) and Kazakhstan (67.7%) have a slightly lower level of trust in medical staff.

RECOMMENDATIONS

Returning to a healthy, safe life without stifling restrictions has become a top priority for societies as well as governments. The yearlong quarantine measures have affected the global economy, severely disrupted the social and economic well-being of citizens around the world, and caused multiple social and psychological problems.

One of the critical instruments on the road to normalcy is universal COVID-19 vaccination aimed at building herd immunity. **According to this survey, main barriers to vaccination include a lack of confidence in vaccine efficacy, a lack of sufficient and proper information, and the fear of side effects**. Our recommendations are primarily aimed at removing these barriers.

1. Engage Medical Professionals for COVID-19 Vaccine Advocacy Campaigns

The survey indicates a big disconnect between people's receptiveness to COVID-19 related information, and the availability of such information through trusted sources. While a significant number of population trusts information received through medical professionals, they are not getting such information sufficiently often. A possible reason can be that medical professional are overwhelmed at the front lines of the health crisis. However, their participation in forming the public opinion is of utter importance. Mass media campaigns in combination with information sharing at the ground level with the participation of medical professionals, could bridge this gap. Some high-level international virologists or epidemiologist could also be engaged.

The majority of respondents from the seven participating countries ***expressed their trust in COVID- 19 preventative measures and treatment recommendations by medical professionals.*** Within the entire sample, 72% of respondents trusted doctors and nurses; the lowest levels of confidence were registered in Pakistan (40.9%) and Kazakhstan (67.7%). However, fewer than one-fifth of respondents in most of the seven countries under study mentioned medical workers as main source of information about vaccines and vaccination. 20.7% of respondents from Tajikistan, 18.3% from Pakistan, 13.5% from Kyrgyzstan, 11.1% from Kazakhstan, 8.2% from Uzbekistan, 6.6% from Georgia, and 6.4% from Mongolia mentioned medical workers as an important information source.

Vaccination campaigns encompass challenges going way beyond medical issues and involve a whole set of legal, administrative, commercial, logistics and more issues. Most high-level decisions have to be taken by politicians and civil servants taking into account not only health considerations, but a whole range of circumstances. However, when it comes to convince people about pro and contra of vaccination, doctors and nurses should be involved since they are the most trusted opinion leaders for medical questions. The involvement should not be limited to high-level media appearance, but should be ground-level information campaigns, desirably supported by medical associations of doctors or nurses or similar, if available.

Therefore, for more effective vaccination promotion, ***we recommend first of all to ensure broad involvement of medical workers, interns of medical universities and colleges in vaccination promotion in all the countries under study.***

It is also ***necessary to pay attention to the level of awareness among medical workers themselves, and the level of their confidence in vaccination.*** Medical workers in a number of countries are skeptical about the vaccine and vaccination. We recommend increasing the level of awareness of the COVID-19 vaccination among medical workers by disseminating data and latest reports in reputed research journals.

Medical workers should address people's concerns and help them to build up trust in certified and registered vaccines. Mistrust in the process of vaccine selection and doubts about the quality of one or another vaccine are serious barriers to global vaccination.

Other barriers include erroneous and incomplete instructions, unclear information that can be interpreted ambivalently, inconsistent promotion, hesitancy, etc. Therefore, ***it is recommended to elaborate a single***

vaccination promotion strategy in each country depending on the situation and sociocultural characteristics. Information contained in leaflets, brochures, websites, social networks, TV and radio should be presented in a clear, easily to be understood manner. Clear guidelines need to be developed for healthcare workers and medical personnel involved in promoting vaccination.

2. Target interventions specifically to specific social groups

The specific features of each target group – such as age, gender, place of residence (city/village), educational background etc. - should be taken into account during the outreach activities.

Special attention should be paid to outreach activities for rural residents, since rural area citizens have indicated low awareness. Rural people (aged 18 and older) in all seven participating countries make up about half of the population (47.9%). It is necessary to take this factor into consideration when designing vaccination campaigns (rural population: Tajikistan – 73.8%, Kyrgyz Republic – 64.6%, Uzbekistan – 47.6%, Georgia – 42.5%, Kazakhstan – 40.3%, Pakistan – 34.8%, Mongolia – 31.5%).

It is essential to form positive attitudes towards vaccination among women, since they often are the ones to make decisions about the immunization of their children and family. According to the study, the main reason for participation in vaccination is ***family protection*** in all countries under study, which should be made an integral idea in vaccination advocacy campaigns.

3. Address Main Concerns Regarding Vaccination but also Counteract the Underestimation of the Disease

Possible side effects are the main and prevalent reason for rejecting vaccination in all surveyed countries. ***Therefore, it is essential that vaccine recipients share information about their physical state and experience in social networks***. It would be useful to ask vaccine recipients about their willingness to share this information for use in media campaigns. Experience of recipients in other countries where vaccination is already more advanced can also be used in campaigns.

At each stage of the outreach activity, it is necessary and important to emphasize the main goal of the vaccination - to return to the previous rhythm of life, to form herd immunity, and to avoid disease complications.

Experiences of recovered COVID-19 patients should also be shared to fight misperceptions or denial. A substantial number of people would not care to get vaccinated simply because they believe the pandemic is not very serious or fake altogether. Let people who fell seriously sick with COVID-19 share publicly their experience. To counteract the belief that only elderly people are seriously affected let specifically also younger people share their experiences.

According to the survey, Mongolia is a country with **high level of vaccine awareness and confidence in vaccination.** Therefore, other countries are encouraged to study Mongolia's experience in countering COVID-19.

Among the seven countries under study, Kazakhstan is the only country that is currently developing and testing several own-developed COVID-19 vaccines. At the same time, the level of confidence in vaccination and awareness of the vaccine is very low. In addition to raising awareness about COVID-19 vaccinations, it is necessary to ensure media coverage of Kazakhstan's vaccine development and testing, and to inform the population about the persons and groups involved in the vaccine development.

4. Take the epidemiological culture into account

Attention also should be paid to the formation of the ***"epidemiological culture"*** and the ***"epidemiological behavior"*** among the population – compliance with sanitary and hygienic standards, disinfection, wearing

masks during viral infections spikes, and avoiding crowded places. The countries of this survey do not have sufficient behavioral experience under pandemic conditions and this fact has affected the perception of the situation. For example, wearing masks has long been a habit in such situations in Japan and South Korea, and the population of these countries has a culture of wearing masks. There is no such culture in the seven countries of this study, and it was challenging to develop acceptance of wearing medical masks within the shortest possible time.

5. Use a broad variety of channels of information, increase media literacy

Information platforms and channels should be selected among the most popular information sources in each country. It is necessary to ***diversify channels*** used for reliable information dissemination through stands, leaflets, handouts in state and non-state medical institutions, shopping centers, markets, and so on. It is also necessary to involve the civil sector, civil society organizations (CSOs), NGOs and volunteers.

In order to form a positive information background, it is recommended to create and demonstrate short videos and texts, documentaries about the history of vaccinations, about their positive impacts on the quality and duration of life. The public also needs more information about medical scientists – the creators of vaccines combatting general and dangerous infections. It is necessary to ***visually present*** the mortality rate due to dangerous and pediatric infections in the "pre-vaccination" and "vaccine" periods, based on evidence from around the world.

It is also important to ***work with clergy and religious leaders***. Five of the seven countries participating in the project are countries with a predominantly Muslim population. The recommendations and instructions of religious leaders are important for significant segments of the population. The survey revealed that a certain part of respondents refused to be vaccinated for **religious reasons**. It is necessary to inform the clergy of the need for the COVID-19 vaccination and to elaborate a joint strategy with religious leaders, associations, and organizations.

Disinformation has increased dramatically in recent years, giving rise to ***infodemia***. To counteract the influence of misinformation, it is important to increase media literacy among the population, clarify the basics of fact-checking to separate information from disinformation and to segregate news from fake news, so that citizens can critically evaluate information received from various media. According to Internews, the media literacy index scored 3 points out of 7 possible for Kazakhstan, Uzbekistan, and Tajikistan (2019)[8]. This indicates a rather low level of critical perception of information.

[8] How attitudes towards media literacy have changed in Central Asia with the advent of the pandemic //https://newreporter.org/2020/05/22/kak-izmenilos-otnoshenie-k-mediagramotnosti-v-centralnoy-azii-s-prixodom-pandemii/?fbclid=IwAR334I2EfYp-TAeeNIEFoxvmS88tC1C-8kV8tQFAVhah7xaJp0UAzKgALMA

TO JAB OR NOT TO JAB, AND DETERMINING FACTORS[9]

LOGIT REGRESSION SUGGESTS THAT 8 VARIABLES ARE SIGNIFICANT PREDICTORS FOR VACCINATION WILLINGNESS

As an initial step to find out which variables influence respondents' decision to jab or not to jab a logit regression[10] was conducted. The respondents' answers to the question "If in your country coronavirus vaccination will be for FREE and your country's scientists recognize the vaccine as safe, would you and your family members get vaccinated?" "definitely" or "rather yes" were combined to the answer "yes", and the answers "rather not" and "definitely not" to the answer "no". For this binary dependent variable, the explanatory power of a number of independent variables was investigated. Independent variables include those related to experiences and beliefs as well as those related to demographics[11]. Table A shows the results of the regression. The variables in red italics are significant at the 5% error level.

Table A: Logistic regression - Dependent variable: ready to get vaccinated, yes/no*[12]

q20bin	Getting vaccinated yes/no	Odds Ratio	Std. Err.	z	P>z	[95% Conf.	Interval]
q1	What is your current health status compared to 2019?	1.031	0.079	0.40	0.687	0.888	1.198
q2	How would you describe the financial situation in your household compared to 2019?	0.941	0.064	-0.89	0.371	0.823	1.075
q3	What do you think, will the economic challenges for your country be more difficult or easier to overcome in 2021 compared to 2020?	0.915	0.048	-1.67	0.094	0.825	1.015
q4	Please, tell us for each of the following economic experiences whether or not this happened to you during the coronavirus pandemic?	0.928	0.092	-0.76	0.447	0.764	1.126
q5	*How afraid are you that you or your loved ones get sick and suffer severely from the coronavirus?*	*0.874*	*0.038*	*-3.09*	*0.002*	*0.803*	*0.952*
q6	How scared are you that you or your loved ones will suffer from the economic recession following the coronavirus?	1.008	0.050	0.17	0.864	0.916	1.110
q7	*The social media are full of stories telling that the Corona pandemic is a hoax and that all the lockdown measures are a hysteric overreaction. Do you believe the corona pandemic is being made up?*	*1.286*	*0.139*	*2.33*	*0.020*	*1.041*	*1.590*
q8	Have you yourself been infected with COVID-19?	1.060	0.053	1.16	0.245	0.961	1.170
q11	Have you been tested for COVID-19 or antibodies?	1.004	0.064	0.06	0.950	0.885	1.138
q12	Did your family members, relatives, friends, colleagues had COVID-19 ?	0.875	0.094	-1.25	0.213	0.708	1.080
q13	Please tell me how do you follow safety measures (wearing masks, using sanitizers, avoiding crowded places) to protect yourself from infection?	0.956	0.080	-0.54	0.593	0.813	1.126
q14	*How often do you search and read information on the COVID-19 pandemic in the media, social networks?*	*0.843*	*0.034*	*-4.20*	*0.000*	*0.778*	*0.913*
q17	Please tell me, over the past 3 years, have you received any vaccinations?	0.906	0.117	-0.76	0.446	0.704	1.167
q18	*Currently, vaccines against coronavirus are being developed in the world. Have you ever heard of a coronavirus vaccine before today?*	*0.689*	*0.076*	*-3.36*	*0.001*	*0.554*	*0.856*
q23	*Do you think it is necessary to vaccinate the entire population or only high-risk groups - medical workers, doctors, teachers, salespeople, fire and police officers, etc.?*	*0.184*	*0.016*	*-19.08*	*0.000*	*0.155*	*0.219*
q24	*Do you think the vaccines developed in the world are safe?*	*0.505*	*0.026*	*-13.52*	*0.000*	*0.457*	*0.558*
q27	*Do you believe scientific developments will help humanity build immunity against COVID-19 in the future?*	*0.599*	*0.030*	*-10.09*	*0.000*	*0.543*	*0.662*
d1	Gender	0.850	0.081	-1.71	0.088	0.706	1.024
d2	*Age*	*1.196*	*0.060*	*3.56*	*0.000*	*1.084*	*1.320*
d6	Level of education	0.967	0.022	-1.47	0.141	0.924	1.011
d7	Being currently employed	0.964	0.033	-1.06	0.290	0.902	1.031
d9	Living standard of family	1.038	0.052	0.75	0.455	0.941	1.145
_cons		2046	1189	13.12	*0.000*	655	6390

* Number of observations= 4100; Log likelihood = -1545.8; LR chi^2(22) = 1726.6 Prob>chi^2= 0; Pseudo R^2= 0.36

[9] In this analysis respondents' answer options "Don't know" and "No answer" were not taken into account.

[10] Logit regressions investigate the impact of independent variables on a binary dependent variable, in this case yes/no readiness for COVID-19 vaccination.

[11] The questions asked can be seen in the questionnaire in the annex.

[12] The line below Table A indicates that there were 3,899 valid observations for the whole list of variables in the table. Some variables that were also part of the poll were skipped from the regression because there was a relative high number of invalid answers to the questions. They would have reduced the number of valid observations in the regression too much. The Pseudo R^2, which can also be seen in the note, is not great, there are also factors involved in determining the outcome. However, 36% of variance can be explained by the variables included in the regression. The so called "odds ratio" is the ratio of the odds of event A in the presence of event B and the odds of A in the absence of B, in this case the odds of getting

Variables that turned out to be significant reflect fearing or not fearing the COVID-19 disease, believing or not believing that the COVID-19 pandemic is fake or overrated, strong or little interest in getting information. The block of variables related to the safety of vaccines, and the belief or disbelief that science will help to overcome the pandemic also emerged as significant variables. Among demographic variables, age is significant.

Table B shows the significance level of the independent variables by country. Significance below the 5% error margin is again marked by red italics. Significance levels vary among countries for most variables. However, in almost all countries people who believe that vaccines are safe, that science will help to overcome the pandemic, and that all population should be vaccinated and not just high-risk groups, are much more likely to get vaccinated than those who do not hold such beliefs.

Table B: Logistic regression - Ready to get vaccinated, yes/no; significance levels (P<z) by country*

q20bin	Getting vaccinated yes/no	7 countries	Georgia	Kazakhstan	Kyrgyz R.	Mongolia	Pakistan	Tajikistan	Uzbekistan
q1	What is your current health status compared to 2019?	**0.687**	0.311	0.053	0.803	0.669	0.123	0.250	0.531
q2	How would you describe the financial situation in your household compared to 2019?	**0.371**	0.813	0.632	0.259	0.311	0.326	0.823	0.140
q3	What do you think, will the economic challenges for your country be more difficult or easier to overcome in 2021 compared to 2020?	**0.094**	0.225	*0.011*	0.056	0.853	0.752	*0.012*	*0.028*
q4	Please, tell us for each of the following economic experiences whether or not this happened to you during the coronavirus pandemic?	**0.447**	0.024	0.753	0.057	*0.012*	0.357	*0.076*	0.097
q5	*How afraid are you that you or your loved ones get sick and suffer severely from the coronavirus?*	***0.002***	0.714	0.088	0.783	0.947	*0.000*	0.130	*0.000*
q6	How scared are you that you or your loved ones will suffer from the economic recession following the coronavirus?	**0.864**	0.698	*0.036*	0.464	*0.012*	0.202	0.514	0.263
q7	*The social media are full of stories telling that the Corona pandemic is a hoax and that all the lockdown measures are a hysteric overreaction. Do you believe the corona pandemic is being made up?*	***0.020***	0.127	0.180	0.977	*0.020*	*0.034*	0.338	*0.000*
q8	Have you yourself been infected with COVID-19?	**0.245**	0.675	*0.015*	0.742	*0.005*	0.982	0.177	0.094
q11	Have you been tested for COVID-19 or antibodies?	**0.950**	0.418	*0.048*	0.256	0.264	0.532	0.442	0.054
q12	Did your family members, relatives, friends, colleagues had COVID-19 ?	**0.213**	0.202	*0.021*	0.094		0.079	0.511	0.467
q13	Please tell me how do you follow safety measures (wearing masks, using sanitizers, avoiding crowded places) to protect yourself from infection?	**0.593**	0.299	0.580	0.194	0.148	0.233	*0.053*	*0.032*
q14	*How often do you search and read information on the COVID-19 pandemic in the media, social networks?*	***0.000***	*0.005*	0.093	0.217	0.348	0.138	*0.001*	*0.009*
q17	Please tell me, over the past 3 years, have you received any vaccinations?	**0.446**	0.203	*0.017*	0.462	0.887	0.681	0.844	0.447
q18	*Currently, vaccines against coronavirus are being developed in the world. Have you ever heard of a coronavirus vaccine before today?*	***0.001***	0.817	0.256	0.227	0.478	*0.000*	0.146	0.898
q23	*Do you think it is necessary to vaccinate the entire population or only high-risk groups - medical workers, doctors, teachers, salespeople, fire and police officers, etc.?*	***0.000***	*0.000*	*0.000*	*0.000*	*0.000*	*0.000*	*0.000*	*0.000*
q24	*Do you think the vaccines developed in the world are safe?*	***0.000***	*0.000*	*0.000*	*0.000*	*0.000*	*0.000*	*0.000*	*0.000*
q27	*Do you believe scientific developments will help humanity build immunity against COVID-19 in the future?*	***0.000***	*0.019*	0.061	0.186	*0.008*	*0.000*	*0.016*	*0.001*
d1	Gender	**0.088**	0.880	0.404	0.427	0.967	*0.007*	0.876	0.370
d2	*Age*	***0.000***	*0.004*	*0.050*	0.303	0.168	*0.038*	0.035	0.544
d6	Level of education	**0.141**	0.824	0.228	0.090	0.404	0.414	0.762	*0.000*
d7	Being currently employed	**0.290**	0.579	0.083	0.359	0.596	0.391	0.553	0.212
d9	Living standard of family	**0.455**	0.922	0.161	0.744	0.685	0.736	0.416	0.788
_cons		***0.000***	*0.000*	*0.000*	*0.000*	0.777	*0.000*	*0.000*	*0.000*

* The lower the figures in the table the higher the significance of the variable

In the following chapter, the report presents the 8 variables singled out in Table A as significant by histograms[13]. This is meant to provide a more differentiated picture of the various response options and of country differences. Some variables that have not made it to significance at the 5% error level because of their non-linear structure or other reasons, but are interesting and provide some insight, are also added.

vaccinated depending on the values of the independent variables. For independent variables that got higher code numbers here when they are rather vaccination-negative, an odds-ratio below 1 means a higher probability getting vaccinated. For opposite coding an odds-ratio higher than 1 suggests a higher probability for being ready to get vaccinated.

[13] Histograms are charts that show frequencies/percentages of respondents agreeing to a specific answer in a specific question.

READINESS TO GET VACCINATED BY DEMOGRAPHY: AGE, EDUCATION, AND THE LIVING STANDARD MATTER

Age

About 66% of 18–29-year-olds are ready to be vaccinated, 62% of 30–45-year-olds, 65% of 46–60-year-olds, and 67% of 61+-year-olds (Figure 1)[14]. Middle-agers from 30 to 60 years old are least likely to get vaccinated**. Interestingly, young persons at the age of 18-29 years are at 66% almost as likely to go for vaccination as the 61+ ones.**

Figure 1: Older and younger more likely to get vaccinated than middle-agers

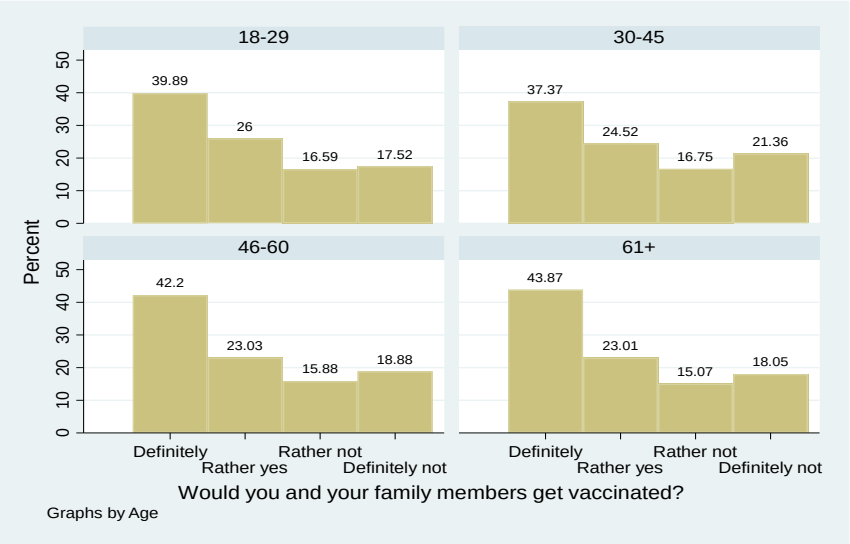
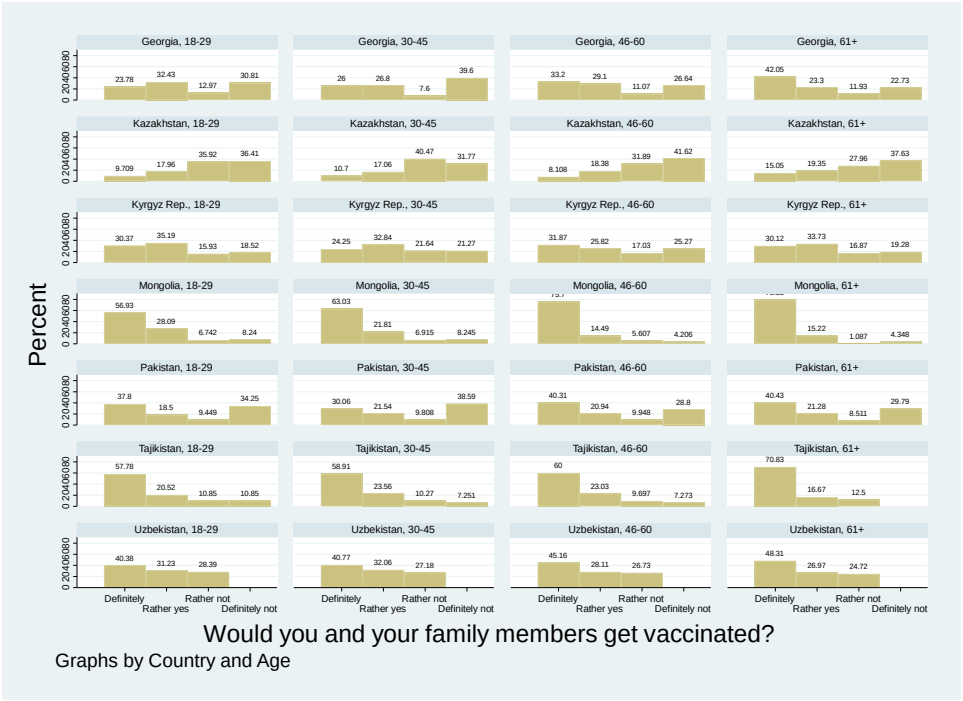


Figure 2: Older more likely to get vaccinated in almost all countries



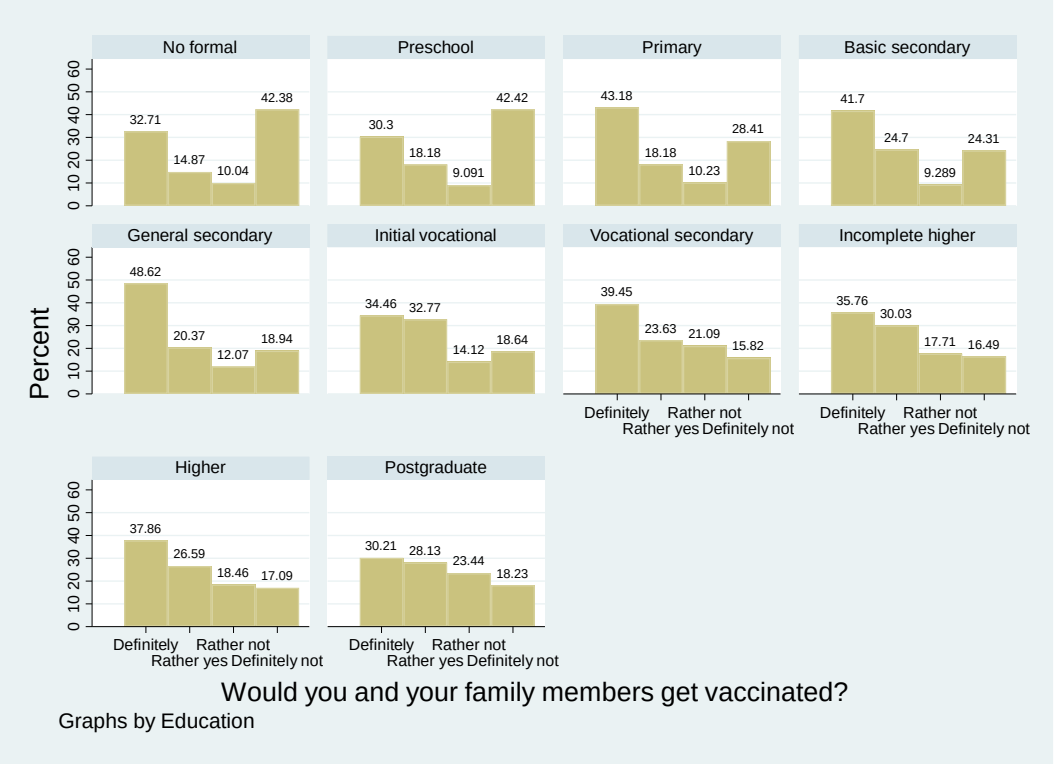
[14] As indicated by their answers to the question "If in your country coronavirus vaccination will be for free and your country's scientists recognize the vaccine as safe, would you and your family members get vaccinated?"

The age variable has the highest significance in Georgia (Table A). There is an especially clear trend for the "definitely yes" category in Georgia. The percentage of people willing to be definitely vaccinated increases from 24% of the 18–29-year-old over 26% of the 30–45-year-old and 33% of the 46–60-year-old to 42% of 61+-year-old. However, even for countries where the age variable is less significant, there is evidence that age matters. There is a higher willingness to get vaccinated in the older population in most countries in the category "Definitely" (Figure 2).

Education

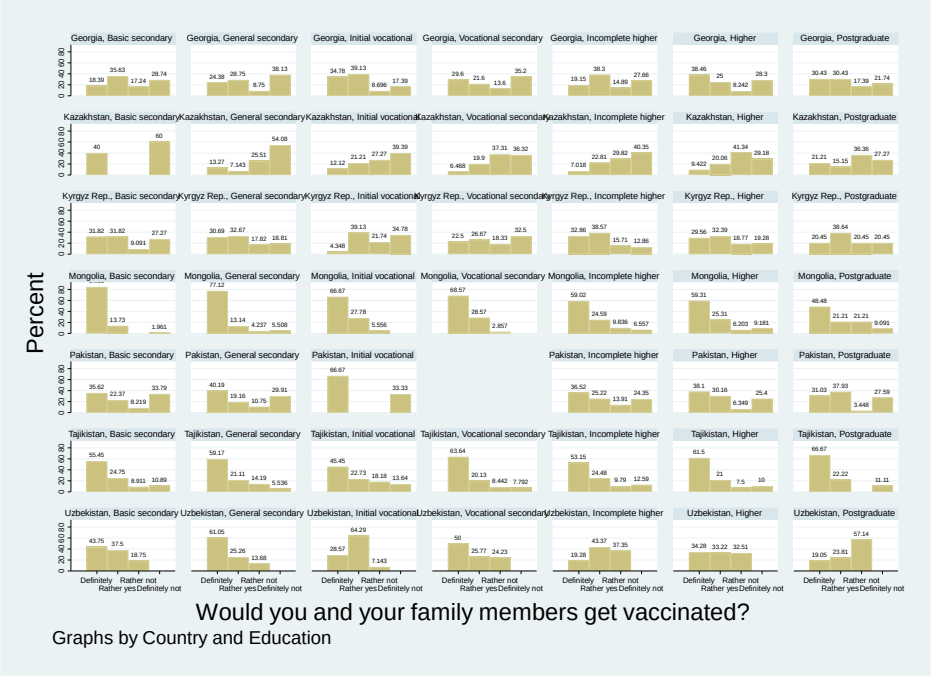
To have no formal or only preschool education is an indicator of less preparedness to get vaccinated against COVID-19. Over 42% say that they definitely would not get vaccinated (Figure 3). However, if there is at least primary education, the trend becomes less pronounced, although the frequency of the "Definitely not" answers is still relatively high in the "Primary" and "Basic secondary" categories. The unclear trend in the higher education categories is the reason that education is not significant in the logit regression[15]. That beyond primary education the trend is not very pronounced can be also seen in the country break-down (Figure 4)[16]. In Mongolia the trend is even reverse, the higher the education of the respondents the fewer respondents answered "Definitely yes".

Figure 3: Only no formal or preschool education indicates less preparedness to get vaccinated



[15] At 14% error probability education is not very far from being significant though.
[16] There were not sufficiently many valid answers to allow to display reasonable percentages for "No formal" and "Primary" education responses by country.

Figure 4: Beyond primary education* the trend is not so clear, for Mongolia even declining



** Formal, preschool and primary education omitted due to too few data on country level*

Living standard

Living standard has also not qualified as significant in the logit regression. However, the histogram provides quite strong evidence that abundance of financial means indicates a relatively high readiness for vaccination, whereas poverty is a counter-indicator (Figure 5). An average of 66% of respondents would get vaccinated in the "Abundance", "Satisfactory", "Manageable" categories compared with only 56% in the "Cannot much afford", and "Poverty" categories. Poverty is a clear negative for vaccination in Kazakhstan, and Pakistan, although not so much in Tajikistan and Uzbekistan (Figure 6).

Figure 5: Affluency indicates higher readiness for vaccination, poverty is a counter-indicator

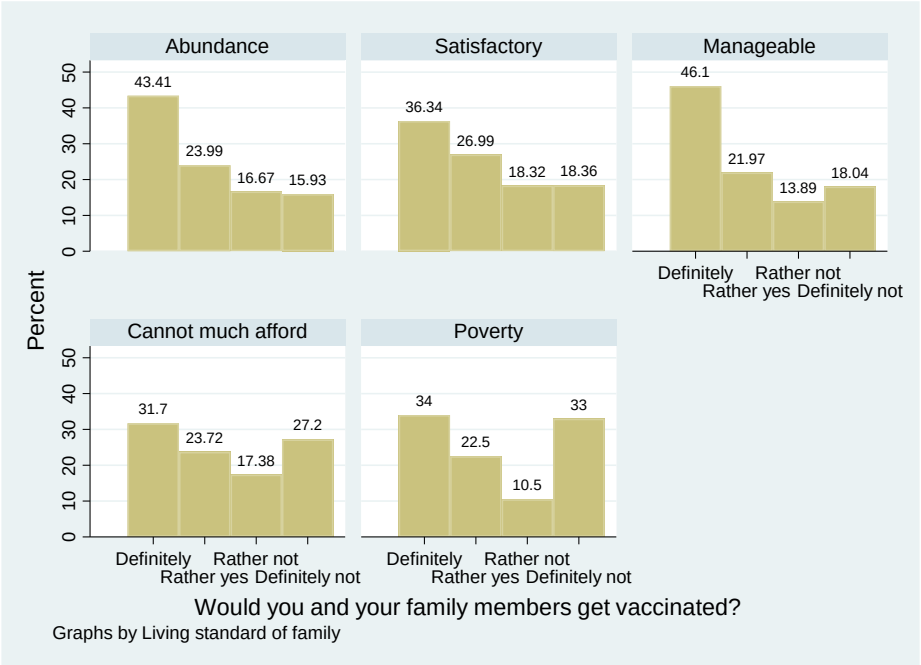
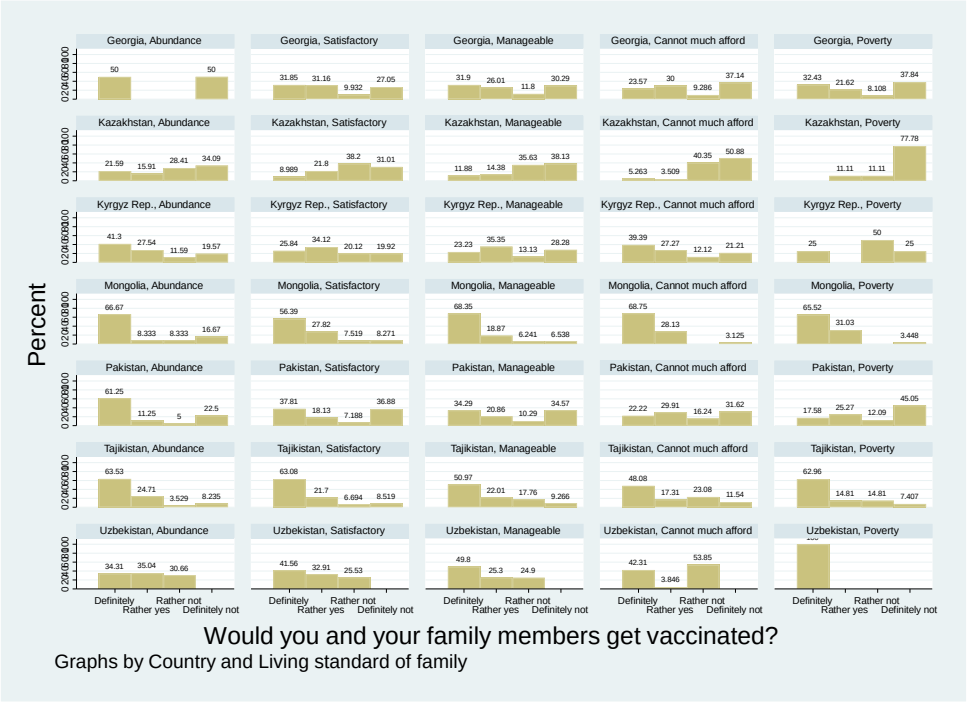


Figure 6: Affluency indicates higher readiness for vaccination, poverty is a counter-indicator



EXPERIENCE WITH COVID-19: THOSE WHO HAD SEVERE FORMS WOULD GO FOR VACCINATION

To the question whether having had COVID-19 or not matters for the decision to be vaccinated there is no linear answer. In the logistic regression the variable is not significant. Figure 7 reveals some bipolarity: both, having been sick in the past and being not sick currently go along with a relatively high willingness to get vaccinated, whereas being sick currently or sick without symptoms result in a lower outturn. However, the variable is significant for Kazakhstan in the logit regression, and in Kazakhstan those who were sick or still are sick would be slightly more inclined to go for vaccination than those who never had experienced the disease. And this is also the case for most other countries (Figure 8).

Figure 7: Those who were already sick and those clearly not sick would go for vaccination

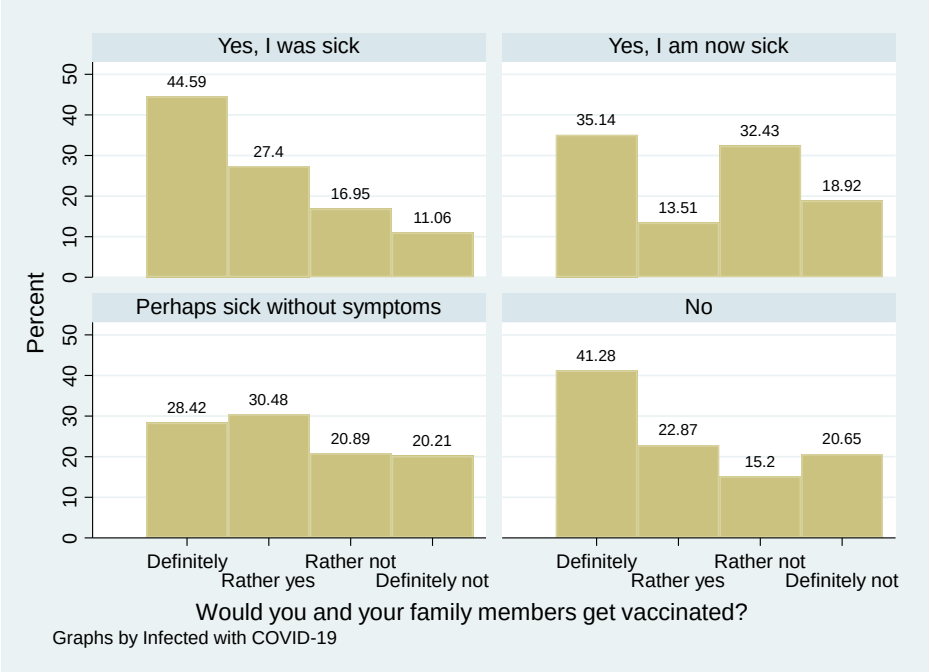


Figure 8: Kazakhstan - those who were sick are more likely to go for vaccination

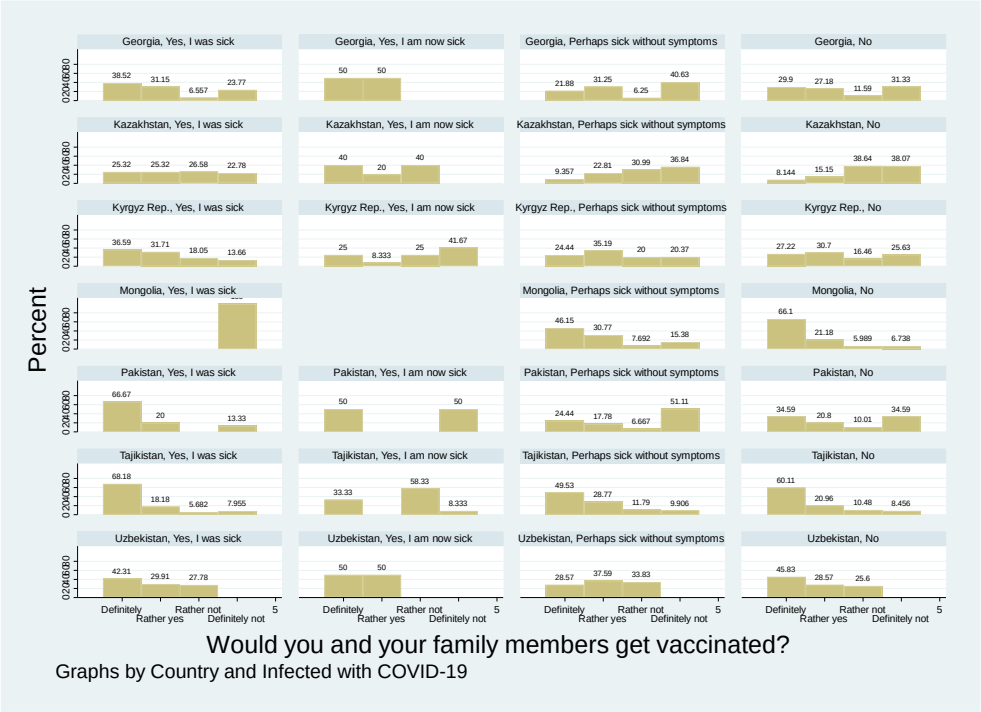
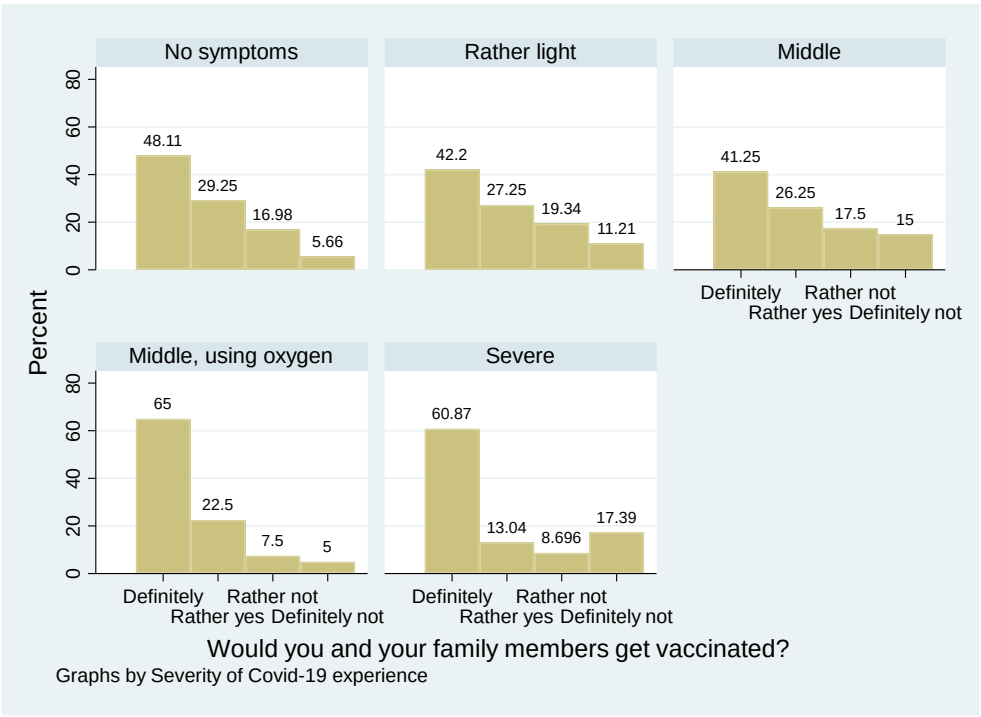


Figure 9: Those who had the sickness in severe forms are much more likely to desire vaccination



Asking for the severity of the disease experience gives an even stronger indication: those who had the sickness in severe forms are much more likely to desire vaccination than people who had relatively light forms (Figure 9)[17].

[17] The variable was omitted from the logistic regression because there are only 967 observations for all 7 countries. Including this variable would have resulted in a strong reduction in the number of observations for the regression.

WHO IS NOT AFRAID OF FALLING SICK WITH COVID-19 OR BELIEVES THE PANDEMIC IS FAKE WOULD NOT GET VACCINATED

As one would expect, there is a strong relation between the fear of COVID-19 and the readiness to be vaccinated. Roughly 74% of those who responded that they are "Very afraid" of COVID-19 answered also they would "Definitely" or "Rather" go for vaccination. This compares with only 45% of respondents that are "Not at all afraid" (Figure 10). The relation is clearly visible in all countries (Figure 11).

Figure 10: Strong relation between fear of COVID-19 and the readiness to be vaccinated

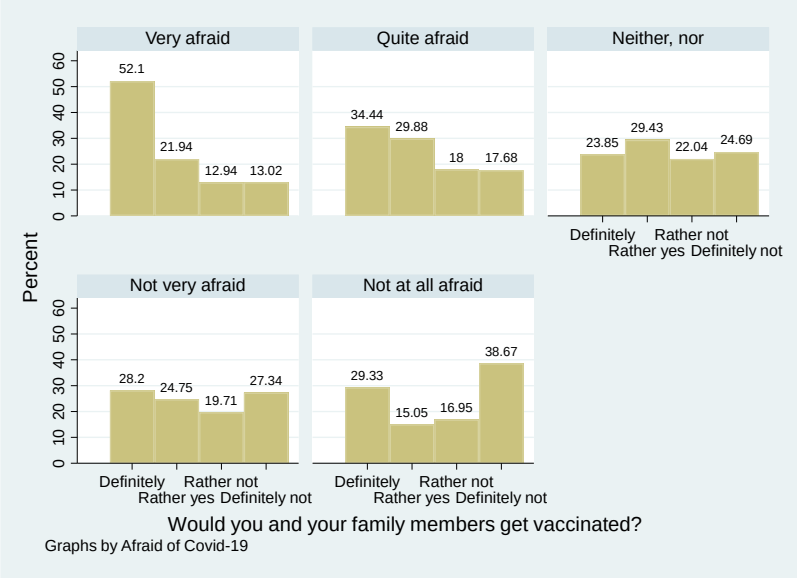
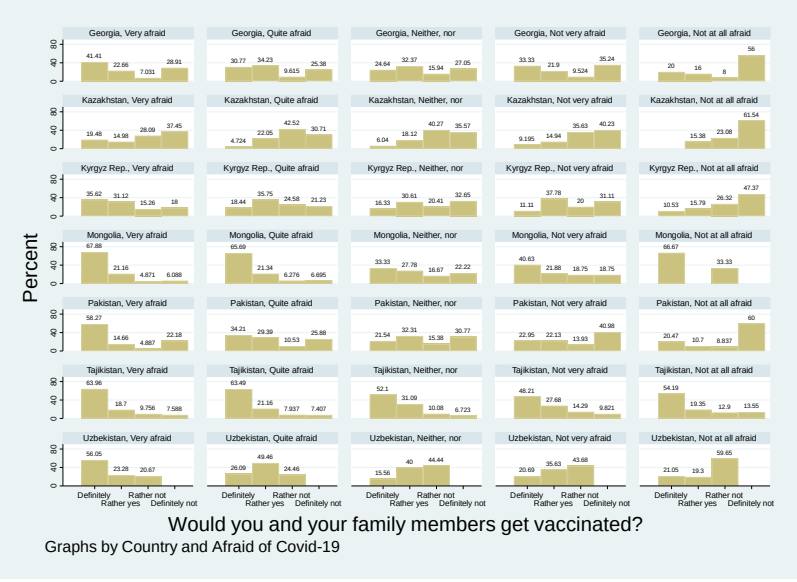


Figure 11: Many would "Definitely not" go for vaccination in the "Not at all afraid" category



Frequency of looking for information also reveals the degree of concern with COVID-19. Those who look very often for information want get vaccinated, those who never look much less so (Figure 12). Almost 43% of respondents said that they look very often for information, 26% sometimes, 32% rarely or never.

Figure 12: Who looks often for information wants to get vaccinated, others not so much

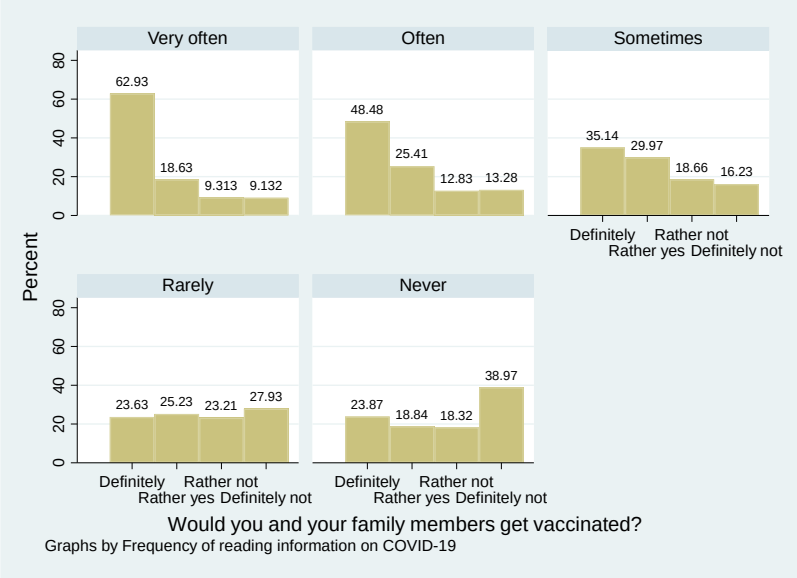
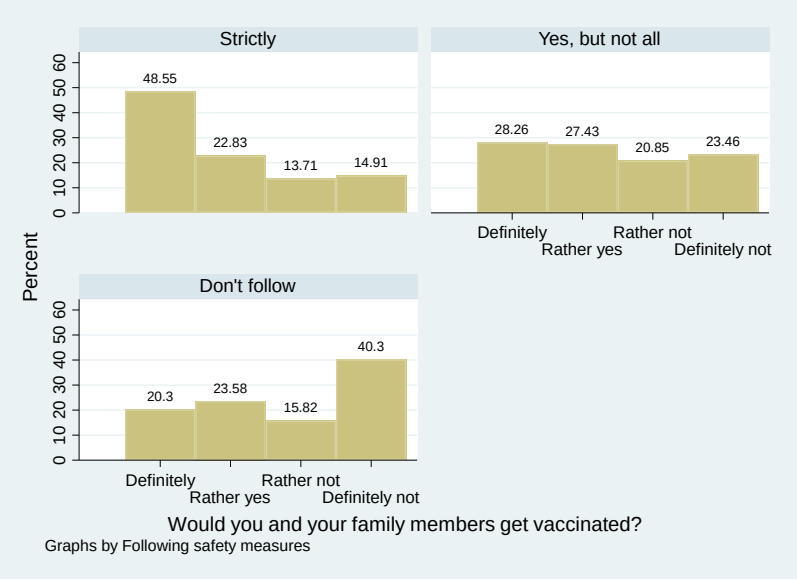


Figure 13: Who follows safety measures is inclined to get vaccinated, who doesn't much less so



The stance towards safety measures is another strong indicator for vaccination readiness. There is a clear polarization between the "Definitely yes" and the "Definitely not" categories. Who follows safety measures is also inclined to get vaccinated, who doesn't follow much less so (Figure 13). Roughly 59% of respondents said they follow safety measures strictly, 36% said in part, 5% confessed that they don't follow them.

The belief that the pandemic is fake and made up by interested groups or governments is highly vaccination-negative, of course. More than 49% of those who think the pandemic is made up would "Definitely" or "Rather not" get vaccinated compared with only 31% of those who are convinced that the pandemic is real (Figure 14). In Georgia as many as 63% of those not believing in the existence of the pandemic would not participate in COVID-19 vaccinations, in Kazakhstan even 86% (Figure 15).

As much as 20% of the polled in the 7 countries believe that the pandemic is fake. In Pakistan, the share is as high as 47%, in Tajikistan 20%. Then the Kyrgyz Republic with 17.6%, Kazakhstan with 17.0% and Uzbekistan with 12% follow. Least believers that the pandemic is fake are found in Georgia, but even there 10% believe so.

Figure 14: The belief that the pandemic is fake is highly vaccination-negative

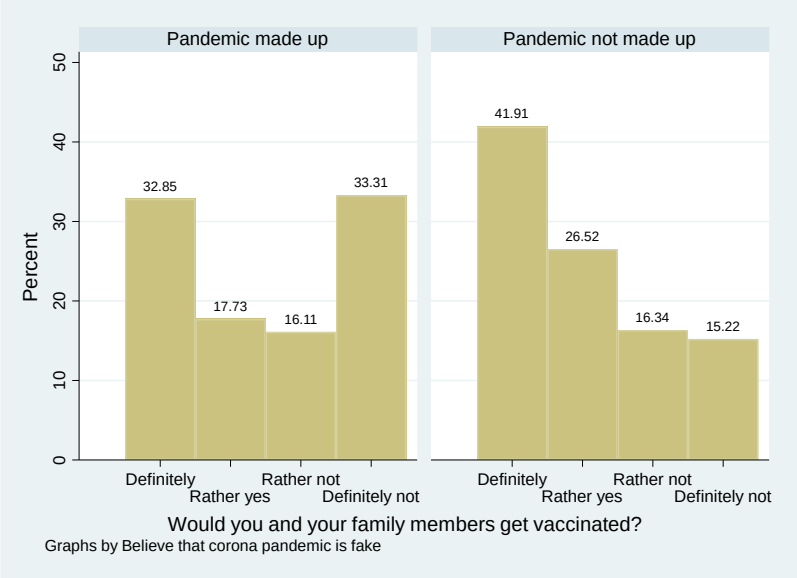
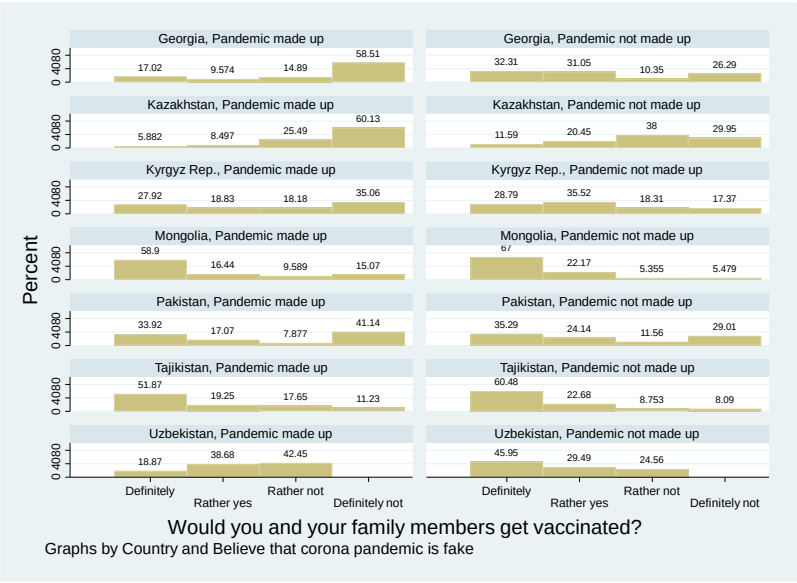


Figure 15: In Georgia 63% of those saying COVID-19 is fake wouldn't get vaccinated, in Kazakhstan 86%



ATTITUDES TOWARDS VACCINATION IN GENERAL

General disbelief in the effectiveness of vaccines is a very strong factor discouraging people to get vaccinated against COVID-19. As much as 63% of those who say vaccines are "Completely ineffective" would "Definitely not" participate in COVID-19 vaccinations compared with 74% of those who say vaccines are generally "Very effective" would "Definitely" get vaccinated (Figure 16). Vaccine-skepticism goes along with a strong unwillingness to participate in COVID-19 vaccinations in all countries (Figure 17). In the 7 countries polled an average of 23% of respondents believe that vaccines are generally little or completely ineffective, in Kazakhstan as many as 44%, in Pakistan as many as 30%.

Figure 16: The belief that vaccines are ineffective is a strong predictor of COVID-19 vaccination refusal

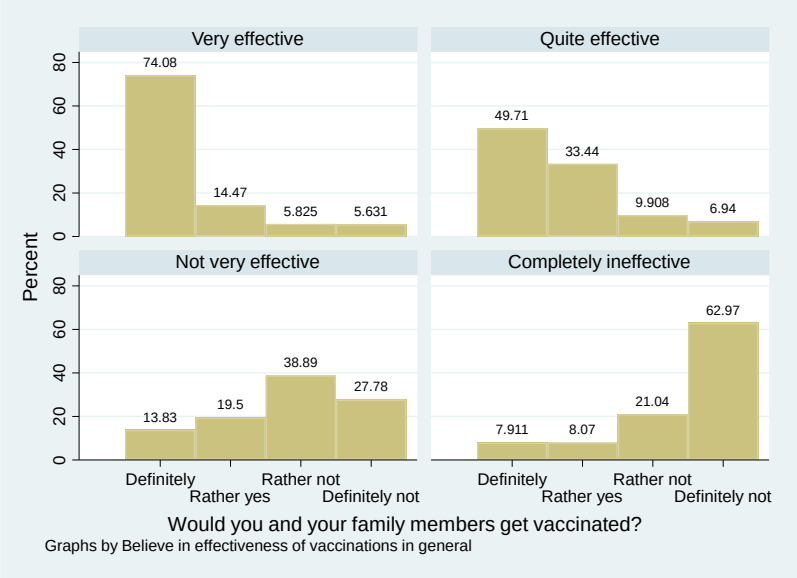
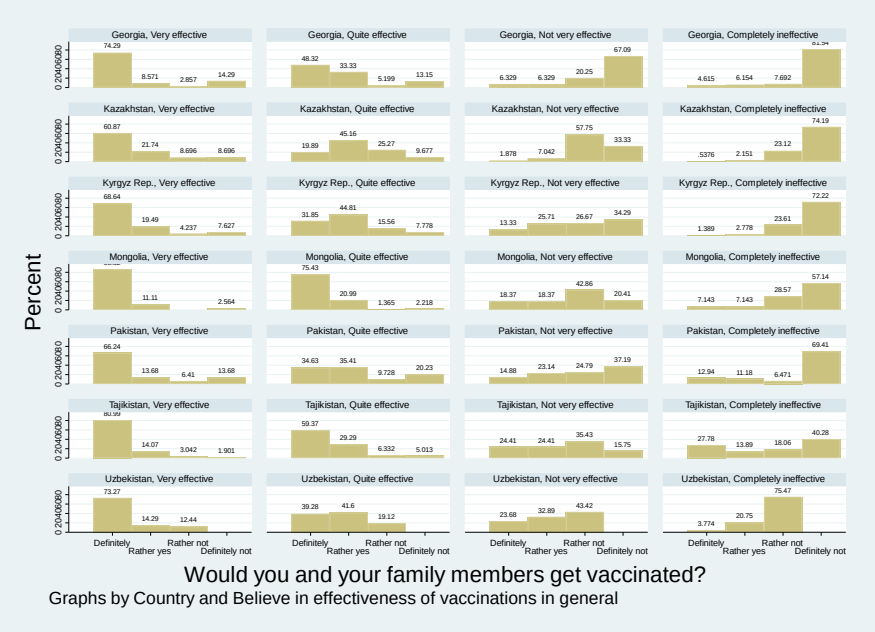


Figure 17: Vaccine-skepticism goes in all countries along with high COVID-19 vaccination refusal



Trust or distrust in science is another big factor influencing peoples' stance vis-à-vis COVID-19 vaccination. Almost 61% of those saying science will help immunize people against the pandemic will definitely go for vaccination. Among those who think science is overrated similar 61% say they will definitely not go (Figure 18). The belief that science is overrated strongly discourages participation in COVID-19 vaccinations in all countries (Figure 19). Not a very high share of the population, but still 10% of the respondents in the 7 countries are of the opinion that science is overrated.

Figure 18: Who thinks science is overrated is not ready to go for COVID-19 vaccination

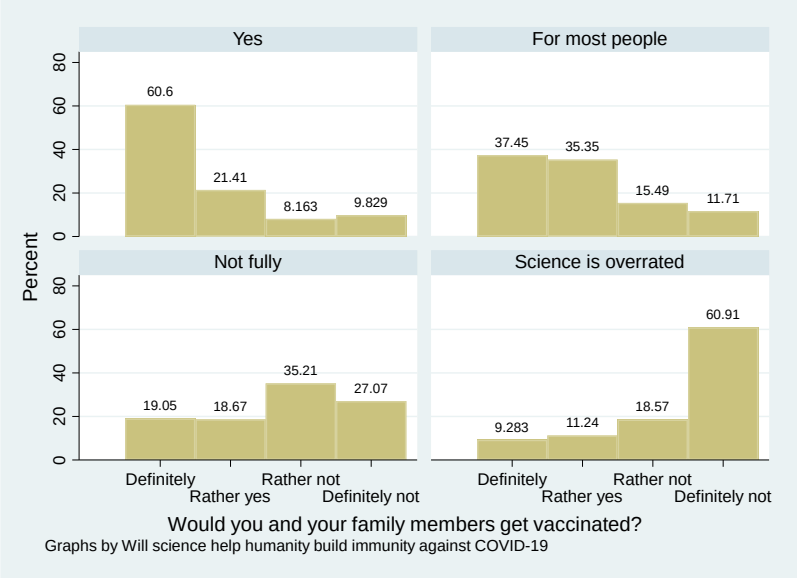
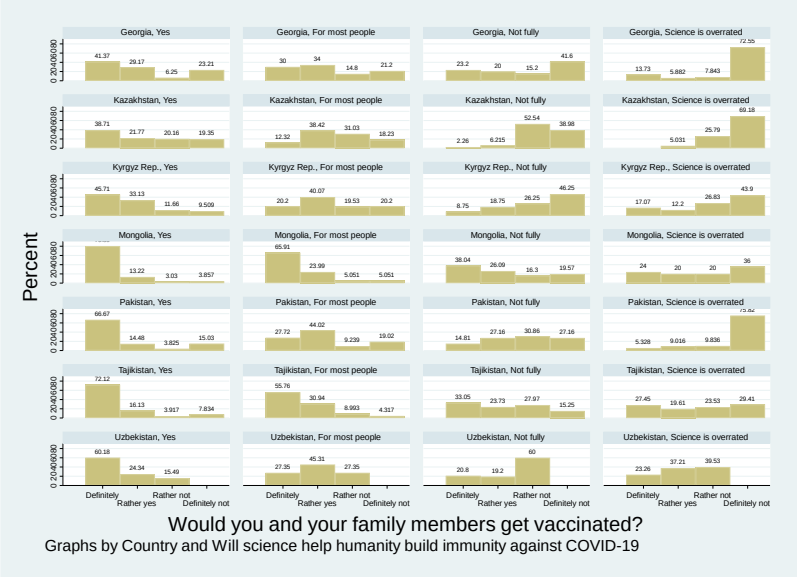


Figure 19: Believing science is overrated is strongly COVID-19 vaccination-negative in all countries

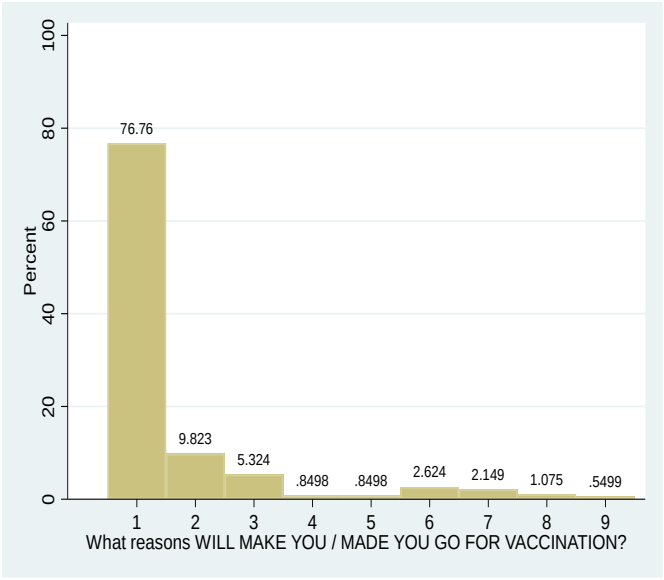


ARGUMENTS

For COVID-19 vaccination: "I want to protect my family"

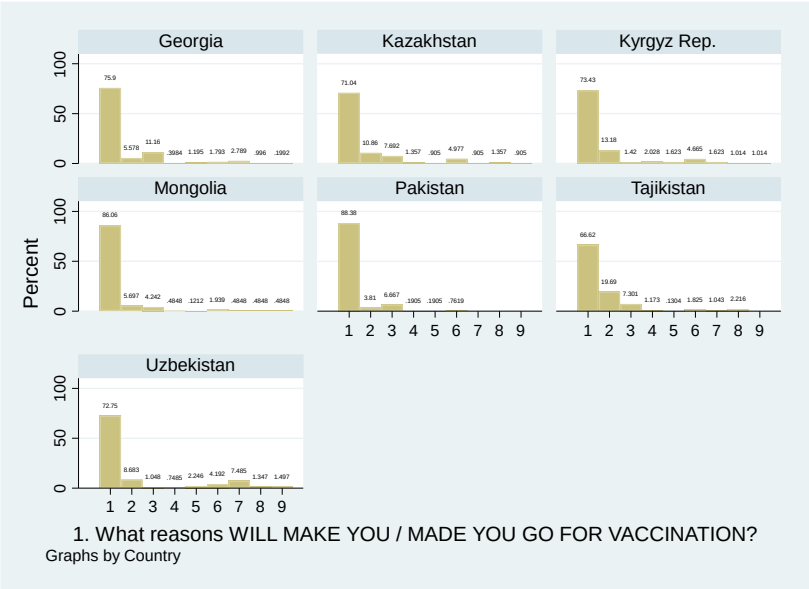
While answers are rather mixed to most other questions, a high majority has one and the same answer to the question "What reasons will make you go for COVID-19 vaccination?". Almost 77% of respondents answered: "I want to protect my family" (Figure 20). This is followed by "I want/wanted to protect my community" with 10%. Only 5% came up with "I want/wanted to protect myself", all other answers had even less popularity. "I want to protect my family" is the most used argument by far in all countries (Figure 21).

Figure 20: High majority says "I want to protect my family"



1. I want/wanted to protect my family
2. I want/wanted to protect my community
3. I want/wanted to protect myself
4. I have a chronic illness like asthma or diabetes, so it is important for me to get the COVID-19 coronavirus vaccine
5. My doctor recommends vaccination
6. This is the best way to avoid a serious coronavirus disease
7. It will make me feel safe in the company of other people
8. Life will not return to normal until most people get vaccinated
9. I am/was obligated (at work/at the place of study/etc.)

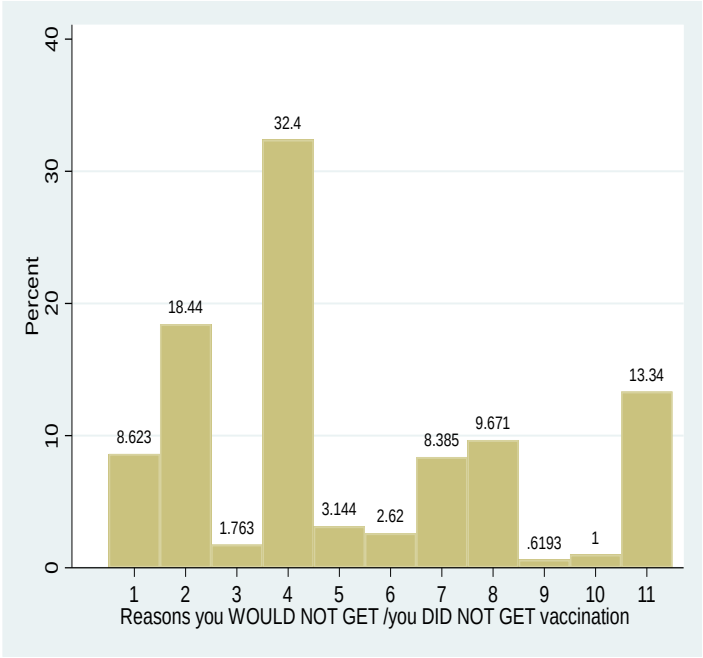
Figure 21: Large majority says "I want to protect my family" in all countries



Against COVID-19 vaccination: Safety concerns, disregard of danger, disbelief in vaccines

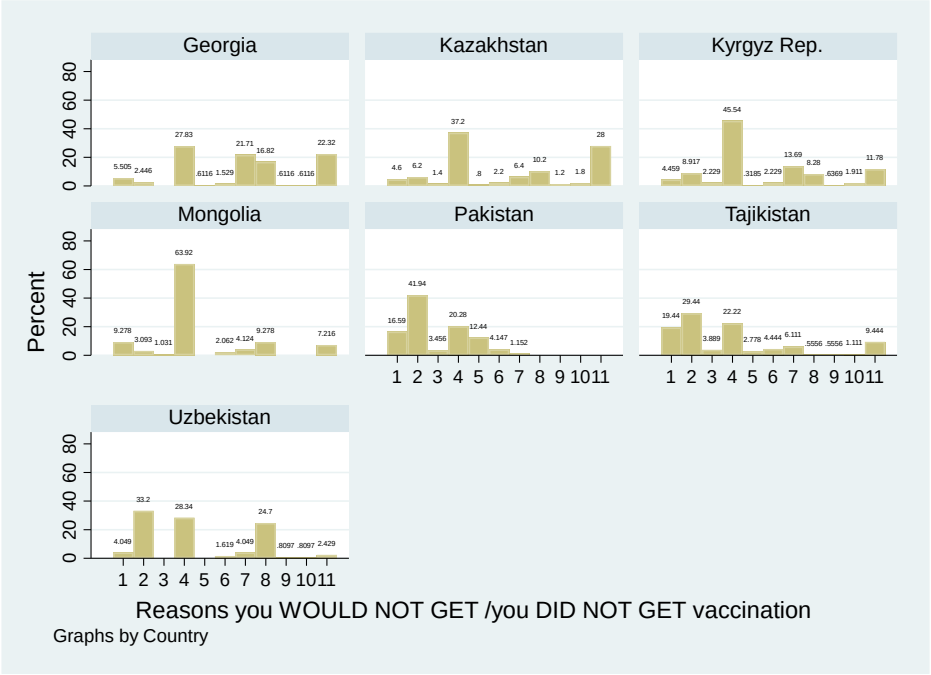
The highest concern regarding COVID-19 vaccinations is about side effects. 32% of respondents mentioned this as reason why they would not get vaccinated (Figure 22). As much as 18% say they are not afraid of the COVID-19 disease, and 13% do not believe that a vaccine would protect them. 8% are of the opinion that "Natural immunity is better than vaccine-induced immunity".

Figure 22: Most fear side effects



1. I am allergic to vaccines
2. I'm not concerned about getting seriously ill from the coronavirus
3. I won't/didn't have time to get vaccinated
4. I am concerned about side effects from the vaccine
5. There is no vaccination possibility close to where I live
6. COVID-19 (coronavirus) is not as serious as some people say
7. Natural immunity is better than vaccine-induced immunity
8. Vaccines are developed to hasty and have not been sufficiently tested
9. I have already been ill and have antibodies, and don't think I can get sick now
10. My religious beliefs do not allow vaccination
11. I don't believe the vaccine will effectively protect against disease

Figure 23: Most fear side effects in all countries



Fear of side effects is widespread in all 7 polled countries (Figure 23). In Pakistan, Tajikistan, and Uzbekistan there is also a relatively high share of respondents that are not concerned about falling seriously ill with COVID-19.

OVERVIEW OF PUBLIC OPINION RESEARCH BY OTHER INSTITUTIONS

COVID-19 impact on Daily Life

The coronavirus pandemic has seriously affected people's daily lives and has forced many to rethink their everyday habits. People perceive the need for staying at home, enhanced maintenance of hygiene standards, and wearing additional protective equipment (such as masks and gloves) differently, depending on their country of residence, their age, gender, and social status. To have a better understanding, we are providing a research overview that covers both individual countries and a multi-country perspective.

The World Association for Public Opinion Research (WAPOR) formed a list of research from around the world on social issues related to the COVID-19 pandemic[18]. From the more than 80 links on the official website of the organization, we shortly discuss a few studies.

Results of the Kantar survey conducted among 7005 respondents from G7 countries (Canada, France, Germany, Italy, Japan, Great Britain, and the USA) reflect the expectations of people on how the pandemic would impact their daily lives[19]. According to data from online interviews conducted on March 19-21, 2020, 71% of people expected that their financial conditions would worsen. Within this, Italy (85%), the USA (75%) and Canada (75%) had the largest number of people who expected a deterioration of their personal incomes. According to the results of the survey, the majority of people surveyed in France were skeptical about the level of preparedness of their public services system to cope with the pandemic and its consequences. At the same time, most people in Canada (65%), Germany (56%) and Great Britain (57%) highly rated the preparedness of their governments. The respondents in Japan (46%) and in Italy (37%) demonstrated a high level of trust in TV news as the information source. In Canada people also trust the government, whereas the majority of people in the USA believe that issues related to COVID-19 should be covered by medical organizations. It should be noted that the Japanese are less likely to approve social distancing (28%), but they wore masks more often than others (65%).

According to a representative survey conducted in March 2020 by Gallup International among respondents from 28 countries, 62% supported the efforts of their governments in fighting COVID-19[20]. At the same time, almost half of them believed that the epidemic threat was exaggerated. About a quarter of all respondents were ready to sacrifice some of their human rights if this helped prevent the spread of the virus. However, this indicator was the lowest in Japan: 48% were not willing to sacrifice their rights for the successful pandemic response. Another aspect that stood out was that 63% of residents of all countries considered wearing masks an ineffective measure in COVID-19 response. An exception was Korea, where 94% of respondents chose masks as preventive measure. As it was noted in the survey, that a large percentage of people in some countries did not use any preventive measures, including Pakistan (43%), Turkey (32%) and Russia (23%).

A report provided by the Clima Social research company presents results of surveys conducted in Latin American countries[21]. Common fears experienced by the majority of respondents included: fear of infection and fears associated with the loss of financial well-being. According to the surveys, pessimistic sentiments regarding the future economic situation were dominating: 78% of people in Bolivia were prepared for an economic collapse, while 84% expected to deplete their savings and would need financial assistance from the state. At the same time, despite general growth of fears, 40.8% of Chileans did not support the imposition of a curfew in the country. Meanwhile, all respondents in Ecuador agreed with the need for a lockdown. As for the effectiveness of measures taken, 70% of Chileans believed that the government was rather slow in responding to the pandemic threat. At the same time, there was an increase in the number of people who complied with sanitary requirements in terms of hygiene and social distancing. Peruvians believed that in self-isolation they had enough free time to spend with their families (53%), and more time for themselves (46%), to practice their hobbies (32%) and save money (26%).

[18] COVID-19 Public Opinion Research - World Association for Public Opinion Research (wapor.org)
[19] Seven in ten in G7 say personal income has or will be affected by coronavirus (kantar.com)
[20] The Coronavirus: A vast scared majority around the world: gallup-international.com (gallup-international.com)
[21] COVID 19 Resumen de estudios de opinión pública Latinoamérica (clima.social)

According to the public opinion research performed by the Association for Canadian Studies on March 27-29 among 1590 Canadians and 1004 Americans, more than 60% of people in the two countries were personally afraid of being infected and relatively more often worried about the health of their family members[22]. Fewer than one-fifth of the respondents had at least one of the common coronavirus symptoms. Even though 92% of respondents did not know anyone who had received a confirmed COVID-19 diagnosis, 17% of those surveyed in Canada and 29% of those surveyed in the USA believed that the pandemic threat was exaggerated.

According to the Novus Research Company, 72% of people in Sweden with a confirmed COVID-19 diagnosis did not seek treatment at medical centers and preferred to be treated at home[23]. The survey had been conducted over a long-time span that begun in March 2020. It involved over 2000 respondents. Judging by the survey results, the number of people adhering to the mask-wearing regime in Sweden was growing. According to the authors, this can be explained by the fact that the government stipulated the need to wear masks in public places. In the distribution of responses to the question about the worst coronavirus symptoms, "loss of senses of taste and smell" was most often noted.

Another source for relevant coronavirus research is the SEAN archive of the Langer Research Associates, an independent company[24]. The resource is a collection of weekly overviews, including COVID-19 survey results that have been published by different organizations since the beginning of the pandemic. The first issued overviews included data from social, behavioral, and economic research related to COVID-19 that covered the situation in the USA and certain results in other countries. According to a Grinnell College National poll conducted jointly with Selzer & Company in March 2020, the majority of Americans (N=1009) positively evaluated the prospects for their country's recovery from the crisis associated with the pandemic (88%)[25]. Moreover, 7 out of 10 respondents stated that they were ready to stay at home as long as was necessary (N = 507). The authors noted that the pandemic is more likely to adversely impact the financial state of Americans under 35 who are mostly engaged in the service sector. Thus, the majority of young respondents expected to experience the following economic losses in their near futures: downgrading or dismissal from work (45%), inability to pay bills (43%), and loss of wages (57%). 91% of respondents considered personal physician's recommendations a reliable source of information about COVID-19, and 62% mostly trusted government health experts.

The SEAN overviews also include a public opinion poll developed and conducted by researchers from the Kaiser Family Foundation (KFF)[26]. Telephone interviews conducted at the end of March involved 1226 respondents over 18 years of age. Judging by the survey results, almost 62% of respondents worried about the risk for them or their family members to be infected. Americans were also concerned about traditional problems associated with the pandemic: job loss (52%), income loss due to the shutdown of organizations or reduced working hours (45%), and the negative impact of the pandemic on savings and investment (59%). The growing anxiety of people mobilized them to observe social distancing requirements: to cancel travel, and to work and study remotely (92%), and to not leave home, except to purchase essential goods (82%).

One of the important aspects of the pandemic is the change in the values of the people experiencing it. To study this, the coordinators of The World Values Survey project announced a project on international panel surveys "Values in a Crisis"[27]. The project plans to organize three waves of surveys among 1000-2000 respondents: during the pandemic (Wave 1); when social life begins to return to normal (Wave 2); and six months later, when the economy recovers from the expected recession (Wave 3). The researchers plan to track how the respondents' perceptions of the pandemic crisis are changing and how these changes affect their moral values. The questionnaire will cover standard socio-demographic characteristics, as well as four thematic blocks: perception of the crisis, moral values, character traits and social orientation.

[22] Concerns About COVID-19 – March 31, 2020 – Leger (leger360.com)
[23] Novus Coronastatus - Novus
[24] SEAN COVID-19 Survey Archive (parc.us.com)
[25] Americans Showing Resolve Through COVID-19 Crisis | Grinnell College
[26] KFF Health Tracking Poll – Early April 2020: The Impact Of Coronavirus On Life In America | KFF
[27] WVS Database (worldvaluessurvey.org)

Thus, the world community has launched a number of studies, the results of which can be a starting point for understanding the processes taking place in societies against the background of the changes brought about by the pandemic.

Attitudes towards Vaccination

The relevance of the topic of vaccination and the great interest in the attitude of people to immunization, including the COVID-19 vaccination, is evidenced by a number of international studies.

In general, a majority of people in the countries participating in the surveys are doubtful about the vaccines being developed. Despite increasing confidence in vaccinations during the COVID-19 pandemic, many respondents are ready to use vaccines only after receiving official confirmation of their safety.

For instance, international research published by *The Lancet*, a reputable journal, studied the attitudes of people from 149 countries towards vaccination from 2015-2019[28]**.** The European countries demonstrated the lowest level of confidence. However, most of these countries showed an insignificant growth of confidence in vaccination. Reports from pharmaceutical companies about the potential dangers posed by Dengue vaccines led to a significant decline in vaccine confidence in Indonesia and the Philippines in 2015-2018. The group of countries with the lowest level of confidence in vaccines included Japan, where, according to the authors, the safety of the human papillomavirus vaccine raised a high level of concern. As a result, the government decided to withdraw its recommendation on the need for this vaccination. In addition, the article notes that the influence of the Internet as a primary information source generates disinformation among the people and is a key barrier to vaccine acceptance. Movements that impede the immunization of the population are being organized in some countries—for example, in South Korea and Malaysia. Poorly educated men more often have negative views about vaccination. The more a person trusts medical professionals, and the more often he or she demonstrates the experience of seeking positive information sources, the more likely he or she is ready to be vaccinated.

Over 3000 Australians were surveyed about their attitudes towards COVID-19 vaccination within the framework of another longitudinal study that was performed by the ANU Centre for Social Research and Methods[29]. More often women residing in deprived areas, sharing populist and religious views were hesitant about vaccination. Conversely, the respondents with a higher income level, observing social distancing and using a special mobile application which allowed them to detect contacts with infected people, as well as those who had more confidence in their government and medical institutions, were more likely to be favorably disposed toward vaccination.

International research performed in June 2020 involved 13,426 respondents from 19 world countries[30]. The respondents were sampled through several international online providers; within this network, the identity of each respondent was verified via their IP address and mobile phone number. The results demonstrated that 80% of people in Asian countries held a high level of confidence in their governments (in the People's Republic of China, Singapore, and South Korea). Along with the medium-income representatives from Brazil, India and South Africa, these people were favorably disposed toward vaccination. People aged 25-54 and 55-64 relied on vaccination recommendations provided by their employers, while most elderly people tended to accept the future vaccines. Men in this survey were less favorably disposed to the procedure than women. Income levels had a positive impact on the readiness for the COVID-19 vaccination. The research found that all respondents, regardless of their nationality, were less likely to accept vaccination at the mandatory request of their employers. In other words, vaccination should be voluntary.

[28] Mapping global trends in vaccine confidence and investigating barriers to vaccine uptake: a large-scale retrospective temporal modelling study - The Lancet
[29] https://doi.org/10.1101/2020.11.13.20231480
[30] https://doi.org/10.1038/s41591-020-1124-9

The results of IPSOS research conducted among 18,526 respondents from 15 world countries shows the readiness of 73% of respondents to accept the COVID-19 vaccine [31]. This indicator is 4% lower than three months earlier which, according to the authors, indicates a decrease in people's intentions to accept the vaccine when it becomes available. The online survey was conducted from October 8-13, 2020 on the Global Advisor online platform. The Japanese more often expressed their concerns about the vaccination effects (62%). Brazilian and Spanish respondents (at 48% each) often stated concerns that clinical trials would be carried out in haste. The largest percentage of those who did not intend to accept the vaccine included the respondents from South Africa (21%) and India (19%). According to the data, half of the respondents are ready to be vaccinated fewer than three months after the vaccine becomes available to everyone.

According to London YouGov's Data Hub, the highest percentage of people's readiness to get the COVID-19 vaccine was in Great Britain, at 71.3%, while the lowest was in France at just 29.8%[32]. Countries with a lower level of people's readiness for vaccination included Japan (36.7%) and Singapore (34.6%). The survey data represents the proportion of respondents who agreed with the following statement: "If a COVID-19 vaccine were made available to me, I would definitely get it" (from "1" - strongly agree to "5" - strongly disagree).
In a survey conducted in France among people over 18 years of age after the nationwide lockdown was introduced (from March 27-29, 2020), it was observed that despite the high mortality rate during that period and the restrictions imposed, 26% of respondents were not ready to be vaccinated against COVID-19[33]. Most often, this opinion was shared by respondents with low incomes, female respondents, and elderly people over the age of 75.

Young people in Italy were hesitant about the vaccination due to their "invulnerability bias"; in other words, they felt less at risk from infectious diseases[34]. These results were obtained from a survey among 1004 Italian citizens over 18 years of age. Moreover, the authors noted that there was a positive relationship between a person's psychological attitudes about taking care of their own health and their involvement in the proposed immunization.

Based on the data from various studies analyzed above, the following conclusions can be drawn: a high level of doubt and hesitancy among the people can be one of the main barriers to global immunization.

The situation in the PRC

The WAPOR website provides four links to investigations performed by sociologists from the PRC, who have studied the public opinion at the very beginning of the new coronavirus infection's incidence – in January and February 2020[35]. Two out of them are focused on the knowledge about the virus, preventive measures and public sentiment, others are devoted to the epidemic impact on the economy of the country and of its citizens.

A survey was conducted in 31 administrative units of the PRC as part of the sociological study "Public Awareness of the New Coronavirus" and "Individual Anti-epidemic Behavior[36]. The nationwide online survey took place on January 26, 2020. The survey demonstrated that respondents with higher education were the most concerned about the epidemic. The share of university graduates who were concerned was 15 percentage points higher than the share of respondents with a secondary or incomplete education. The main information sources for the respondents were microblogs, media sites and their mobile applications. Thus, almost two thirds of respondents learned about the epidemic via the Internet.

[31] COVID-19 vaccination intent is decreasing globally | Ipsos
[32] GitHub - YouGov-Data/covid-19-tracker: This is the data repository for the Imperial College London YouGov Covid 19 Behaviour Tracker Data Hub.
[33] https://doi.org/10.1016/S1473-3099(20)30426-6
[34] https://www.mdpi.com/2076-393X/8/4/576
[35] https://wapor.org/resources/covid-19-public-opinion-research/
[36] https://zhuanlan.zhihu.com/p/104541820?utm_source=qq // 万人调查：面对疫情，你还好吗

The majority of respondents were aware of the fact that the new coronavirus is spread via respiratory tracts (98.8%) and of the need therefore to wash their hands with soap (94.8%). This means that from the very beginning of the epidemic, people were quite well aware of preventive measures. This was largely due to the large-scale information campaigns on disease prevention organized by the Chinese authorities. After being informed about the outbreak, two-thirds of the respondents noted that they had begun wearing masks outside of their home regularly, and 12.8% washed their hands more frequently.

RESEARCH METHODOLOGY

Purpose of the Research: studying of the views of the population of seven CAREC countries on vaccinations against COVID-19.

Research topics:

1.Attitudes towards vaccinations: personal experience and evaluation of the effectiveness of vaccinations;
2.Attitudes towards vaccinations against COVID-19: awareness, sources of information, and vaccine safety;
3.The main reasons for participating in vaccinations against COVID-19;
4.The main reasons for refusal to vaccinate against COVID-19;
5.The attitude of the population of countries to paying for a vaccine against COVID-19;
6.The relationship to containment measures in cases of vaccine ineffectiveness;
7.The assessment of the possibilities of scientific developments from COVID-19 in the future;
8.The assessment of the impact of COVID-19 on daily life;
9.Experiences with COVID-19: severity of the disease, form of treatment, safety measures.

Project countries-participants [37] : Georgia, Kazakhstan, Kyrgyz Republic, Mongolia, Pakistan, Tajikistan, Uzbekistan.
Chronological scope of the project: December 2020 – March 2021 года.
Fieldwork dates: December 29, 2020 года – January 14,2021.
Sample: In each country 1000 respondents were interviewed from a representative sample. The total number of respondents was 7000. The sample selection was based on demographic data (from official statistics). The sample is representative based on gender, age, nationality, place of residence. The specifics of each country were taken into account when calculating the sample. The selection of the respondents was carried out in accordance with international requirements and the national characteristics of each country. The sampling error is 3,09%.
The sample for the Kyrgyz Republic was artificially changed towards an increase in the number of urban residents due to the inaccessibility of a number of rural regions during the survey period.

Research geography:

1. Georgia – 8 regions, the Autonomous Republic of Adjara, a city of republican significance, and the capital – Tbilisi.
2. Kazakhstan – 14 oblasts and three cities of republican significance - Nur-Sultan, Almaty, Shymkent.
3. Kyrgyz Republic – 7 oblasts and two cities of republican significance – Bishkek and Osh.
4. Mongolia – 21 aimaks and the capital Ulaanbaatar.
5. Pakistan – 4 provinces and the capital Islamabad.
6. Tajikistan – 3 oblasts, Dushanbe and areas of republican subordination
7. Uzbekistan – 12 oblasts, Tashkent and Karakalpakstan.

Respondent selection method: Random selection within quota based on basic socio-demographic parameters.

Age of respondent: age of 18 and above.

[37] The CAREC Institute is shared, owned and operated by eleven member countries: Afghanistan, Azerbaijan, Georgia, Kazakhstan, Kyrgyz Republic, Mongolia, Pakistan, Tajikistan, Turkmenistan, Uzbekistan

Number of questions in the questionnaire: 27 + 7 socio-demographic parameters.

Survey method:

1. Georgia –CATI
2. Kazakhstan –CAWI
3. Kyrgyz Republic –CAWI
4. Mongolia –CATI
5. Pakistan –face-to-face
6. Tajikistan –CAWI, face-to-face
7. Uzbekistan –CAWI

Quality control: in each country 20% of the randomly selected questionnaires of each interviewer were checked.

Data processing: the SPSS program was used for survey results processing.

Project team: Lead: Hans Holzhacker (CAREC Institute), Botagoz Rakisheva (Public Opinion Research Institute, Kazakhstan)
Contributors; Botagoz Rakisheva, Hans Holzhacker, Ainur Mazhitova, Assel Aizhanova, Gulden Ashkenova, Laura Mustafina, Amina Urpekova, Damira Burina, Aizhan Nurgaliyeva (Public Opinion Research Institute, Kazakhstan)

Table C. Research organizations-participants of the project

Country	Organization
Georgia	Gamma Group
Kazakhstan	Public Opinion Research Institute
Kyrgyz Republic	Public Processes Design and Expertise Bureau
Mongolia	Research Center Operative Gikon Co Ltd
Pakistan	Gallup Pakistan
Tajikistan	Ravzana Center for Sociological Research and Monitoring
Uzbekistan	OOO Into Research

The Customer of the research project is the CAREC Institute (Central Asia Regional Economic Cooperation).

The research was funded by the Asian Development Bank.

Table D. Basic parameters of a sociological research

	Georgia	Kazakhstan	Kyrgyz Republic	Mongolia	Pakistan	Tajikistan	Uzbekistan
Geography of the survey	8 regions, Autonomous Republic of Adjara and Tbilisi	14 obl., Nur-Sultan, Almaty, Shymkent	7 obl, Bishkek, Osh	21 aimak and Ulaanbaatar.	4 provinces and Islamabad.	3 obl., Dushanbe and Areas of republican subordination	12 obl. Tashkent, Autonomous Republic of Karakalpakstan
Settlements	City – 56.7% Village – 43.3%	City – 60.2% Village – 39.8%	City – 51.4% Village – 48.6%	City – 68.9% Village – 31.1%	City – 56.0% Village – 44.0%	City – 26.4% Village – 73.6%	City – 52.5% Village – 47.5%
Sample (number of respondents)	1000	1000	1000	1000	1000	1000	1000
Age of respondents	Age of 18 and above	Age of 18 and above	Age of 18 and above	Age of 18 and above	Age of 18 and above	Age of 18 and above	Age of 18 and above
Survey method	CATI	CAWI	CAWI	CATI	face-to-face	CAWI face-to-face	CAWI
Household respondent selection method	Quota	Quota	Quota	Quota	Kish grid	Quota	Quota
Number of questions in the questionnaire	27	27	27	27	27	27	27
The number of parameters of the socio-demographic block	7	7	7	7	7	7	7
Field work time	January 2021	January 2021	January 2021	December 2020 - January 2021	January 2021	January 2021	December 2020 - January 2021
Survey language	Georgian	Kazakh Russian	Kyrgyz Russia	Mongolian	Urdu	Tajik, Russian	Uzbek, Russian

SOCIO-DEMOGRAFIC PROFILE OF RESPONDENTS

The main and additional socio-demographic parameters of the sample of each country reflect the demographic profile of the adult population according to the latest Census data.

Main socio-demographic parameters

E1. Gender of respondents

Answer options	*Georgia*	*Kazakhstan*	*Kyrgyz Republic*	*Mongolia*	*Pakistan*	*Tajikistan*	*Uzbekistan*
Male	46.3	45.3	52.7	49.4	47.1	50.4	49.4
Female	53.7	54.7	47.3	50.6	52.9	49.6	50.6
Total	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***

E2. Age of respondents

Answer options	*Georgia*	*Kazakhstan*	*Kyrgyz Republic*	*Mongolia*	*Pakistan*	*Tajikistan*	*Uzbekistan*
18-29	20.6	25.6	33.7	28.4	26.6	45.3*	35.5**
30-45	29.3	37.8	33.2	40.0	49.1	34.7	31.4
46-60	27.7	24.5	23.4	22.1	19.7	17.4	23.5
61 and above	22.4	12.1	9.7	9.5	4.6	2.6	9.6
Total	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***

* According to the Agency on Statistics under the President of the Republic of Tajikistan, the number of citizens from 15 to 29 years old is 42.4% of the total population of the country. Source: *http://stat.ww.tj/publications/July2019/macmuai_sumorai_aholi_to_1_anvari_soli_2019.pdf*

** According to the State Statistics Committee of the Republic of Uzbekistan, the number of citizens from 15 to 29 years old is 36% of the total population of the country. Source: https://stat.uz/ru/ofitsialnaya-statistika/demography

Additional socio-demographic parameters

E3. Marital status of respondents

Answer options	*Georgia*	*Kazakhstan*	*Kyrgyz Republic*	*Mongolia*	*Pakistan*	*Tajikistan*	*Uzbekistan*
Married	63.6	64.5	64.6	58.0	83.5	62.1	75.2
Not married, but live with a partner	2.6	3.7	8.1	13.2	-	1.4	1.2
Divorced	3.0	8.0	2.5	4.0	0.4	3.4	3.1
Single	23.1	19.5	19.9	19.2	11.5	29.5	18.9
Widow (-er)	7.7	4.3	4.9	5.6	4.6	3.6	1.6
Total	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***

E4. Employment

Answer options	*Georgia*	*Kazakhstan*	*Kyrgyz Republic*	*Mongolia*	*Pakistan*	*Tajikistan*	*Uzbekistan*
Yes (full time)	30.8	53.4	47.6	54.5	43.5	30.0	51.3
Yes (part-time)	5.8	8.6	14.7	7.4	7.4	9.5	12.5
Casual work, seasonal work	2.7	7.2	9.1	9.1	4.7	14.7	5.1
No, I do not work	60.0	27.5	28.6	24.4	42.5	44.4	30.9
Refusal to answer, no answer	0.7	3.3	-	4.6	1.9	1.4	0.2
Total	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***

E5. Education of respondents

Answer options	*Georgia*	*Kazakhstan*	*Kyrgyz Republic*	*Mongolia*	*Pakistan*	*Tajikistan*	*Uzbekistan*
No formal education (those who have no education but can read and write)	0.1	0.3	2.2	0.6	24.5	1.3	0.2
Preschool (kindergarten)	-	0.1	0.5	0.1	2.7	-	-
Primary (grades 1 to 4)	0.1	-	1.0	1.0	6.8	0.6	-
Basic secondary (grades 5 to 9)	10.7	1.1	2.7	5.6	22.8	10.6	1.6
General secondary (graduated from secondary school, lyceum, gymnasium, etc., and received a certificate of secondary (complete) general education;)	19.2	11.0	12.6	25.4	21.7	30.0	11.0
Initial vocational (vocational lyceum, factory training school, etc.)	5.1	4.0	2.9	3.6	0.3	2.6	1.6
Secondary specialized (graduated from a technical school, school (for example, medical, pedagogical), college, technical school-enterprise, vocational or vocational school)	15.6	26.3	15.2	7.2	-	16.5	42.9
Incomplete higher education (students who are currently studying)	4.7	6.8	8.0	6.4	11.4	15.1	9.3
Higher (graduated from a university: institute, academy, university, etc.)	41.7	42.5	49.7	42.4	6.7	21.0	30.7
Postgraduate education (completed postgraduate studies, doctoral studies, residency and postgraduate studies (regardless of the dissertation defense))	2.6	5.6	5.2	3.1	3.0	1.0	2.3
Refusal to answer	0.2	2.3	-	4.6	0.1	1.3	0.4
Total	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***

CROSS-COUNTRY RESEARCH RESULTS

Evaluation of the effectiveness of vaccinations

One of the methods to combat COVID-19 is to vaccinate the population, however, there are different opinions in society regarding vaccinations and their effectiveness. The survey showed that the responses of respondents from seven countries can be divided into three groups[38].

Group one – most respondents in these countries are of the opinion about the **effectiveness of vaccinations in general**:

- ✓ in Mongolia, **71.9%** of the surveyed population consider vaccinations to be effective, 6.3% hold the opposite opinion, and 21.8% found it difficult to answer;
- ✓ in Tajikistan **66.8%** of respondents say about efficiency, about inefficiency - 20.7%, 12.5% found the question difficult;
- ✓ in Uzbekistan, the share of respondents who consider vaccinations to be effective was **63.9%,** while 23.4% have a negative opinion, 12.7% found it difficult to answer;
- ✓ in Pakistan, half of the respondents also believe that vaccinations are effective - **50.2%,** 30.2% - think that vaccinations are not effective, 19.6% found it difficult to answer.
- ✓ in the Kyrgyz Republic, the share of respondents who support the opinion about the effectiveness of vaccinations was **41.8%,** those who do not support - 19.2%, while 39.0% found it difficult to answer.

Group two – **most respondents consider note vaccinations as ineffective**:

- ✓ in Kazakhstan, the majority of survey participants (43.7%) consider vaccinations to be ineffective, 29.2% believe in their effectiveness, more than a quarter of 27.1% found the question difficult.

Group three - **undecided/found it difficult to answer**:

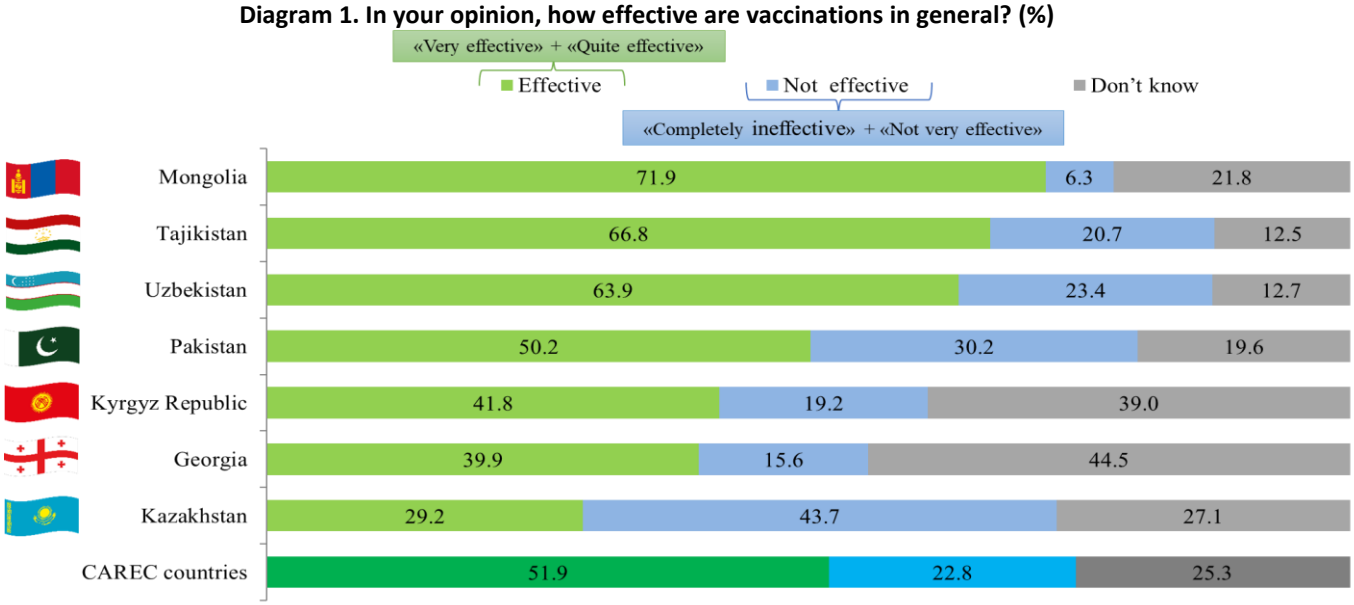
- ✓ in Georgia, the majority of respondents found it difficult to answer this question (44.5%), support the opinion about the effectiveness of vaccinations in the aggregate 39.9%, do not support 15.6% (Table 1, Diagram 1).

Table 1. In your opinion, how effective are vaccinations in general? (%)

Answer options	*Georgia*	*Kazakhstan*	*Kyrgyz Republic*	*Mongolia*	*Pakistan*	*Tajikistan*	*Uzbekistan*	*7 COUNTRIES*
Very effective	3.8	5.5	12.4	12.7	24.1	27.2	23.0	15.5
Quite effective	36.1	23.7	29.4	59.2	26.1	39.6	40.9	36.4
Total percentage	**39.9**	**29.2**	**41.8**	**71.9**	**50.2**	**66.8**	**63.9**	**51.9**
Not very effective	9.0	24.7	11.8	4.9	12.8	13.2	17.1	13.4
Completely ineffective	6.6	19.0	7.4	1.4	17.4	7.5	6.3	9.4
Total percentage	**15.6**	**43.7**	**19.2**	**6.3**	**30.2**	**20.7**	**23.4**	**22.8**
Don't know	44.5	27.1	39.0	21.8	19.6	12.5	12.7	25.3
Total	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***

[38] Here and later, the sum of the results is not necessarily exactly equal to 100% (the difference may be +/- 1%), which is due to the rounding of the numbers.

Diagram 1. In your opinion, how effective are vaccinations in general? (%)



Considering the responses by **age groups**, it can be concluded that vaccinations are considered ineffective by:

- ✓ mostly by youth (18.9%) from Georgia,
- ✓ in Kazakhstan mainly aged 46-60 years: (48.5%),
- ✓ in the Kyrgyz Republic mostly respondents over 65 years old (30.9%),
- ✓ in Mongolia mostly in the age group from 18 to 29 years old (7.1%)
- ✓ 30-45 year old respondents from Pakistan (32.4%),
- ✓ 30-45 year old respondents from Tajikistan (22.5%),
- ✓ 30-45 year old respondents from Uzbekistan (24.8%),

It should be noted that among all age groups in all countries there are respondents who found it difficult to answer the question about the effectiveness of vaccinations. Most of these respondents are among the survey participants from Georgia, Kazakhstan, and the Kyrgyz Republic (Table 2).

Table 2. In your opinion, how effective are vaccinations in general? (%, age of respondents)

Answer options	*Aged 18-29*	*Aged 30-45*	*Aged 46-60*	*Aged 61+*
Georgia				
Very effective	3.9	3.8	2.5	5.4
Quite effective	35.0	34.8	35.7	39.3
Not very effective	13.1	9.2	6.5	8.0
Completely ineffective	5.8	7.5	8.7	3.6
Don't know	42.2	44.7	46.6	43.8
Kazakhstan				
Very effective	7.0	4.0	4.5	9.1
Quite effective	25.8	20.4	24.1	28.9
Not very effective	27.0	24.6	26.5	16.5
Completely ineffective	13.3	21.2	22.0	18.2
Don't know	27.0	29.9	22.9	27.3
Kyrgyz Republic				
Very effective	12.2	11.1	14.1	13.4
Quite effective	37.1	23.2	27.4	28.9
Not very effective	6.2	14.8	11.5	21.6
Completely ineffective	5.3	7.5	9.4	9.3
Don't know	39.2	43.4	37.6	26.8
Mongolia				
Very effective	13.0	11.3	14.5	13.7
Quite effective	55.3	55.5	63.8	75.8
Not very effective	5.3	5.3	4.5	3.2
Completely ineffective	1.8	1.5	0.9	1.1
Don't know	24.6	26.5	16.3	6.3
Pakistan				
Very effective	29.3	21.6	24.4	19.6
Quite effective	28.6	23.8	27.9	28.3
Not very effective	11.3	12.8	15.2	10.9
Completely ineffective	16.5	19.6	13.7	15.2
Don't know	14.3	22.2	18.8	26.1
Tajikistan				
Very effective	25.2	29.1	28.7	26.9
Quite effective	43.7	36.0	37.4	30.8
Not very effective	13.0	15.0	10.9	7.7
Completely ineffective	8.2	7.5	5.7	7.7
Don't know	9.9	12.4	17.2	26.9
Uzbekistan				
Very effective	20.8	21.7	25.1	30.2
Quite effective	41.1	42.4	38.7	40.6
Not very effective	16.1	19.1	18.3	11.5
Completely ineffective	7.0	5.7	5.5	7.3
Don't know	14.9	11.1	12.3	10.4

When considering the respondents' answers **in terms of gender**, men are more skeptical in Kazakhstan (46.4%), Uzbekistan (24.3%), Tajikistan (23.6%), Kyrgyz Republic (23.0%), Mongolia (6,9%).
Women believe that vaccinations are not effective in Pakistan - 33.7% and in Georgia - 16.3% (Table 3).

Table 3. In your opinion, how effective are vaccinations in general? (%, gender of respondents)

Answer options	*Male*	*Female*
Georgia		
Very effective	3.0	4.5
Quite effective	32.4	39.3
Not very effective	7.6	10.2
Completely ineffective	7.1	6.1
Don't know	49.9	39.9
Kazakhstan		
Very effective	5.5	5.5
Quite effective	22.1	25.0
Not very effective	25.4	24.1
Completely ineffective	21.0	17.4
Don't know	26.0	28.0
Kyrgyz Republic		
Very effective	10.4	14.6
Quite effective	27.9	31.1
Not very effective	13.7	9.7
Completely ineffective	9.3	5.3
Don't know	38.7	39.3
Mongolia		
Very effective	14.4	11.1
Quite effective	58.3	60.1
Not very effective	5.5	4.3
Completely ineffective	1.4	1.4
Don't know	20.4	23.1
Pakistan		
Very effective	25.1	23.3
Quite effective	28.9	23.6
Not very effective	14.9	11.0
Completely ineffective	11.5	22.7
Don't know	19.7	19.5
Tajikistan		
Very effective	26.0	28.4
Quite effective	41.5	37.7
Not very effective	15.7	10.7
Completely ineffective	7.9	7.1
Don't know	8.9	16.1
Uzbekistan		
Very effective	20.6	25.3
Quite effective	42.1	39.7
Not very effective	17.6	16.6
Completely ineffective	6.7	5.9
Don't know	13.0	12.5

In a number of countries, there is the trend: the higher the education level the higher the effectiveness of vaccinations is assessed (Table 4).

Table 4. In your opinion, how effective are vaccinations in general? (%, educational level of respondents)

	Georgia			***Kazakhstan***			***Kyrgyz Republic***			***Mongolia***			***Pakistan***			***Tajikistan***			***Uzbekistan***		
	No education, secondary education	*Vocational education*	*Higher education*	*No education, secondary education*	*Vocational education*	*Higher education*	*No education, secondary education*	*Vocational education*	*Higher education*	*No education, secondary education*	*Vocational education*	*Higher education*	*No education, secondary education*	*Vocational education*	*Higher education*	*No education, secondary education*	*Vocational education*	*Higher education*	*No education, secondary education*	*Vocational education*	*Higher education*
Effective	29.9	34.8	48.4	28.8	30.0	29.1	47.9	35.4	41.8	75.8	83.3	67.4	47.4	66.7	60.2	62.8	68.6	70.1	61.7	67.9	60.0
Non effective	15.9	18.8	13.9	59.2	43.9	39.7	22.1	28.2	15.7	3.4	4.6	8.1	31.1	33.3	27.0	21.4	20.4	20.8	20.3	21.8	26.2
Don’t know	54.2	46.4	37.8	12.0	26.1	31.1	30.0	36.5	42.4	20.8	12.0	24.5	21.5	-	12.8	15.8	11.0	9.2	18.0	10.3	13.7
Total	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***

The majority of respondents from all seven countries have not received any vaccinations in the last three years. The share of those who were vaccinated was: in the Kyrgyz Republic - 28.5%; in Mongolia - 26.5%; in Uzbekistan - 17.0%; in Kazakhstan - 13.8%; in Georgia - 10.9%; in Pakistan - 10.0%; in Tajikistan - 7.7% (Table 5).

Table 5. Please tell me, over the past 3 years, have you received any vaccinations? (%)

Answer options	*Georgia*	*Kazakhstan*	*Kyrgyz Republic*	*Mongolia*	*Pakistan*	*Tajikistan*	*Uzbekistan*	*7 Countries*
Yes	10.9	13.8	28.5	26.5	10.0	7.7	17.0	16.3
No	89.1	86.2	71.5	73.5	90.0	92.3	83.0	83.7
Total	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***

Attitudes towards vaccination against COVID-19: awareness, sources of information, vaccine safety

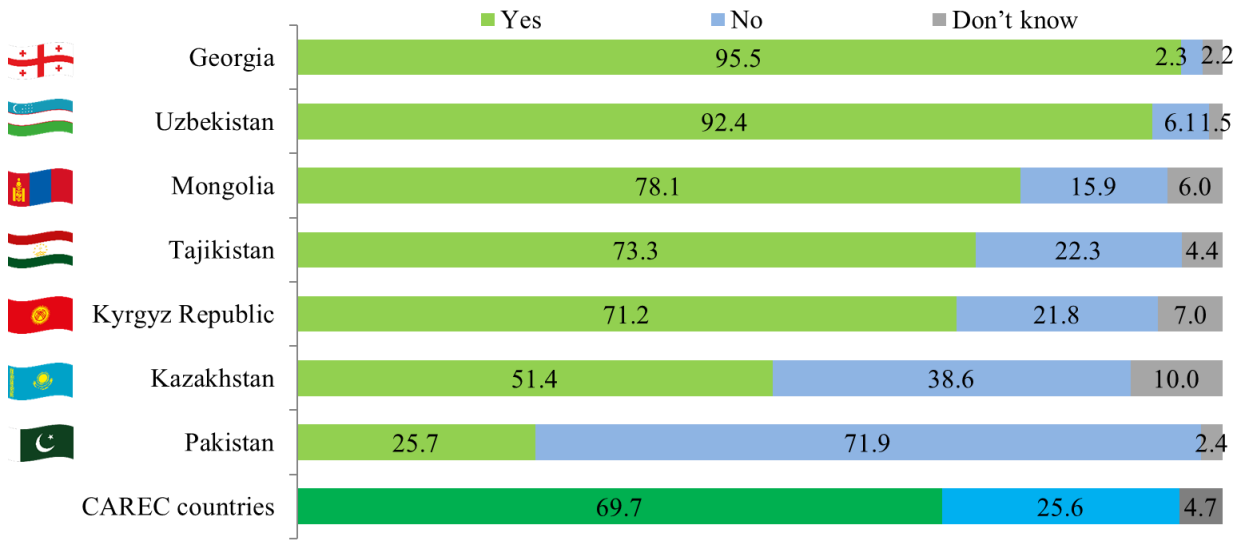
COVID-19 Vaccine Awareness

Today, one of the significant topics on the global pandemic agenda is the issue of vaccine production, vaccination of the population and the formation of herd immunity. In this regard, respondents from all seven countries participating in the project were asked to answer if they had heard anything about the coronavirus vaccines created by different manufacturers at the time of the survey (December 2020 - January 2021):

- ✓ **95.5%** of Georgian respondents have heard about the vaccines,
- ✓ **92.4%** of Uzbekistani respondents also know about the vaccines,
- ✓ **78.1%** of respondents from Mongolia are aware of the vaccines,
- ✓ **73.3%** of Tajikistanis have heard about the vaccines,
- ✓ **71.2%** of Kyrgyzstanis know about the vaccines,
- ✓ **51.4%** of survey participants from Kazakhstan know about the coronavirus vaccines,
- ✓ **25.7%** of respondents from Pakistan are also aware of the COVID-19 vaccines (Table 6).

The respondents from Pakistan (71.9%), Kazakhstan (38.6%), Tajikistan (22.3%), Kyrgyz Republic (21.8%), and Mongolia (15.9%) are the least aware of the production of the coronavirus vaccine.
On average, across all seven countries, the majority (69.7%) of survey participants are aware of the development of vaccines against COVID-19 (Diagram 2).

Diagram 2. Currently, vaccines against coronavirus are being developed in the world. Have you ever heard of a coronavirus vaccine before today? (%)



In terms of age, there is a group of respondents over 61 years old who are not informed about the development of vaccines against COVID-19: Kazakhstan - 47.1%, Kyrgyz Republic - 24.7%, Pakistan - 71.7%, Tajikistan - 26.9%, Uzbekistan - 8.3%.

They also do not know about the production of vaccines: respondents from Kazakhstan aged 46 to 60 years (42.4%), in Mongolia - 30-45 years old (19.3%), Pakistan - 18-29 years old (76.7%), Tajikistan - 30-45 years (26.2%) and 46-60 years (25.3%), in Uzbekistan - 30-45 years (8.0%) (Table 6).

Table 6. Currently, vaccines against coronavirus are being developed in the world. Have you ever heard of a coronavirus vaccine before today? (%, age of respondents)

Answer options	*Aged 18-29*	*Aged 30-45*	*Aged 46-60*	*Aged 61 and above*
Georgia				
Yes	94.2	96.2	94.6	96.9
No	2.4	2.7	2.2	1.8
Don't know	3.4	1.0	3.2	1.3
Kazakhstan				
Yes	51.6	55.3	49.8	42.1
No	37.5	34.1	42.4	47.1
Don't know	10.9	10.6	7.8	10.7
Kyrgyz Republic				
Yes	71.8	71.7	72.2	64.9
No	22.8	20.8	20.5	24.7
Don't know	5.3	7.5	7.3	10.3
Mongolia				
Yes	78.5	74.3	83.3	81.1
No	15.5	19.3	11.8	12.6
Don't know	6.0	6.5	5.0	6.3
Pakistan				
Yes	21.8	25.7	31.0	26.1
No	76.7	71.5	66.5	71.7
Don't know	1.5	2.9	2.5	2.2
Tajikistan				
Yes	76.8	69.7	71.8	69.2
No	17.9	26.2	25.3	26.9
Don't know	5.3	4.0	2.9	3.8
Uzbekistan				
Yes	94.1	90.4	93.2	90.6
No	4.5	8.0	5.1	8.3
Don't know	1.4	1.6	1.7	1.0

Some of the **rural population** know less about the vaccines developed in the world than the urban people in almost all countries: in Georgia - 2.8% (in the city - 1.9%), Kazakhstan - 45.5% (in the city - 34.1%) , Mongolia - 17.4% (in the city - 15.2%), in Pakistan - 75.7% (in the city - 67%), Tajikistan - 24.3% (in the city - 16.7%), Uzbekistan 5,5% (in the city - 6.7%). In the Kyrgyz Republic, an equal number of urban and rural residents are not aware of coronavirus vaccines - 21% each (Table 7).

Table 7. Currently, vaccines against coronavirus are being developed in the world. Have you ever heard of a coronavirus vaccine before today? (%, urban and rural population)

Answer options	*Urban*	*Rural*
Georgia		
Yes	97.4	93.1
No	1.9	2.8
Don't know	0.7	4.2
Kazakhstan		
Yes	54.0	47.5
No	34.1	45.5
Don't know	12.0	7.0
Kyrgyz Republic		
Yes	71.2	71.2
No	21.9	21.7
Don't know	6.9	7.1
Mongolia		
Yes	78.4	77.5
No	15.2	17.4
Don't know	6.4	5.1
Pakistan		
Yes	31.8	20.9
No	67.0	75.7
Don't know	1.1	3.4
Tajikistan		
Yes	79.2	71.2
No	16.7	24.3
Don't know	4.2	4.5
Uzbekistan		
Yes	92.0	92.8
No	6.7	5.5
Don't know	1.3	1.7

Men are less aware of the vaccines than women in Kazakhstan (43.3%), Uzbekistan (7.7%), Georgia (3.7%). **Women are less aware** in Pakistan (81.5%), Tajikistan (24.0%), Kyrgyz Republic (23.0%), Mongolia (16.6%) (Table 8).

Table 8. Currently, vaccines against coronavirus are being developed in the world. Have you ever heard of a coronavirus vaccine before today? (%, gender of respondents)

Answer options	*Male*	*Female*
Georgia		
Yes	94.0	96.8
No	3.7	1.1
Don't know	2.4	2.0
Kazakhstan		
Yes	48.8	53.6
No	43.3	34.7
Don't know	7.9	11.7
Kyrgyz Republic		
Yes	72.9	69.3
No	20.7	23.0
Don't know	6.5	7.6
Mongolia		
Yes	78.1	78.1
No	15.2	16.6
Don't know	6.7	5.3
Pakistan		
Yes	37.6	15.1
No	61.1	81.5
Don't know	1.3	3.4
Tajikistan		
Yes	74.4	72.2
No	20.6	24.0
Don't know	5.0	3.8
Uzbekistan		
Yes	90.5	94.3
No	7.7	4.5
Don't know	1.8	1.2

Sources of information about the vaccine

The main sources of information about the vaccine in the surveyed countries are presented as follows:

- ✓ in Georgia: television (79.7%), social networks (49.7%) and Internet sites (22.2%);
- ✓ in Kazakhstan: television (53.3%), social networks (45.3%) and Internet sites (37.2%);
- ✓ in the Kyrgyz Republic: television (52.7%), Internet sites (50.8%) and social networks (42.4%);
- ✓ in Mongolia: television (85.4%), Internet sites (46.9%), social networks (39.3%) and information from relatives and friends (35.9%);
- ✓ in Pakistan: television (91.8%), information from relatives and friends (54.5%), social networks (38.1%), newspapers and magazines (33.1%),
- ✓ in Tajikistan: television (78.9%), Internet sites (46.9%), information from relatives and friends (37.9%), social networks (24.7%);
- ✓ in Uzbekistan: information from relatives and friends (52.4%), television (47.2%), Internet sites (44.4%) and social networks (43.7%).

As important information source – medical staff – were mentioned by 20.7% respondents from Tajikistan, 18.3% - from Pakistan, 13.5% - from the Kyrgyz Republic, 11.1% - from Kazakhstan, 8.2% - from Uzbekistan, 6.6% - from Georgia, 6.4% - from Mongolia. On average for the entire sample (7000 respondents) 11.1% of respondents trust doctors (Table 9).

Table 9. Where do you most often get information about coronavirus vaccines? (%)

(this question is answered only by those respondents who have ever heard of the coronavirus vaccine).

Answer options	***Georgia***	***Kazakhstan***	***Kyrgyz Republic***	***Mongolia***	***Pakistan***	***Tajikistan***	***Uzbekistan***	***7 COUNTRIES***
Respondents who have ever heard of a coronavirus vaccine	***N=955***	***N=514***	***N=715***	***N=781***	***N=257***	***N=733***	***N=924***	***N= 4876***
From TV programs	79.7	53.3	52.7	85.4	91.8	78.9	47.2	68.2
From social networks	49.7	45.3	42.4	39.3	38.1	24.7	43.7	41.0
From Internet web-sites	22.2	37.2	50.8	46.9	29.2	46.9	44.4	40.2
From other people, relatives, friends, acquaintances, or work colleagues	15.7	27.2	22.5	35.9	54.5	37.9	52.4	33.4
From medical staff - doctors, nurses, etc.	6.6	11.1	13.5	6.4	18.3	20.7	8.2	11.1
From newspapers, magazines	2.5	9.1	4.8	8.3	33.1	10.9	0.2	6.9
From radio programs	0.6	7.6	4.1	12.7	7.8	12.0	0.9	5.9
Don't know	0.3	1.4	1.1	-	-	0.3	0.4	0.5

**The amount is not equal to 100%, because respondents could choose several answer options.*

Safety Assessment of Developed Vaccines

One of the significant issues that worries and affects the readiness of the population to vaccinate is the safety of the developed vaccines.

Table 10. Do you think the vaccines developed in the world are safe? (%)

	Georgia	***Kazakhstan***	***Kyrgyz Republic***	***Mongolia***	***Pakistan***	***Tajikistan***	***Uzbekistan***	***7 COUNTRIES***
Yes, all vaccines that have been tested by the countries' responsible agencies and are approved as safe	18.3	10.1	15.3	35.2	30.8	33.9	28.2	24.5
Safety depends on the country of origin of the vaccine	18.7	20.4	35.3	25.4	13.7	24.8	11.9	21.5
It will still take quite a long time until vaccines are tested enough to be really regarded as safe	50.5	35.7	30.0	32.6	21.9	27.0	44.4	34.6
No, you can't trust vaccines	12.5	32.9	17.2	5.1	33.6	14.3	9.5	17.9
Don't know	-	0.9	1.9	1.7	-	-	6.0	1.5
Total	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***

About a third of respondents from Mongolia (35.2%), Tajikistan (33.9%), and Pakistan (30.8%) believe that all vaccines that have been tested by the responsible authorities of the country are safe. 35.3% of respondents from the Kyrgyz Republic believe that vaccine safety depends on the country of origin of the vaccine.

Table 11. Do you think the vaccines developed in the world are safe?
(%, urban and rural population)

Answer options	*Urban*	*Rural*
Georgia		
Yes, all vaccines that have been tested by the countries' responsible agencies and are approved as safe	20.6	15.2
Safety depends on the country of origin of the vaccine	14.8	23.8
It will still take quite a long time until vaccines are tested enough to be really regarded as safe	52.4	48.0
No, you can't trust vaccines	12.2	12.9
Don't know	20.6	15.2
Kazakhstan		
Yes, all vaccines that have been tested by the countries' responsible agencies and are approved as safe	11.6	7.8
Safety depends on the country of origin of the vaccine	21.1	19.3
It will still take quite a long time until vaccines are tested enough to be really regarded as safe	40.5	28.4
No, you can't trust vaccines	26.1	43.2
Don't know	0.7	1.3
Kyrgyz Republic		
Yes, all vaccines that have been tested by the countries' responsible agencies and are approved as safe	14.2	16.4
Safety depends on the country of origin of the vaccine	42.0	28.4
It will still take quite a long time until vaccines are tested enough to be really regarded as safe	26.2	33.9
No, you can't trust vaccines	16.2	18.9
Don't know	1.4	2.4
Mongolia		
Yes, all vaccines that have been tested by the countries' responsible agencies and are approved as safe	36.0	33.4
Safety depends on the country of origin of the vaccine	26.3	23.5
It will still take quite a long time until vaccines are tested enough to be really regarded as safe	31.9	34.1
No, you can't trust vaccines	4.6	6.1
Don't know	1.2	2.9
Pakistan		
Yes, all vaccines that have been tested by the countries' responsible agencies and are approved as safe	28.4	32.7
Safety depends on the country of origin of the vaccine	11.1	15.7
It will still take quite a long time until vaccines are tested enough to be really regarded as safe	20.9	22.7
No, you can't trust vaccines	39.5	28.9
Don't know	-	-
Tajikistan		
Yes, all vaccines that have been tested by the countries' responsible agencies and are approved as safe	30.7	35.1
Safety depends on the country of origin of the vaccine	22.7	25.5
It will still take quite a long time until vaccines are tested enough to be really regarded as safe	29.5	26.1
No, you can't trust vaccines	17.0	13.3
Don't know	-	-
Uzbekistan		
Yes, all vaccines that have been tested by the countries' responsible agencies and are approved as safe	24.6	32.2
Safety depends on the country of origin of the vaccine	11.6	12.2
It will still take quite a long time until vaccines are tested enough to be really regarded as safe	47.6	40.8
No, you can't trust vaccines	10.9	8.0
Don't know	5.3	6.7

"It will take a long time before vaccines are tested enough to be considered safe." This is the opinion of 50.5% of respondents from Georgia, 44.4% from Uzbekistan, and 35.7% from Kazakhstan.

In all countries, some respondents do not trust vaccines. 33.6% of Pakistani respondents, 32.9% of Kazakhstani respondents, 17.2% of Kyrgyzstanis surveyed, 14.3% of Tajikistanis asked, 12.5% of surveyed Georgian residents, 9.5% of Uzbekistani respondents, and 5.1% of Mongolians asked hold this view.
Overall, 17.9% of respondents from the seven project countries believe that global vaccines cannot be trusted (Table 10).

In three countries - Georgia, Kyrgyz Republic, Mongolia - approximately the same number of urban and rural residents do not trust vaccines.
In Kazakhstan, 43.2% of rural residents do not trust (urban - 26.1%). In Pakistan, Tajikistan and Uzbekistan, more urban than rural residents expressed a lack of confidence in vaccines (Table 11).

In all countries except Pakistan, approximately equal numbers of men and women do not trust vaccines. In Pakistan, women are more distrustful (41%) than men - 25.3% (Table 12).

Table 12. Do you think the vaccines developed in the world are safe? (%, gender of respondents)

Answer options	*Male*	*Female*
Georgia		
Yes, all vaccines that have been tested by the countries' responsible agencies and are approved as safe	21.2	15.8
Safety depends on the country of origin of the vaccine	19.4	18.1
It will still take quite a long time until vaccines are tested enough to be really regarded as safe	45.8	54.6
No, you can't trust vaccines	13.6	11.5
Don't know	-	-
Kazakhstan		
Yes, all vaccines that have been tested by the countries' responsible agencies and are approved as safe	10.2	10.1
Safety depends on the country of origin of the vaccine	21.2	19.7
It will still take quite a long time until vaccines are tested enough to be really regarded as safe	36.0	35.5
No, you can't trust vaccines	32.5	33.3
Don't know	0.2	1.5
Kyrgyz Republic		
Yes, all vaccines that have been tested by the countries' responsible agencies and are approved as safe	16.7	13.7
Safety depends on the country of origin of the vaccine	35.1	35.5
It will still take quite a long time until vaccines are tested enough to be really regarded as safe	30.6	29.4
No, you can't trust vaccines	15.6	19.0
Don't know	1.9	1.9
Mongolia		
Yes, all vaccines that have been tested by the countries' responsible agencies and are approved as safe	35.2	35.2
Safety depends on the country of origin of the vaccine	27.7	23.1
It will still take quite a long time until vaccines are tested enough to be really regarded as safe	29.4	35.8
No, you can't trust vaccines	5.5	4.7
Don't know	2.2	1.2
Pakistan		
Yes, all vaccines that have been tested by the countries' responsible agencies and are approved as safe	33.8	28.2
Safety depends on the country of origin of the vaccine	15.7	11.9
It will still take quite a long time until vaccines are tested enough to be really regarded as safe	25.3	18.9
No, you can't trust vaccines	25.3	41.0
Don't know	-	-
Tajikistan		
Yes, all vaccines that have been tested by the countries' responsible agencies and are approved as safe	32.3	35.5
Safety depends on the country of origin of the vaccine	24.4	25.2
It will still take quite a long time until vaccines are tested enough to be really regarded as safe	27.8	26.2
No, you can't trust vaccines	15.5	13.1
Don't know	-	-
Uzbekistan		
Yes, all vaccines that have been tested by the countries' responsible agencies and are approved as safe	29.6	26.9
Safety depends on the country of origin of the vaccine	11.5	12.3
It will still take quite a long time until vaccines are tested enough to be really regarded as safe	43.5	45.3
No, you can't trust vaccines	8.7	10.3
Don't know	6.7	5.3

Attitude towards getting free coronavirus vaccine

Due to the fact that vaccination of the population is the main way to combat the spread of COVID-19 and its consequences, nations are faced with the issue of universal vaccination and conditions for its implementation. According to the survey, the majority of respondents in the studied countries agree to be vaccinated with a free vaccination against the coronavirus:

- ✓ most of the respondents in Mongolia would have been vaccinated (**82.5%,** of which 62.2% would definitely have done it); those would not have done so amount to 12.4%, and 5.1% found it difficult to answer;
- ✓ **76.3%** of survey participants from Tajikistan would also agree to be vaccinated (of which 55.4% would definitely do it), while 18.0% of respondents said no and 5.3% found it difficult to answer;
- ✓ **66.6%** of the respondents in Uzbekistan would get vaccinated (and 38.8% would definitely do it), while 24.7% would refuse and 8.5% found the question difficult;
- ✓ more than half of the respondents from Pakistan (**52.6%**) would have been vaccinated, but 43.4% would not (of which 34.2% were definite). An additional 4.0% were undecided;
- ✓ **50.2%** of respondents in Georgia have a positive attitude towards the possibility of getting vaccinated, 35.0% respond negatively (of which 25.8% are strongly opposed), and 14.8% found it difficult to answer;
- ✓ almost half of the survey participants from Kyrgyzstan (**49.0%**) would have been vaccinated, while 31.4% would not, and 19.3% were undecided on this issue.
- ✓ **22.7%** of Kazakhstani respondents wanted to be vaccinated with the vaccine, while the majority of respondents (55.5%, of which 27.9% are certain) would not agree to get a vaccine against coronavirus, and 21.6% found it difficult to answer this question.

Those who wouldn't get a vaccine include: 55.5% of Kazakhstanis participating in the survey, 43.4% of Pakistanis, 31.4% of Kyrgyzstanis, 24.7% of Uzbekistanis, 35% of respondents from Georgia, 18% of Tajikistanis, and 12.4% of Mongolian respondents.

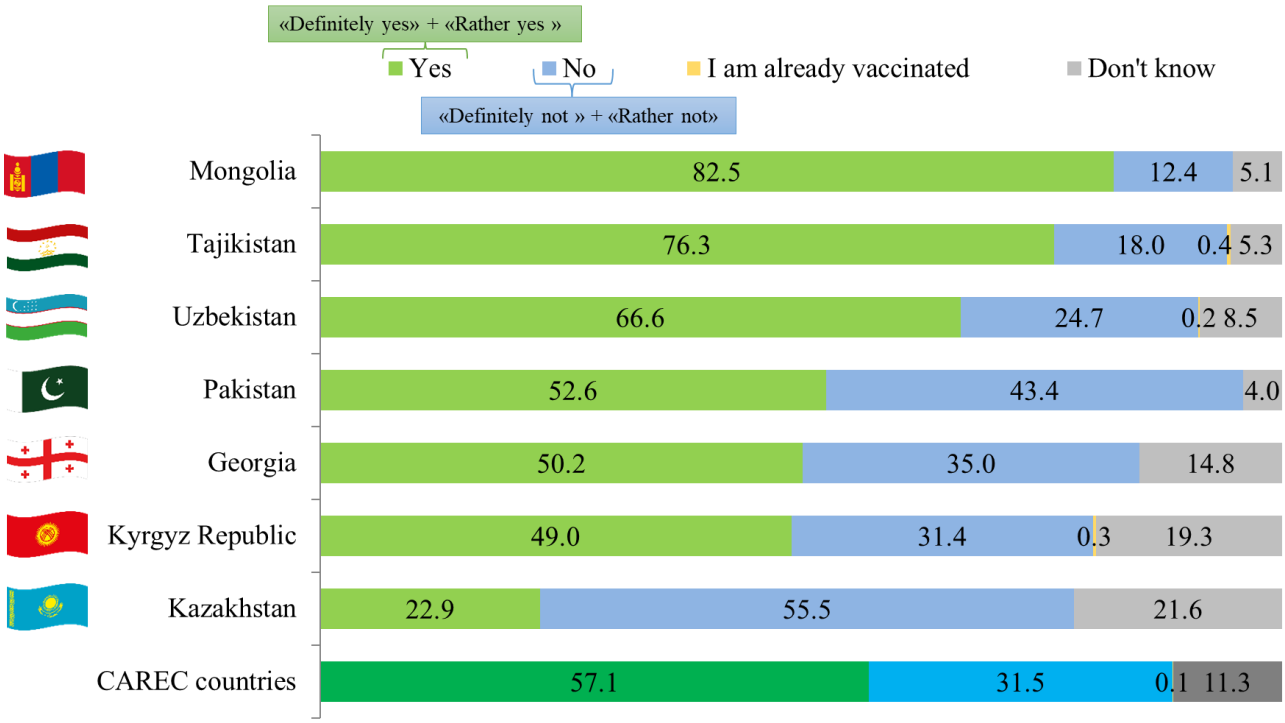
Some respondents have not yet made a decision on vaccination: 21.6% of respondents from Kazakhstan, 19.3% from Kyrgyzstan, 14.8% from Georgia, 8.5% from Uzbekistan, 5.3% from Tajikistan, 5.1% from Mongolia, and 4% from Pakistan.

Overall, for the entire sample (7,000 respondents), 57.1% would be vaccinated against coronavirus, provided it was a free vaccine and recognized by scientists as safe. 31.5% would not get vaccinated. Meanwhile, 11.3% find it difficult to choose an answer (Table 13, Diagram 3).

Table 13. If in your country coronavirus vaccination will be for FREE and your country's scientists recognize the vaccine as safe, would you and your family members get vaccinated? (%)

Answer options	*Georgia*	*Kazakhstan*	*Kyrgyz Republic*	*Mongolia*	*Pakistan*	*Tajikistan*	*Uzbekistan*	*7 COUNTRIES*
Definitely	26.6	8.1	23.0	62.2	32.6	55.4	38.8	35.2
Rather yes	23.6	14.8	26.0	20.3	20.0	20.9	27.8	21.9
Total percentage	**50.2**	**22.9**	**49**	**82.5**	**52.6**	**76.3**	**66.6**	**57.1**
Rather no	9.2	27.6	14.6	5.7	9.2	9.6	24.7	14.4
Definitely not	25.8	27.9	16.8	6.7	34.2	8.4	-	17.1
Total percentage	**35**	**55.5**	**31.4**	**12.4**	**43.4**	**18**	**24.7**	**31.5**
I am already vaccinated	-	-	0.3	-	-	0.4	0.2	0.1
Don't know	14.8	21.6	19.3	5.1	4.0	5.3	8.5	11.3
Total	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***

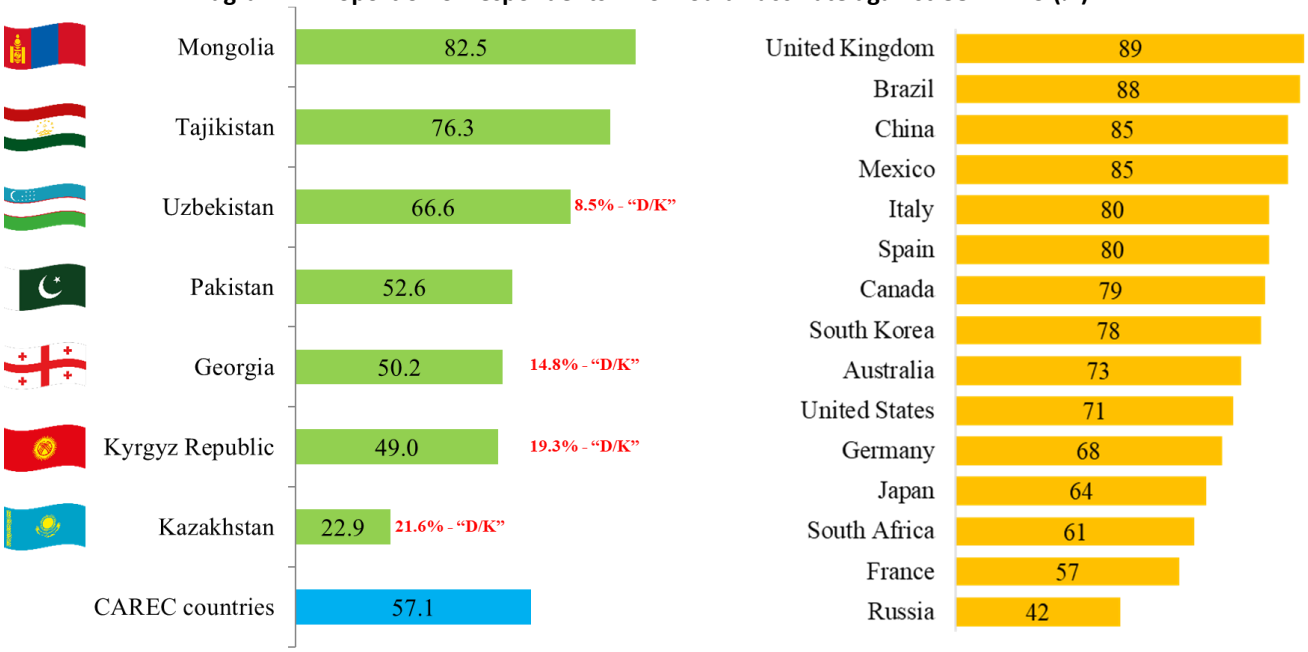
Diagram 3. If in your country coronavirus vaccination will be for FREE and your country's scientists recognize the vaccine as safe, would you and your family members get vaccinated? (%)



The diagram shows a comparative analysis of the results of a survey in 7 countries and an IPSOS survey conducted at about the same time in 15 countries of the world. In the CAREC countries, the highest rate of desire to be vaccinated against coronavirus is found among respondents from Mongolia at 82.5%, while the lowest rate is found among respondents from Kazakhstan at 22.7%.

In the IPSOS survey, 89% of UK respondents show the highest willingness to vaccinate and 42% of Russians show the lowest willingness to vaccinate (Diagram 4).

Diagram 4. Proportion of respondents who would vaccinate against COVID-19 (%)[39]



[39] Comparison with the results of a sociological study conducted by the international research company Ipsos in conjunction with the World Economic Forum on January 28-31, 2021 in 15 countries of the world using the Global Advisor online platform. Sample: 1000+ resp. in 12 countries, 500+ resp. in Russia, Mexico and South Africa.
Source: *https://www.ipsos.com/en-si/global-attitudes-covid-19-vaccine-january-2021*

By urban/rural

Table 14. If in your country a vaccine against coronavirus will be vaccinated for FREE and scientists have found it safe, would you vaccinate yourself and your family members? (%, urban and rural population)

Answer options	*Urban*	*Rural*
Georgia		
Definitely	28.0	24.7
Rather yes	23.8	23.3
Rather no	8.5	10.2
Definitely not	27.7	23.3
I am already vaccinated	-	-
Don't know	12.0	18.5
Kazakhstan		
Definitely	10.6	4.3
Rather yes	14.8	14.8
Rather no	27.7	27.4
Definitely not	24.6	32.9
I am already vaccinated	-	-
Don't know	22.3	20.6
Kyrgyz Republic		
Definitely	20.9	25.2
Rather yes	25.6	26.4
Rather no	16.6	12.6
Definitely not	16.8	16.8
I am already vaccinated	0.2	0.4
Don't know	19.9	18.7
Mongolia		
Definitely	62.7	61.1
Rather yes	21.6	17.4
Rather no	3.9	9.6
Definitely not	6.7	6.8
I am already vaccinated	-	-
Don't know	5.1	5.1
Pakistan		
Definitely	31.8	33.2
Rather yes	17.3	22.1
Rather no	8.2	10.0
Definitely not	38.0	31.3
I am already vaccinated	-	-
Don't know	4.8	3.4
Tajikistan		
Definitely	58.0	54.5
Rather yes	21.2	20.8
Rather no	3.0	12.0
Definitely not	13.3	6.7
I am already vaccinated	0.4	0.4
Don't know	4.2	5.7
Uzbekistan		
Definitely	38.1	39.6
Rather yes	28.4	27.2
Rather no	25.9	23.4
Definitely not	-	-
I am already vaccinated	0.2	0.2
Don't know	7.4	9.7

Urban residents more than rural residents refuse to receive vaccines in Pakistan (46.2%), Georgia (36.2%), Kyrgyz Republic (33.4%) and Uzbekistan (25.9%).
Among rural residents, more people refuse vaccination in Kazakhstan (60.3%), Tajikistan (18.7%), Mongolia (17.4%) (Table 14).

By gender

Table 15. If in your country a vaccine against coronavirus will be vaccinated for FREE and scientists have found it safe, would you vaccinate yourself and your family members?
(%, gender of respondents)

Answer options	*Male*	*Female*
Georgia		
Definitely, I would	28.5	25.0
Probably, I would	22.5	24.6
Probably, I wouldn't	9.5	8.9
Definitely I wouldn't	27.4	24.4
I have already received the coronavirus vaccine	-	-
Not sure	12.1	17.1
Kazakhstan		
Definitely, I would	7.3	8.8
Probably, I would	14.8	14.8
Probably, I wouldn't	27.4	27.8
Definitely I wouldn't	31.1	25.2
I have already received the coronavirus vaccine	-	-
Not sure	19.4	23.4
Kyrgyz Republic		
Definitely, I would	22.6	23.5
Probably, I would	26.0	26.0
Probably, I wouldn't	17.6	11.2
Definitely I wouldn't	16.5	17.1
I have already received the coronavirus vaccine	0.4	0.2
Not sure	16.9	22.0
Mongolia		
Definitely, I would	63.0	61.5
Probably, I would	17.4	23.1
Probably, I wouldn't	5.5	5.9
Definitely I wouldn't	7.9	5.5
I have already received the coronavirus vaccine	-	-
Not sure	6.3	4.0
Pakistan		
Definitely, I would	39.7	26.3
Probably, I would	23.4	17.0
Probably, I wouldn't	10.0	8.5
Definitely I wouldn't	23.6	43.7
I have already received the coronavirus vaccine	-	-
Not sure	3.4	4.5
Tajikistan		
Definitely, I would	54.0	56.9
Probably, I would	21.2	20.6
Probably, I wouldn't	8.9	10.3
Definitely I wouldn't	10.1	6.7
I have already received the coronavirus vaccine	0.2	0.6
Not sure	5.6	5.0
Uzbekistan		
Definitely, I would	39.5	38.1
Probably, I would	29.8	25.9
Probably, I wouldn't	24.5	24.9
Definitely I wouldn't	-	-
I have already received the coronavirus vaccine	-	0.4
Not sure	6.3	10.7

In Pakistan, more women than men would prefer to refuse vaccination - 52.2% (men - 33.6%).
In Kazakhstan (58.5%), Georgia (36.9%), Kyrgyz Republic (34.1%), Tajikistan (19.0%), Mongolia (13.4%), men refuse vaccination.
In Uzbekistan, there is no difference between the responses of men and women (Table 15).

Attitude of the population of countries to paid vaccination against COVID-19

Provided that the vaccination will not be mandatory and will be for pay for more than US$ 5, **would agree to be vaccinated**:

- ✓ the majority of respondents from Mongolia (**72.2%),** will refuse - 16.3%, 11.5% were undecided;
- ✓ more than half of the respondents in Uzbekistan (**52.7%)** will also accept the offer, 42.0% will refuse, 5.0% not sure.

Refuse to be vaccinated:

- ✓ the majority of respondents from Pakistan (**67.0%)** will accept the offer - 26.3%, 4.7% found it difficult to answer;
- ✓ **62.5%** of respondents from Kazakhstan, while 14.4% will agree to be vaccinated, at the same time 23.1% have not decided yet;
- ✓ **42.1%** of survey participants from the Kyrgyz Republic, 29.1% agree, undecided - 27.7%.

Opinions of respondents from Tajikistan and Georgia **are divided**:

- ✓ Tajikistan: 44.7% will agree to be vaccinated, 43.5% will refuse. 10.5% were undecided about their choice.
- ✓ Georgia: 38.1% will agree, 39.4% will not, while 22.5% found it difficult to answer (Table 16).

Provided optional vaccination fee (5 US$) 39.6% of respondents from all 7 countries (7000 respondents) will receive the vaccine. Most - 44.7% of respondents will refuse vaccination. 15.0% of respondents at the time of the survey found it difficult to answer.

Table 16. If you have to pay more than $ 5 for the COVID-19 (coronavirus) vaccine and vaccination is not mandatory, will you receive the vaccine or refuse it? (%)

	Georgia	*Kazakhstan*	*Kyrgyz Republic*	*Mongolia*	*Pakistan*	*Tajikistan*	*Uzbekistan*	7 COUNTRIES
I will receive the vaccine	38.1	14.4	29.1	72.2	26.3	44.7	52.7	39.6
I will refuse the vaccine	39.4	62.5	42.1	16.3	67.0	43.5	42.0	44.7
I have already received the coronavirus vaccine	-	-	1.1	-	2.0	1.3	0.3	0.7
Not sure	22.5	23.1	27.7	11.5	4.7	10.5	5.0	15.0
Total	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***

With paid and optional vaccination, the number of applicants will decrease in all countries by 17.5%. The highest rate of decline (-31.6%) is among Tajikistanis, the lowest among Kazakhstanis (-8.5%) (Table 17).

Table 17. Percentage of respondents who want to be vaccinated for fee and for free (%)

	Wishing to be vaccinated for free, %	Wishing to be vaccinated for fee, %	The decrease in the number of those wishing to be vaccinated with a paid vaccine
Georgia	50.2	38.1	-12.1
Kazakhstan	22.9	14.4	-8.5
Kyrgyz Republic	49.0	29.1	-19.9
Mongolia	82.5	72.2	-10.3
Pakistan	52.6	26.3	-26.3
Tajikistan	76.3	44.7	-31.6
Uzbekistan	66.6	52.7	-13.9
7 countries	57.1	39.6	-17.5

The main reasons for participating in vaccination against COVID-19

The top 3 reasons for consent to vaccination of respondents from seven countries are as follows:

- ✓ In Georgia: **protection of the family** (75.9%), protection of oneself (69.7%), protection of others, society (53.6%);
- ✓ In Kazakhstan: **protection of the family** (68.6%), protection of others, society (37.1%), protection of oneself (31.4%);
- ✓ In the Kyrgyz Republic: **protection of the family** (73.6%), protection of others, society (55.6%), protection of oneself (23.5%) and avoiding a serious coronavirus disease (21.5%);
- ✓ In Mongolia: **protection of the family** (86.1%), protection of oneself (64.5%), protection of others, society (48.6%) and avoiding a serious coronavirus disease (21.3%);
- ✓ In Pakistan: **protection of the family** (88.2%), protection of oneself (79.8%), protection of others, society (56.5%) and avoiding serious coronavirus disease (29.3%);
- ✓ In Tajikistan: **protection of the family** (80.7%), protection of others, society (63.3%), protection of oneself (49.0%);
- ✓ In Uzbekistan: **protection of the family** (72.8%), protection of others, society (42.2%), a sense of security in the society of other people (24.9%) and protection of oneself (22.3%).

Comparing with the results of a similar survey conducted in the United States[40], the following should be noted. In the United States, the main reasons for consenting to vaccination are taking care of oneself (45.26%), family (43.06%), as well as leveling the possibility of a severe course of the disease (40.16%). In addition, more than 30% of Americans want to feel safe in this way, protect others, and return life to normal (Table 18)

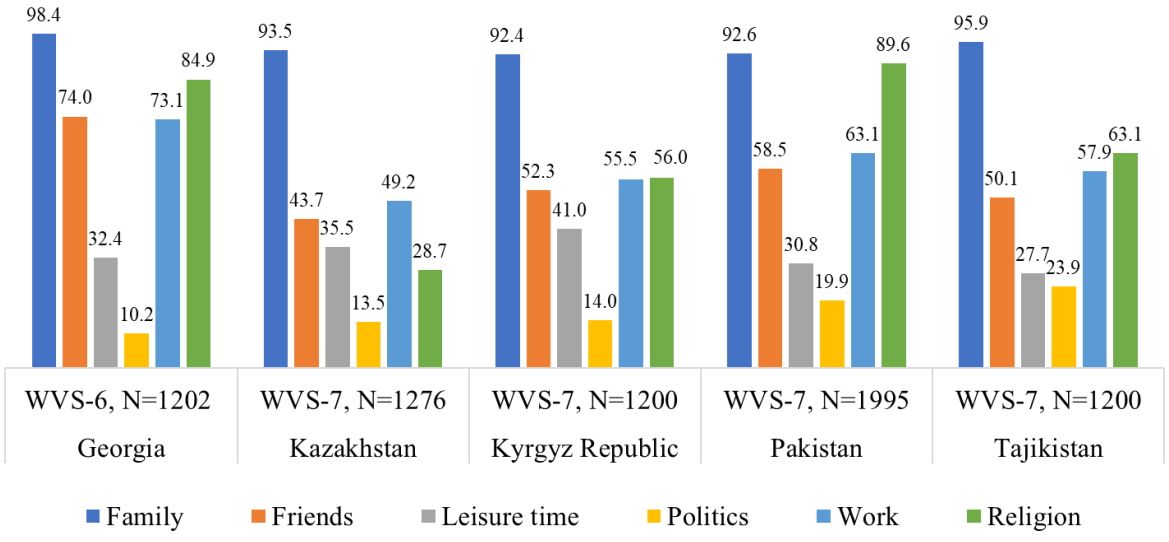
[40] In comparison with a study conducted in 50 states and the District of Columbia of the United States by the National Opinion Research Center (NORC) at the University of Chicago in May 2020. The sample consists of 1,056 respondents. This question was answered only by respondents who plan to get vaccinated against coronavirus - 515 respondents (48.77%) link??

Table 18. What reasons WILL MAKE YOU / MADE YOU GO FOR THE CORONA VIRUS (COVID-19) VACCINATION? (%)
(this question is answered only by those respondents who will make / or received a vaccine against coronavirus (COVID-19))

Answer options	***USA***	***Georgia***	***Kazakhstan***	***Kyrgyz Republic***	***Mongolia***	***Pakistan***	***Tajikistan***	***Uzbekistan***
Respondents who will receive / or received a vaccine against coronavirus (COVID-19)	***N=515***	***N=502***	***N=229***	***N=493***	***N=825***	***N=526***	***N=767***	***N=668***
I want/wanted to protect my family	43.06	75.9	68.6	73.6	86.1	88.2	80.7	72.8
I want/wanted to protect my community	37.85	53.6	37.1	55.6	48.6	56.5	63.3	42.2
I want / wanted to protect myself	45.26	69.7	31.4	23.5	64.5	79.8	49.0	22.3
It will make me feel safe in the company of other people	39.65	14.7	18.3	16.0	7.3	11.6	7.9	24.9
This is the best way to avoid a serious coronavirus disease	40.16	10.4	15.7	21.5	21.3	29.3	16.4	15.6
We will not return to normal until most people are vaccinated.	34.88	9.4	10.0	11.4	7.3	7.8	9.2	15.1
I have a chronic illness like asthma or diabetes, so it is important for me to get the COVID-19 coronavirus vaccine	16.21	2.2	3.5	6.9	4.7	4.2	3.9	1.0
My doctor recommends vaccination	22.25	2.6	1.7	4.3	1.8	7.6	2.0	2.2
I am/was obligated (at work/at the place of study/etc.)	-	1.4	1.3	2.4	3.3	0.4	0.7	1.5
Don't know	-	-	3.5	-	-	0.2	-	-

** The amount is not equal to 100%, because respondents could choose more than one answer.*

Diagram 5. Value attitudes: choosing the "very important" option, WVS-7 (2017-2020), %[41]



[41] Source: World Values Survey Official page// https://www.worldvaluessurvey.org/wvs.jsp

Respondents from all countries participating in the survey prioritized family protection from the coronavirus as their main reason for vaccination. The institution of the family is an important value for the countries participating in the project. According to the World Values Survey, a global sociological study of the values of the family is an important value for all respondents - survey participants, more important than work, friends, religion, politics, leisure time (Diagram 5).

Main reasons for refusing vaccination against COVID-19

Table 19. Which of the following are reasons you WOULD NOT GET /you DID NOT GET a coronavirus vaccination? (%) *(this question is answered only by those respondents who will not / have not made a vaccine against coronavirus (COVID-19))*

Answer options	***USA***	***Georgia***	***Kazakhstan***	***Kyrgyz Republic***	***Mongolia***	***Pakistan***	***Tajikistan***	***Uzbekistan***
respondents who will not / have not made a vaccine against coronavirus (COVID-19)	***N=208***	***N=350***	***N=555***	***N=314***	***N=124***	***N=434***	***N=180***	***N=247***
I do not believe that a vaccine will effectively protect against disease.	5.96	28.3	44.1	37.3	16.9	27.9	30.0	23.9
I am concerned about side effects from the vaccine	13.79	26.6	38.4	49.7	53.2	50.7	38.3	28.7
Vaccines are developed to hasty and have not been sufficiently tested	-	29.1	25.8	33.4	41.1	10.6	19.4	44.5
Natural immunity is better than vaccine-induced immunity	-	25.1	14.4	30.3	19.4	30.6	29.4	10.5
I'm not concerned about getting seriously ill from the coronavirus	6.12	2.3	5.8	9.9	2.4	47.9	52.2	34.0
I'm allergic to vaccines	0.90	5.1	4.1	4.5	7.3	16.6	20.6	4.5
COVID-19 (coronavirus) is not as serious as some people say	4.66	1.7	2.9	3.8	3.2	49.5	26.7	2.8
My religious beliefs don't allow vaccination	-	1.1	2.7	6.4	-	7.8	3.9	0.8
I have already been ill and have antibodies, and don't think I can get sick now	-	2.3	2.3	4.1	-	7.4	3.3	0.8
I won't/didn't have time to get vaccinated	0.48	-	1.4	3.2	0.8	11.1	12.2	0.4
There is no vaccination possibility close to where I live	-	1.1	1.1	1.6	-	20.7	11.7	-
Many people died after vaccination	-	-	0.2	-	-	-	-	-
I am against vaccination	-	-	0.2	-	-	-	-	-
COVID-19 doesn't exist, there is no point in getting vaccinated	-	-	0.2	-	-	-	-	-
I do not trust	-	2.0	-	-	-	-	-	-
I'm afraid of injections	2.01	0.6	-	-	-	-	-	-
I have another disease, there are serious contraindications	-	0.3	-	-	-	-	-	-
I have no desire	-	1.1	-	-	-	-	-	-
I don't need it, I'm healthy	-	2.3	-	-	-	-	-	-
If the priest / spiritual mentor does not allow	-	0.3	-	-	-	-	-	-
I'm afraid of getting the coronavirus from the vaccine	8.36	-	-	-	-	-	-	-
Don't know	-	-	9.5	-	21.8	-	-	-

** The amount is not equal to 100%, because respondents could choose several answer options.*

Top 3 reasons for refusing vaccination by country are as follows:

- ✓ in Georgia: haste and insufficient testing of the vaccine (29.1%), lack of confidence in its effectiveness (28.3%), **side effects** (26.6%) and belief that natural immunity is better (25.1%)
- ✓ in Kazakhstan: distrust of its effectiveness (44.1%), **side effects** (38.4%), haste and insufficient testing of the vaccine (25.8%);
- ✓ in the Kyrgyz Republic: **side effects** (49.7%), mistrust of its effectiveness (37.3%), haste and lack of vaccine testing (33.4%) and belief that natural immunity is better (30.3%) ;

- ✓ in Mongolia: **side effects** (53.2%), haste and insufficient testing of the vaccine (41.1%) and the belief that natural immunity is better (19.4%);
- ✓ in Pakistan: **side effects** (50.7%), disbelief in the seriousness of the virus (49.5%), lack of fear of contracting coronavirus (47.9%) and belief that natural immunity is better (30.6%);
- ✓ in Tajikistan: lack of fear of contracting coronavirus (52.2%), **side effects** (38.3%), distrust of its effectiveness (30.0%) and belief that natural immunity is better (29.4%);
- ✓ in Uzbekistan: haste and insufficient testing of the vaccine (44.5%), lack of fear of seriously contracting coronavirus (34.0%), **side effects** (28.7%).

In the United States, the main reasons for refusing to vaccinate[42] are: **side effects** (13.79%), fear of contracting the vaccine (8.36%) and lack of fear of getting seriously ill with coronavirus (6.12%) (Table 19).

Attitude towards mass vaccination

During the survey, respondents were asked about the need to vaccinate the entire population or only high-risk groups such as medical workers, doctors, teachers, salespeople, firefighters and police officers.
The majority of respondents from Tajikistan, Uzbekistan, Mongolia, Kyrgyzstan and Georgia supported the idea of universal vaccination:

- ✓ The majority of Tajikistani respondents **(76.6%)** believe that the entire population should be vaccinated. 19.0% thought only high-risk groups needed to be vaccinated;
- ✓ **68.6%** of the interviewed respondents from Uzbekistan are in solidarity with the majority of residents of Tajikistan, while 19.6% are in favor of risk groups;
- ✓ **62.4%** of survey participants from Mongolia believe that everyone should get vaccinated, while 27.2% advocate for only risk groups, and another 10.0% found it difficult to answer;
- ✓ half of the respondents in Kyrgyzstan were in favor of universal vaccination **(50.5%)**, for vaccination only in the high-risk group amounted to 19.9% and 28.0% were undecided about the answer;
- ✓ **38.8%** of respondents from Georgia supported vaccination of the entire population, while those advocating only risk groups came to 27.6% and 26.2% found it difficult to give an answer.

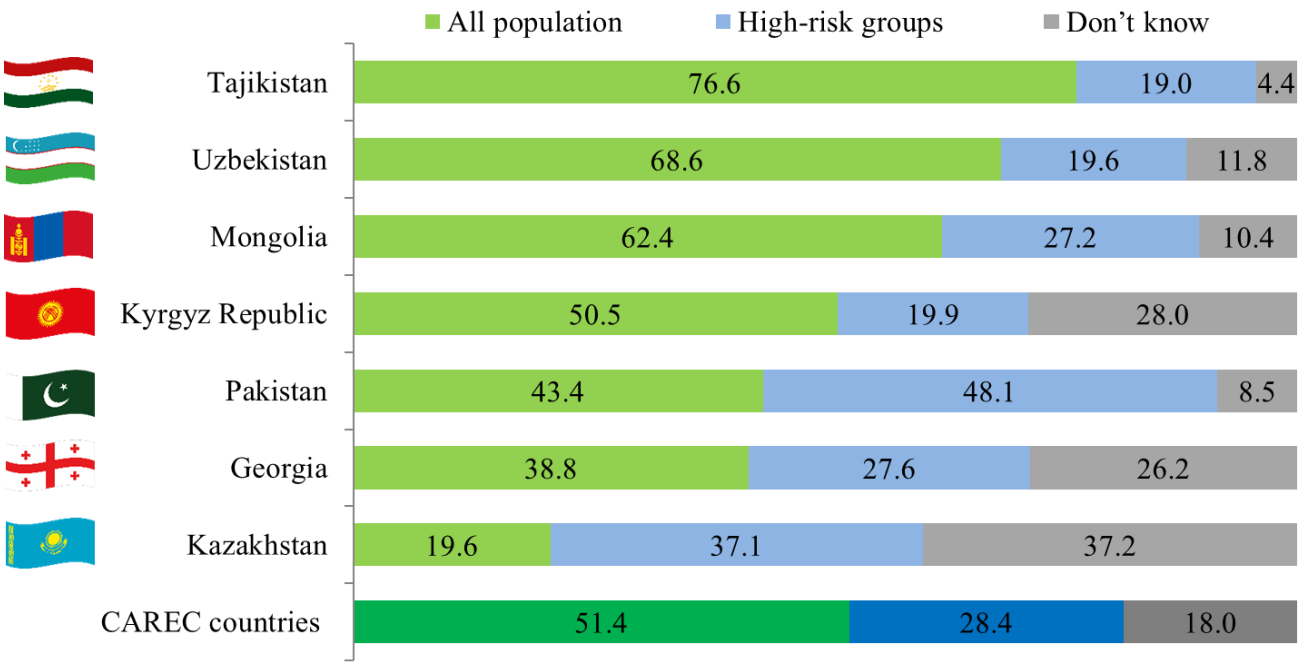
Meanwhile, most of the respondents in Pakistan and Kazakhstan spoke about the need to vaccinate only risk groups:

- ✓ the majority of respondents from Pakistan **(48.1%)** are in favor of getting the vaccine for high-risk groups, while 43.4% of the population support universal vaccination;
- ✓ **37.1%** of the polled Kazakhstanis expressed an opinion about the need to vaccinate only risk groups, while 19.6% supported the idea of vaccinating all citizens; at the same time, 37.2% found the question difficult to answer.

51.4% of respondents out of a total sample of 7000 respondents believe that mass vaccination of the population is necessary, while 28.4% of survey participants noted the need to immunize only high-risk groups, such as medical workers, doctors, teachers, vendors, and firefighters. 18.0% found it difficult to answer (Diagram 6).

[42] Compared to a study conducted in 50 states and the District of Columbia of the United States by the National Opinion Research Center (NORC) University of Chicago in May 2020. Sample - 1,056 respondents. This question was answered only by respondents planning not to get the coronavirus vaccine - 208 respondents (19.68%)

Diagram 6. Do you think it is necessary to vaccinate the entire population or only high-risk groups - medical workers, doctors, teachers, salespeople, fire and police officers, etc.? (%)



Attitudes towards containment in case of vaccines failure

During the pandemic, each of the countries introduced various measures to combat and prevent the spread of COVID-19. From the survey, the most supported and unsupported containment measures can be identified in the event that vaccination is not effective. Respondents were asked to evaluate nine measures.

According to respondents from **Georgia**:

Effective measures

- ✓ Permanent hand disinfection - 98.8%;
- ✓ The requirement that the people were at a distance of not less than 1.5 meters from each other. while at work. in a restaurant or in other similar places - 95.9%;
- ✓ Regular cleaning of the room with disinfectants - 95.1%;
- ✓ Requirement to wear masks when around other people outside the home - 94.4%;
- ✓ The requirement to check the body temperature before entering enterprises or places of mass gathering of people - 86.9%.
- ✓ Large-scale and rapid testing -81.7%.
- ✓ Closure of schools and kindergartens – 74.2%.
- ✓ Requirement to use technology for location and exposure to coronavirus -73.5%

Non-Effective Measures

- ✓ Return to total isolation with strict curfew - 57.6%;

More than 20% of respondents who noted the ineffectiveness of measures:

- ✓ Requirement to use technology for location and exposure to coronavirus -26.5%
- ✓ Closure of schools and kindergartens –25.8 %.

According to respondents from **Kazakhstan:**

Effective measures

- ✓ Permanent hand disinfection - 88.9%;
- ✓ Requirement to wear masks when around other people outside the home - 85.0%;
- ✓ The requirement to check the body temperature before entering enterprises or places of mass gathering of people - 80.1%;
- ✓ Regular cleaning of the room with disinfectants - 79.3%;
- ✓ The requirement that the people were at a distance of not less than 1.5 meters from each other. while at work. in a restaurant or in other similar places - 75.8%.
- ✓ Large-scale and rapid testing -71%
- ✓ Requirement to use technology for location and exposure to coronavirus -50.8%

Non-Effective measures

- ✓ Return to total isolation with strict curfew- 70.4%;
- ✓ Closure of schools and kindergartens - 62.4%;

More than 20% of respondents who noted the ineffectiveness of measures:

- ✓ Requirement to use technology for location and exposure to coronavirus - 49.2%;
- ✓ Large-scale and rapid testing - 29%.
- ✓ Regular cleaning of the room with disinfectants – 20.7%;

According to respondents from the **Kyrgyz Republic:**

Effective measures

- ✓ Permanent hand disinfection - 90.7%;
- ✓ Regular cleaning of the room with disinfectants - 86.7%;
- ✓ Requirement to wear masks when around other people outside the home - 85.6%;
- ✓ The requirement to check the body temperature before entering enterprises or places of mass gathering of people - 79.6%;
- ✓ The requirement that the people were at a distance of not less than 1.5 meters from each other. while at work. in a restaurant or in other similar places - 78.4%.
- ✓ Large-scale and rapid testing – 72.1
- ✓ Requirement to use technology for location and exposure to coronavirus -71.7%
- ✓ Closure of schools and kindergartens - 50.2%

Non-Effective measures

- ✓ Return to total isolation with strict curfew- 67.7%;

More than 20% of respondents who noted the ineffectiveness of measures:

- ✓ Closure of schools and kindergartens- 49.8%;
- ✓ Require to use technology for location and exposure to coronavirus - 28.3%;
- ✓ Large-scale and rapid testing - 27.9%.
- ✓ The requirement that the people were at a distance of not less than 1.5 meters from each other. while at work. in a restaurant or in other similar places – 21.6%.
- ✓ The requirement to check the body temperature before entering enterprises or places of mass gathering of people -20.4

According to respondents from **Mongolia:**

Effective measures	Non-Effective measures
✓ Permanent hand disinfection - 97.7%; ✓ Requirement to wear masks when around other people outside the home - 97.6%; ✓ Regular cleaning of the room with disinfectants - 97.5%; ✓ The requirement to check the body temperature before entering enterprises or places of mass gathering of people - 96.4%; ✓ The requirement that the people were at a distance of not less than 1.5 meters from each other. while at work. in a restaurant or in other similar places - 96.2%. ✓ Requirement to use technology for location and exposure to coronavirus -92.8%. ✓ Large-scale and rapid testing -91.9% ✓ Closure of schools and kindergartens -90.7% ✓ Return to total isolation with strict curfew - 68.7%	**More than 20% of respondents who noted the ineffectiveness of measures:** ✓ Return to total isolation with strict curfew- 31.3%;

According to respondents from **Pakistan:**

Effective measures	Non-Effective measures
✓ Permanent hand disinfection - 90.8%; ✓ Requirement to wear masks when around other people outside the home - 90.5%; ✓ The requirement that the people were at a distance of not less than 1.5 meters from each other. while at work. in a restaurant or in other similar places - 81.9%; ✓ The requirement to check the body temperature before entering enterprises or places of mass gathering of people - 81.3%; ✓ Large-scale and rapid testing - 80.8%. ✓ Use of technology for location and exposure to coronavirus -78.3% ✓ Regular cleaning of the room with disinfectants - 76.7%	✓ Return to total isolation with strict curfew- 80.5%; ✓ Closure of schools and kindergartens- 56.1%; **More than 20% of respondents who noted the ineffectiveness of measures:** ✓ Regular cleaning of the room with disinfectants - 23.3%; ✓ Requirement to use technology for location and exposure to coronavirus - 21.7%.

According to respondents from **Tajikistan:**

Effective measures

- ✓ Permanent hand disinfection - 97.7%;
- ✓ Requirement to wear masks when around other people outside the home - 94.1%;
- ✓ Regular cleaning of the room with disinfectants - 92.0%;
- ✓ The requirement that the people were at a distance of not less than 1.5 meters from each other. while at work. in a restaurant or in other similar places - 88.1%;
- ✓ The requirement to check the body temperature before entering enterprises or places of mass gathering of people - 83.0%.
- ✓ Requirement to use technology for location and exposure to coronavirus -72.3%
- ✓ Large-scale and rapid testing -63.2%
- ✓ Closure of schools and kindergartens -47.2%
- ✓ Return to total isolation with strict curfew - 41.9%

Non-Effective measures

- ✓ Return to total isolation with strict curfew- 58.1%;
- ✓ Closure of schools and kindergartens- 52.8%;

More than 20% of respondents who noted the ineffectiveness of measures:

- ✓ Large-scale and rapid testing - 36.8%;
- ✓ Requirement to use technology for location and exposure to coronavirus - 27.7%.

According to respondents from **Uzbekistan:**

Effective measures

- ✓ Permanent hand disinfection - 95.0%;
- ✓ Regular cleaning of the room with disinfectants - 90.5%;
- ✓ Requirement to wear masks when around other people outside the home - 89.6%;
- ✓ Large-scale and rapid testing - 72.6%;
- ✓ The requirement that the people were at a distance of not less than 1.5 meters from each other. while at work. in a restaurant or in other similar places - 72.1%;
- ✓ The requirement to check the body temperature before entering enterprises or places of mass gathering of people -71.8%
- ✓ Requirement to use technology for location and exposure to coronavirus -55.8%

Non-Effective measures

- ✓ Return to total isolation with strict curfew- 67.7%;
- ✓ Closure of schools and kindergartens- 58.4%;

More than 20% of respondents who noted the ineffectiveness of measures:

- ✓ Requirement to use technology for location and exposure to coronavirus - 44.2%;
- ✓ The requirement to check the body temperature before entering enterprises or places of mass gathering of people - 28.2% .
- ✓ The requirement that the people were at a distance of not less than 1.5 meters from each other. while at work. in a restaurant or in other similar places – 27.9%;
- ✓ Large-scale and rapid testing -27.4%

Table 20. In your opinion, which of the following measures are needed to counter new waves of the COVID-19 (coronavirus) pandemic if vaccination is not effective? (%)

Answer options	*Georgia*		*Kazakhstan*		*Kyrgyz Republic*		*Mongolia*		*Pakistan*		*Tajikistan*		*Uzbekistan*	
	Yes	*No*	*Yes*	*No*	*Yes*	*No*	*Yes*	*No*	*Yes*	*No*	*Yes*	*No*	*Yes*	*No*
Requiring people to wear face masks when they are around other people outside their homes	94.4	5.6	85.0	15.0	85.6	14.4	97.6	2.4	90.5	9.5	94.1	5.9	89.6	10.4
Requiring people to have their temperature checked before entering businesses or crowded places	86.9	13.1	80.1	19.9	79.6	20.4	96.4	3.6	81.3	18.7	83.0	17.0	71.8	28.2
Widespread and fast testing	81.7	18.3	71.0	29.0	72.1	27.9	91.9	8.1	80.8	19.2	63.2	36.8	72.6	27.4
Requiring people to be at least 1.5 meters apart in places such as workplaces and restaurants or in other similar places	95.9	4.1	75.8	24.2	78.4	21.6	96.2	3.8	81.9	18.1	88.1	11.9	72.1	27.9
Closure of schools and kindergartens	74.2	25.8	37.6	62.4	50.2	49.8	90.7	9.3	43.9	56.1	47.2	52.8	41.6	58.4
Requiring people to use technology to track location and exposure to the coronavirus	73.5	26.5	50.8	49.2	71.7	28.3	92.8	7.2	78.3	21.7	72.3	27.7	55.8	44.2
Going back to the complete lockdown with strict curfews	42.4	57.6	29.6	70.4	32.3	67.7	68.7	31.3	19.5	80.5	41.9	58.1	32.3	67.7
Regular treatment of the premises with disinfectants	95.1	4.9	79.3	20.7	86.7	13.3	97.5	2.5	76.7	23.3	92.0	8.0	90.5	9.5
Permanent hand disinfection	98.8	1.2	88.9	11.1	90.7	9.3	97.7	2.3	90.8	9.2	97.7	2.3	95.0	5.0

Assessment of future scientific development opportunities against COVID-19

At the moment, scientists, researchers from all over the world are trying to study the nature of COVID-19, develop treatment procedures, and develop general herd immunity. Scientific developments to stop coronavirus infection play an important role in this. As part of the survey, respondents were asked how much they believe in scientific developments of the future and their ability to create immunity against coronavirus:

- ✓ **76.9%** of the surveyed residents of Mongolia believe that in the future scientific developments will help create immunity against COVID-19, do not believe - 12.6%, 10.5% found it difficult to give an answer;
- ✓ **75.5%** of Uzbek respondents also believe in this, 19.3% - no, 5.2% found it difficult to answer;

- ✓ **73.5%** of survey participants from Tajikistan are also positive, 18.0% express a negative point of view, 8.5% found the question difficult;
- ✓ **73.5%** of the surveyed population of the Kyrgyz Republic believe in scientific developments of the future, 14.6% adhere to the opposite opinion, 11.9% found it difficult to give an answer;
- ✓ **67.0%** of surveyed population of Georgia believe in the possibility of creating immunity against COVID-19, 20.5% - no, 12.5% found it difficult to answer;
- ✓ more than half of Pakistani respondents **(55.3%)** expressed a positive opinion, on the contrary 34.5% think, 10.2% found it difficult to answer;
- ✓ **42.2%** of Kazakhstani respondents believe that scientific developments will help in creating immunity, 39.5% will not help, 18.3% found it difficult to answer.

66.3% of respondents from all seven countries believe in the possibilities of science in creating immunity from coronavirus in the future. 22.7% are more skeptical about this issue (Table 21)

Table 21. Do you believe scientific developments will help humanity build immunity against COVID-19 in the future? (%)

	Georgia	*Kazakhstan*	*Kyrgyz Republic*	*Mongolia*	*Pakistan*	*Tajikistan*	*Uzbekistan*	*CAREC countries*
Yes, I believe, scientific developments will help humanity never get sick with COVID-19	37.3	14.1	37.9	36.3	36.2	44.9	48.1	**36.4**
Rather, I believe scientific developments will help most people to not get sick with COVID-19	29.7	28.1	35.6	40.6	19.1	28.6	27.4	**29.9**
Total percentage	**67**	**42.2**	**73.5**	**76.9**	**55.3**	**73.5**	**75.5**	**66.3**
I rather do not believe it, scientific developments will not be able to fully protect people from COVID-19	14.9	21.6	9.7	9.7	8.4	12.6	14.5	**13.1**
No, I don't believe it, the role of science is overrated	5.6	17.9	4.9	2.9	26.1	5.4	4.8	**9.6**
Total percentage	**20.5**	**39.5**	**14.6**	**12.6**	**34.5**	**18**	**19.3**	**22.7**
Don't know	12.5	18.3	11.9	10.5	10.2	8.5	5.2	**11.0**
Total	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***

Assessment of current health state

One of the objectives of the study was to determine how the coronavirus pandemic affected the daily life of the population of the seven countries studied. With regard to assessing the state of health, three groups can be distinguished:

Group one - respondents from Georgia, Kazakhstan, Mongolia and Uzbekistan, most of whom did not identify changes in their health status:

- ✓ the majority of respondents in Mongolia noted that their health status has not changed compared to 2019 **(80.9%),** 11.7% spoke about its deterioration, 6.4% - about improvement;
- ✓ most of the respondents in Georgia also answered that there were no changes **(71.6%),** 16.5% noted an improvement in their health, 11.1% - a deterioration,
- ✓ **67.2%** of Kazakhstanis participating in the survey did not note any changes in their health status, 14.8% spoke about health improvement, 13.5% - about deterioration, 4.5% found it difficult to assess their health status;
- ✓ almost half of the respondents in Uzbekistan **(47.3%)** spoke about the absence of changes in their state of health, 39.1% - about the improvement, 13.3% - about the deterioration;

Group two - respondents from the Kyrgyz Republic, most of whom noted deteriorating health:

- ✓ More than a third of respondents from the Kyrgyz Republic **(34.9%)** reported deteriorating health, 31.6% - no changes, more than a quarter (27.3%) - about improvement, another 6.2% found it difficult to assess the state of health.

Group three - respondents from Pakistan and Tajikistan whose health has improved:

- ✓ the health status of the majority of Pakistani respondents surveyed has improved **(64.7%)** compared to 2019, of 16.1% it has worsened, of another 19.2% it has remained unchanged;
- ✓ the health of **46.4%** of survey participants from Tajikistan also improved, 40.4% remained unchanged, and 12.1% deteriorated (Table 22).

Table 22. What is your current health status compared to 2019? (%)

Answer options	*Georgia*	*Kazakhstan*	*Kyrgyz Republic*	*Mongolia*	*Pakistan*	*Tajikistan*	*Uzbekistan*	*7 COUNTRIES*
Better	16.5	14.8	27.3	6.4	64.7	46.4	39.1	30.7
Worse	11.1	13.5	34.9	11.7	16.1	12.1	13.3	16.1
Same	71.6	67.2	31.6	80.9	19.2	40.4	47.3	51.2
Don't know	0.8	4.5	6.2	1.0	-	1.1	0.3	2.0
Total	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***

Assessment of the current financial position

The pandemic also affected the economic lives of the populations of the countries of the world. As part of this study, respondents were asked to assess the financial situation of the family in comparison with 2019. In this question, two groups of respondents' answers can be noted:

Group One - the majority of respondents from Kazakhstan, Uzbekistan and Tajikistan answered that there were no changes in the financial situations of their families compared to 2019:

in Kazakhstan, the situation of **49.3%** of families of the surveyed respondents remained unchanged, while for 26.9% the financial condition worsened, for 18.6% it improved, and 5.2% of respondents found it difficult to answer;

in Uzbekistan, the financial situation of **40.7%** of families of survey participants did not change, while 29.4% of respondents noted an improvement, and 28.9% felt a deterioration;

in Tajikistan, **38.7%** of the families of the surveyed population remained the same in terms of their financial situation, while 30.2% got better, 28.5% worsened, and 2.6% found it difficult to assess changes in the financial situation.

Group Two - most of the survey participants from Mongolia, Kyrgyzstan, Georgia and Pakistan said that the financial situation of their families was deteriorating:

the financial situation of more than half of the families of respondents in Mongolia deteriorated in 2020 **(59.9%)**, while 35.5% of respondents did not change their financial condition, and 4.0% improved;

in Kyrgyzstan, **46.7%** of respondents noted a deterioration in their financial situation, while 28.6% felt no changes, 18.0% spoke about improvement, and 6.7% found it difficult to answer,

in Georgia**, 46.3%** of respondents spoke about the deterioration of their financial situation, while for 44.7% everything remained the same, for 7.0% it improved, and 2.0% found it difficult.

In Pakistan, the financial situation of **45.1%** of respondent families has worsened, while for 35.0% it has improved, and 19.7% remained unchanged (Table 23).

Table 23. How would you describe the financial situation in your household compared to 2019? (%)

Answer options	*Georgia*	*Kazakhstan*	*Kyrgyz Republic*	*Mongolia*	*Pakistan*	*Tajikistan*	*Uzbekistan*	*7 COUNTRIES*
Better	7.0	18.6	18.0	4.0	35.0	30.2	29.4	20.3
Worse	46.3	26.9	46.7	59.9	45.1	28.5	28.9	40.3
Same	44.7	49.3	28.6	35.5	19.7	38.7	40.7	36.7
Don't know	2.0	5.2	6.7	0.6	0.2	2.6	1.0	2.7
Total	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***

Forecast of the economic situation in the country

Most experts predict the long-term economic impacts of the coronavirus pandemic. During the survey, respondents were asked about the forecasts about the severity of the country's economic problems in 2021, compared to 2020. The respondents' answers can be divided into **three groups**:

Group One - respondents from Mongolia, Pakistan, Kyrgyzstan and Kazakhstan, who expressed their opinion about the difficulties in overcoming economic problems.

81.3% of those in Mongolia expect economic problems to come. **10.1%** of respondents believe that nothing will change in the economic sphere, and **6.9%** found it difficult to give their assessment,

in Pakistan, more than half of the surveyed population (**55.7%)** believe that 2021 will be more difficult than the previous one. **23.9%**, believe the contrary, and are more optimistic, while **11.5%** do not think that anything will change, and **8.9%** found it difficult to give an answer;

in Kyrgyzstan - **45.2%** of respondents believe that economic problems will be more difficult in 2021, **23.9%** answered to the contrary, saying it would be easy, **8.8%** said nothing would change, and **22.1%** of respondents found it difficult to assess;

in Kazakhstan, **33.8%** expect an economic downturn. 28.0% are positive about the economy, 24.4% believe that everything will remain the same, and 13.8% found it difficult to answer.

Group Two - survey participants from Uzbekistan and Tajikistan who believe that economic problems are easily overcome. The breakdown is as follows:

43.8% of respondents from Uzbekistan are positive about their economic futures. More than a third (34.0%) believe that 2021 will be difficult economically, while 15.8% believe that everything will remain as it was, and 6.4% found it difficult to assess the economic prospects;

42.7% of survey participants from Tajikistan have a positive outlook about the economy. However, a third (33.7%) assess the economic situation more pessimistically, 14.5% believe that everything will remain the same, and 9.1% found it difficult to answer.

Group Three - respondents from Georgia, whose opinions are divided.

In Georgia, almost the same number of respondents spoke about the complexity of economic problems in 2021 (36.3%) and the ease of overcoming them (36.0%), while 12.3% believe that nothing will change, and another 15.4% found it difficult to answer to this question (Table 25).

On average for the entire sample (7,000 respondents), 45.7% of respondents believe that 2021 compared to 2020 will be more difficult economically, while 28.6% of respondents are optimistic about their economic prospects. 13.9% of respondents believe that nothing will change (Table 24).

Table 24. What do you think, will the economic challenges for your country be more difficult or easier to overcome in 2021 compared to 2020? (%)

Answer options	*Georgia*	*Kazakhstan*	*Kyrgyz Republic*	*Mongolia*	*Pakistan*	*Tajikistan*	*Uzbekistan*	*7 COUNTRIES*
More difficult	36.3	33.8	45.2	81.3	55.7	33.7	34.0	45.7
Easier to overcome	36.0	28.0	23.9	1.7	23.9	42.7	43.8	28.6
Same	12.3	24.4	8.8	10.1	11.5	14.5	15.8	13.9
Don't know	15.4	13.8	22.1	6.9	8.9	9.1	6.4	11.8
Total	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***

Impact of the pandemic on the daily lives of respondents

The COVID-19 pandemic and the introduction of restrictive measures invariably affected the lives of the entire populations of the countries participating in the project. The results of the survey showed that some economic aspects of the respondents' lives have undergone changes as a result of the coronavirus pandemic to a greater extent, while others have transpired to a lesser extent.

However, what is known is that the changes affected all respondents and their families:
The most respondents lost their jobs in Mongolia (29.8%), while the least lost jobs in Tajikistan (13.7%).
Of the seven countries surveyed, the respondents in Kyrgyzstan *were most likely forced to go on unpaid leave*: (21.5%), while the least were in Georgia (14.4%).
Many of the respondents from Pakistan noted that *they had closed their businesses* (40.1%), the least were in Kazakhstan (8%).
Working hours were reduced for 26.1% of Kyrgyzstanis (the largest group among all seven countries), while 11.5% for Tajiks (the smallest group) had the same issue.
29% of Uzbekistanis *began to work remotely*, representing the largest group. Meanwhile, the smallest group (3.8%) of remote workers was found in Tajikistan.
Social payments and benefits were received by 15.9% of Kazakhstani survey participants – the largest group in the countries surveyed. Meanwhile 4.7% of respondents from Mongolia received some stimulus (the smallest group).
The respondents from Uzbekistan (50.4%) *go to work in the previous before-covid mode*, while only 23.1% from Mongolia do the same.
Children from kindergartens were sent home for 31.8% of respondents from Pakistan (the largest number among the seven countries participating in the project) and 10.4% from Georgia (the lowest).
A salary was not given to 12.3% of Uzbekistani project participants, while 4.1% of the respondents from Georgia had the same problem.

On average, across the entire sample (7,000 respondents), 20.1% of respondents lost their jobs, 16.5% went on unpaid leave, 16.8% closed their businesses, 18.3% work part-time, 19.5% work remotely, 11% receive social benefits, 36.1% go to work as usual, 19.7% pulled children from kindergarten, 8.4% could not go to work in another country, and 8.5% did not receive wages (Table 25).

Table 25. Please, tell us for each of the following economic experiences whether or not this happened to you during the coronavirus pandemic? (%)

Answer options	Georgia		Kazakhstan		Kyrgyz Republic		Mongolia		Pakistan		Tajikistan		Uzbekistan		7 COUNTRIES	
	Yes	*No*	*Yes*	*No*	*Yes*	*No*	*Yes*	*No*	*Yes*	*No*	*Yes*	*No*	*Yes*	*No*	*Yes*	*No*
I lost my job	22.2	77.8	14.5	85.5	22.1	77.9	29.8	70.2	21.8	78.2	13.7	86.3	16.3	83.7	20.1	79.9
I had to go on unpaid leave	14.4	85.6	16.7	83.3	21.5	78.5	18.8	81.2	16.2	83.8	12.6	87.4	15.0	85.0	16.5	83.5
I had to close my business	9.3	90.7	8.0	92.0	17.0	83.0	28.1	71.9	40.1	59.9	10.0	90.0	4.9	95.1	16.8	83.2
I have been reduced to part time work.	12.0	88.0	16.2	83.8	26.1	73.9	18.4	81.6	24.2	75.8	11.5	88.5	19.8	80.2	18.3	81.7
I must work from home (work remotely).	14.4	85.6	18.8	81.2	28.9	71.1	20.7	79.3	20.6	79.4	3.8	96.2	29.0	71.0	19.5	80.5
I receive money from an aid package.	13.1	86.9	15.9	84.1	7.9	92.1	4.7	95.3	13.1	86.9	8.7	91.3	13.5	86.5	11.0	89.0
I go to work as before.	27.5	72.5	37.8	62.2	44.6	55.4	23.1	76.9	26.7	73.3	42.5	57.5	50.4	49.6	36.1	63.9
h. I had to take my kids out of kindergarten (answer those who have children who attended kindergarten)	10.4	89.6	19.7	80.3	27.1	72.9	24.8	75.2	31.8	68.2	11.2	88.8	12.7	87.3	19.7	80.3
Couldn't leave for/return from labor migration	7.6	92.4	6.0	94.0	15.0	85.0	4.2	95.8	4.7	95.3	15.8	84.2	5.6	94.4	8.4	91.6
My employer didn't pay my salary.	4.1	95.9	8.1	91.9	10.8	89.2	6.2	93.8	11.7	88.3	6.1	93.9	12.3	87.7	8.5	91.5

Fears of COVID-19 infection and the economic impact of the pandemic

The emergence and rapid spread of the new coronavirus of unknown origin, and death associated with the disease, resulted in a certain level of general fear and fear of infection.

The level of concern about the possibility of personal infection with the virus, family and friends was:

94.0% in Mongolia (of which 69.5% are very afraid), only 3.9% do not worry about this issue;

84.8% in the Kyrgyz Republic (of which 62.3% are very afraid), 8.6% are not afraid;

78.8% in Uzbekistan (of which 59.1% are very afraid), 16.0% do not feel fear,

65.0% in Kazakhstan (of which 30.9% are very afraid), 15.3% are more relaxed about the possibility of suffering from coronavirus, 19.7% expressed neither one nor the other opinion;

58.8% in Tajikistan (of which 39.2% are very afraid), 28.2%, on the contrary, do not feel fear, 13.0% have taken a border position;

50.9% in Pakistan (of which 26.7% are very afraid), 13.7% did not clearly define their feelings, 35.4% do not worry about this issue (of which 22.3% are not afraid at all).

45.1% in Georgia are afraid of the coronavirus and its consequences, 29.5% are not, another quarter (25.4%) took an intermediate position (Table 26).

Table 26. How afraid are you that you or your loved ones get sick and suffer severely from the coronavirus? (%)

Answer options	*Georgia*	*Kazakhstan*	*Kyrgyz Republic*	*Mongolia*	*Pakistan*	*Tajikistan*	*Uzbekistan*	*7 COUNTRIES*
Very afraid	14.7	30.9	62.3	69.5	26.7	39.2	59.1	43.2
Quite afraid	30.4	34.1	22.5	24.5	24.2	19.6	19.7	25.0
Total percentage	**45.1**	**65.0**	**84.8**	**94.0**	**50.9**	**58.8**	**78.8**	**68.2**
Neither, nor	25.4	19.7	6.6	2.1	13.7	13.0	5.2	12.2
Not very afraid	24.2	12.1	5.8	3.6	13.1	11.8	9.9	11.5
Not at all afraid	5.3	3.2	2.8	0.3	22.3	16.4	6.1	8.1
Total percentage	**29.5**	**15.3**	**8.6**	**3.9**	**35.4**	**28.2**	**16**	**19.6**
Total	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***

Fear of suffering themselves or close ones from economic downturn due to the coronavirus pandemic is experienced by:

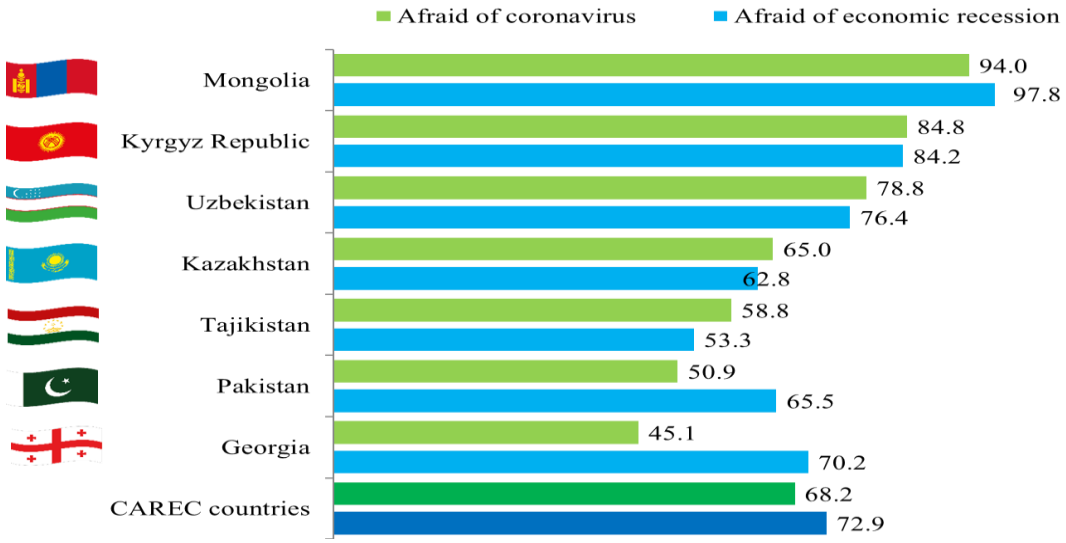
- ✓ **97.8%** of survey participants in Mongolia (of which 71.7% are very afraid), only 1.8% of citizens hold the opposite opinion;
- ✓ **84.2%** of the respondents in the Kyrgyz Republic (of which 52.9% are very afraid), 8.8% are not afraid of such a scenario;
- ✓ **76.4%** of respondents in Uzbekistan (55.6% of them are very afraid), 16.6% do not feel fear;
- ✓ **70.2%** of the respondents in Georgia (of which 27.6% are very), 9.9% are not afraid, another 19.9% do not experience either one or the other;
- ✓ **65.5%** of the survey participants are from Pakistan (of which 35.4% are very), 22.9% are not worried about it (of which 14.2% are at all), another 11.6% took an intermediate position;
- ✓ **62.8%** of respondents from Kazakhstan (of which 29.3% are very), 16.8% are not afraid of this, another 20.4% do not feel either fear or lack of it;
- ✓ **53.3%** of the respondents in Tajikistan (of which 32.8% are very), 25.8% are not worried (of which 12.8% are at all), 20.9% have taken a border position (Table 27).

Table 27. How scared are you that you or your loved ones will suffer from the economic recession following the coronavirus? (%)

Answer options	*Georgia*	*Kazakhstan*	*Kyrgyz Republic*	*Mongolia*	*Pakistan*	*Tajikistan*	*Uzbekistan*	*7 COUNTRIES*
Very afraid	27.6	29.3	52.9	71.7	35.4	32.8	55.6	43.6
Quite afraid	42.6	33.5	31.3	26.1	30.1	20.5	20.8	29.3
Total percentage	**70.2**	**62.8**	**84.2**	**97.8**	**65.5**	**53.3**	**76.4**	**72.9**
Neither, nor	19.9	20.4	7.0	0.4	11.6	20.9	7.0	12.5
Not very afraid	9.4	12.4	6.4	1.6	8.7	13.0	13.0	9.2
Not at all afraid	0.5	4.4	2.4	0.2	14.2	12.8	3.6	5.4
Total percentage	**9.9**	**16.8**	**8.8**	**1.8**	**22.9**	**25.8**	**16.6**	**14.6**
Total	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***

An approximately equal number of respondents are afraid of contracting the virus or of economic recession due to the pandemic in Mongolia, the Kyrgyz Republic, Uzbekistan, and Kazakhstan.
In Pakistan and Georgia, there are more respondents fearing the economic consequences of the pandemic than the possibility of personal infection or infection of loved ones.
In Tajikistan, more respondents are worried about the possibility of contracting COVID-19 than about economic consequences.
In sum in all countries participating in the project, 72.9% of respondents are worried about economic recession, 68.2% are worried about the possibility of contracting the virus (Diagram 7).

Diagram 7. Share of respondents concerned about coronavirus infection and post-pandemic economic downturn (%)



COVID-19: personal experience, degree of disease, form of treatment

Personal experience with COVID-19

One of the objectives of the study was to determine the extent of the spread of the coronavirus disease in the studied countries, the extent of the disease, treatment and public attitudes towards safety measures. Respondents that believe that they were not infected with the coronavirus:

- ✓ **98.7%** of respondents from Mongolia,
- ✓ **93.5%** of respondents from Pakistan,

- ✓ **81.9%** of respondents from Georgia,
- ✓ **69.6%** of respondents from Kazakhstan,
- ✓ **58.9%** of respondents from Uzbekistan,
- ✓ **57.6%** of respondents from Tajikistan,
- ✓ **39.4%** of respondents from the Kyrgyz Republic.

The results of the survey showed that:

- ✓ **26.2%** of respondents - residents of the Kyrgyz Republic have had or are sick with COVID-19, another 34.4% believe that they have had an asymptomatic form,
- ✓ **24.7%** of respondents from Uzbekistan were sick or are sick with COVID-19 at the moment, another 16.4% do not know for sure, but think that they have had asymptomatic illness;
- ✓ **20.1%** of survey participants from Tajikistan have had coronavirus, another 22.3% believe that they have had an asymptomatic form.
- ✓ **14.2%** of respondents in Georgia gave a positive answer, another 3.9% claim that they had been ill without symptoms.
- ✓ In Kazakhstan, **9.7%** of respondents were infected and ill, while another 20.7% were ill without symptoms.
- ✓ In Mongolia, the vast majority of respondents (98.7%) did not have COVID-19,
- ✓ 93.5% of Pakistani citizens surveyed were also not infected with the coronavirus. **1.7%** were ill and another 4.8% were asymptomatic.

According to the survey in the seven countries, 71.4% of respondents were not infected with the virus. The rest have had COVID-19 in various forms (Table 28).

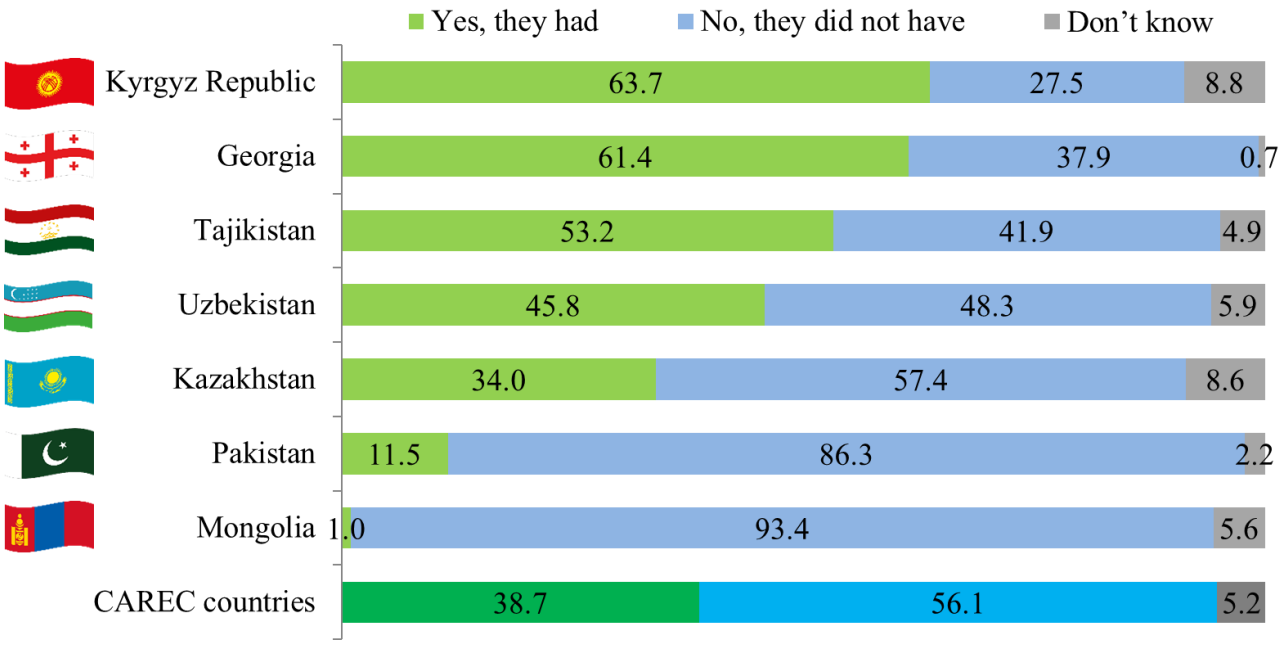
Table 28. Have you yourself been infected with COVID-19? (%)

	Georgia	*Kazakhstan*	*Kyrgyz Republic*	*Mongolia*	*Pakistan*	*Tajikistan*	*Uzbekistan*	*CAREC countries*
Yes, I was sick with COVID-19	14.0	9.1	24.9	0.1	1.5	18.5	24.3	**13.2**
Yes, I am now sick with COVID-19	0.2	0.6	1.3	-	0.2	1.6	0.4	**0.6**
I don't know for sure, but I think I got sick without symptoms	3.9	20.7	34.4	1.2	4.8	22.3	16.4	**14.8**
No	81.9	69.6	39.4	98.7	93.5	57.6	58.9	**71.4**
Total	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***

People who reported that their inner circle - family members, relatives, friends and colleagues have been ill with COVID-19 included:

- ✓ **63.7%** of respondents from the Kyrgyz Republic,
- ✓ **61.4%** of respondents from Georgia,
- ✓ **53.2%** of respondents from Tajikistan,
- ✓ **45.8%** of respondents from Uzbekistan,
- ✓ **34.0%** of respondents from Kazakhstan,
- ✓ **11.5%** of respondents from Pakistan,
- ✓ **1.0%** of respondents from Mongolia. (Diagram 8)

Diagram 8. Were your family members, relatives, friends, colleagues sick with COVID-19? (%)



The lowest number of infected respondents was in Mongolia, the largest in the Kyrgyz Republic (60.6% of respondents were sick themselves, 63.7% of respondents noted that their loved ones were sick) (Table 29)

Table 29. The share of respondents who have had COVID-19 and the share of respondents whose members of their inner circle have been ill with? (%)

	Georgia	*Kazakhstan*	*Kyrgyz Republic*	*Mongolia*	*Pakistan*	*Tajikistan*	*Uzbekistan*	*CAREC countries*
The proportion of respondents who have personally experienced various forms of illness	18.1	30.4	60.6	1.3	6.5	42.4	41.1	**28.6**
The proportion of respondents whose relatives, friends, colleagues, etc. were ill.	61.4	34	63.7	1	11.5	53.2	45.8	**38.7**

The degree of the disease experienced

Respondents who had had COVID-19 or were sick during the survey were asked to describe the severeness of their disease.

In Georgia (142 out of 1,000 respondents), 43.7% were moderately ill with COVID-19, 35.2% were mild, 13.4% were asymptomatic, 4.9% were of moderate severity with the use of oxygen therapy, 2.8% - in severe form.

In Kazakhstan (out of 1000 respondents, 97 were ill) 41.2% experienced moderate severity, 37.1% a mild one, 11.3% were asymptomatic, 8.2% were treated with oxygen therapy, 2.2% had the disease in severe form.

In Uzbekistan (247 out of 1000 respondents), 64.8% were affected mildly, 15.4% were moderately ill, 15.0% were asymptomatic, 2.8% were treated with oxygen therapy, 2.0% had the disease in severe form.

In the Kyrgyz Republic (out of 1000 respondents 262 were ill) 58.8% - mild, 25.5% - moderate, 7.3% - no symptoms, 4.2% - using oxygen therapy, 4.2% - in severe form.

In Tajikistan (201 out of 1000 respondents) 53.7% - mild, 25.9% - moderate, 11.9% - no symptoms, 6.0% - using oxygen therapy, 2.5% - in severe form.

In Pakistan, out of 1,000 respondents, 17 were mostly asymptomatic or mildly ill with COVID-19 or were ill at the time of the survey.
One respondent from Mongolia noted that he had a mild form of COVID-19 (Table 30).

Table 30. How is your COVID-19 (coronavirus) disease going or was going? (%)
only those respondents who have been infected with COVID-19 answer this question

Answer options	***Georgia***	***Kazakhstan***	***Kyrgyz Republic***	***Mongolia***	***Pakistan***	***Tajikistan***	***Uzbekistan***
Number of respondents infected with COVID-19	**N=142**	**N=97**	**N=262**	**N=1**	**N=17**	**N=201**	**N=247**
I was (am) sick without symptoms	13.4	11.3	7.3	-	35.3	11.9	15.0
I had (have) COVID-19 (coronavirus), but in a rather light form	35.2	37.1	58.8	100.0	35.3	53.7	64.8
I had (have) COVID-19 (coronavirus) of middle severity	43.7	41.2	25.5	-	11.8	25.9	15.4
I had (have) COVID-19 (coronavirus) of middle severity, using oxygen therapy	4.9	8.2	4.2	-	5.9	6.0	2.8
I had (have) severe COVID-19 (coronavirus), using oxygen therapy	2.8	2.2	4.2	-	11.8	2.5	2.0
Total	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***

Forms of treatment

Some of the respondents who participated in the survey were previously ill with COVID-19 or were ill during the survey (the survey was conducted in December 2020 - January 2021) in various forms, including asymptomatic.
606 respondents from the Kyrgyz Republic suffered from COVID-19. 45.4% of patients were treated at home by themselves, 19.6% - at home under the supervision of doctors, 3.8% - in a hospital, 4.0% - in a hospital, 0.5% - in a hotel, 26.7% were not treated, but believed to have been ill without obvious symptoms (Table 31).
424 respondents from Tajikistan noted that they had COVID-19. 26.2% were treated at home by themselves, 15.8% - at home under the supervision of doctors, 3.8% - in a hospital, 0.7% - in a hospital, 0.4% - in a hotel, 53.1% were not treated, but believed they were asymptomatic.
411 respondents from Uzbekistan suffered from COVID-19. 52.6% were treated at home independently, 18.7% - at home under the supervision of doctors, 7.5% - in a hospital, 21.2% did not receive treatment but believed they were asymptomatic.
304 respondents from Kazakhstan suffered from COVID-19. 38.5% were treated at home independently, 27.3% - at home under the supervision of doctors, 8.2% - in a hospital, 2.3% - in a clinic, 0.3% - in a hotel, 23.4% were not treated but believed they were asymptomatic.
181 respondents from Georgia noted that they suffered from coronavirus in various forms.
45.3% of cases of COVID-19 in Georgia were treated under the supervision of doctors, 37.0% - on their own, 10.5% were in the hospital.
65 respondents from Pakistan were sick with coronavirus. 38.5% were independently treated at home, 20.0% - at home under the supervision of doctors, 3.1% - in a hospital, 7.7% - in a hospital, 30.7% did not receive treatment due to the absence of symptoms.
13 respondents from Mongolia suffered from coronavirus in various forms, but were mostly asymptomatic and were treated at home by themselves (Table 31).

Table 31. How is or was your COVID-19 (coronavirus) treatment? (%)

this question is answered only by those respondents who were infected and those who had been ill without symptoms of COVID-19

Answer options	***Georgia***	***Kazakhstan***	***Kyrgyz Republic***	***Mongolia***	***Pakistan***	***Tajikistan***	***Uzbekistan***
Respondents who have been infected and those who have recovered without symptoms of COVID-19	**N=181**	**N=304**	**N=606**	**N=13**	**N=65**	**N=424**	**N=411**
I am/was treated at home, on my own	37.0	38.5	45.4	61.5	38.5	26.2	52.6
I am/was treated at home under the supervision of doctors	45.3	27.3	19.6	-	20.0	15.8	18.7
I do not/did not receive treatment, but I assume that I was sick without symptoms	2.2	23.4	26.7	38.5	30.7	53.1	21.2
I am/was in the hospital	10.5	8.2	3.8	-	3.1	3.8	7.5
I am visiting/visited a day hospital	-	2.3	4.0	-	7.7	0.7	-
I am/was in a COVID-19 hotel	5.0	0.3	0.5	-	-	0.4	-
Total	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***

Testing for COVID-19 and Antibodies

One of the measures to combat the spread of coronavirus is the widespread testing of the population, which each country has applied to the best of its ability. Within the framework of this study, tests for the new coronavirus or the presence of antibodies underwent:

- ✓ in the Kyrgyz Republic, **47.4%** of respondents (of which several times - 32.2%),
- ✓ in Uzbekistan **37.3%** of respondents (of which several times - 15.8%),
- ✓ in Mongolia **36%** of respondents (of which several times - 14.7%);
- ✓ in Kazakhstan **32.6%** of respondents (of which several times - 10.4%);
- ✓ in Georgia, **29%** of respondents (of which several times - 11.6%);
- ✓ in Tajikistan, **13.2%** of respondents (of which several times - 3.4%);
- ✓ in Pakistan **11.5%** of respondents (of which several times - 2.3%).

About 30% of respondents (29.6%) in the seven participating countries were tested, of which 12.9% of respondents took several tests (Table 32).

Table 32. Have you been tested for COVID-19 (coronavirus) or antibodies? (%)

Answer options	***Georgia***	***Kazakhstan***	***Kyrgyz Republic***	***Mongolia***	***Pakistan***	***Tajikistan***	***Uzbekistan***	***7 COUNTRIES***
Yes, once	17.4	22.2	15.2	21.3	9.2	9.8	21.5	16.7
Yes, several times	11.6	10.4	32.2	14.7	2.3	3.4	15.8	12.9
Total percentage	**29**	**32.6**	**47.4**	**36**	**11.5**	**13.2**	**37.3**	**29.6**
No, I have not been tested for coronavirus	71.0	67.4	52.6	64.0	88.5	86.8	62.7	70.4
Total	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***

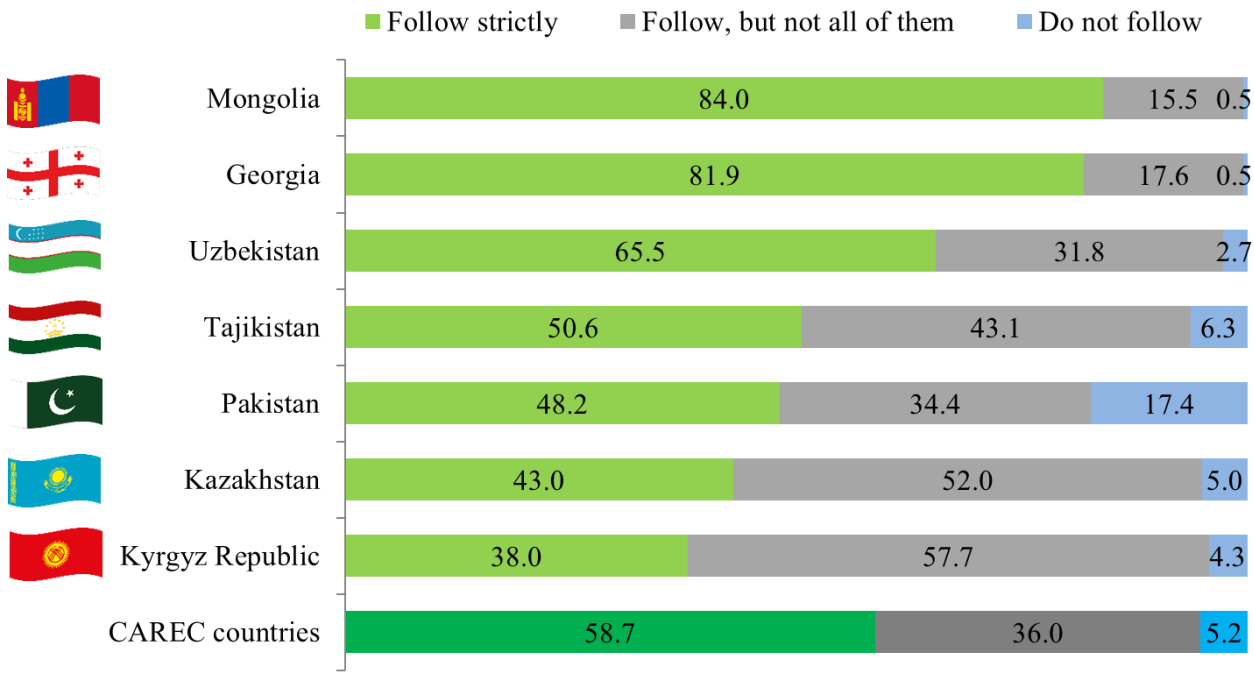
Adherence to safety measures (wearing masks, using antiseptics, avoiding crowded places)

The spread of the new coronavirus, as well as the safety of the population and the degree of damage to the country as a whole, depended on the following security measures by citizens to prevent the spread of the virus. According to the survey:
in Mongolia, **84.0%** of respondents strictly comply with precautionary measures, 15.5% - partially comply, 0.5% - do not comply,

in Georgia, the majority of respondents **(81.9%)** observe all precautionary measures very strictly, 17.6% do not comply with all measures, 0.5% do not follow them at all,
in Uzbekistan, **65.5%** of survey participants comply with precautionary measures, 31.8% - not all of them, 2.7% - do not comply,
in Tajikistan, half of the surveyed citizens follow all the prescriptions - **50.6%,** 43.1% - partially, 6.3% - do not follow any,
in Pakistan, **48.2%** of respondents strictly observe precautionary measures, 34.4% - not all, 17.4% - do not comply at all,
in Kazakhstan, **43.0%** of respondents strictly comply with the precautionary measures, the majority (52.0%) - only partially, 5.0% do not comply,
in the Kyrgyz Republic **38.0%** of respondents strictly follow precautionary measures, more than half (57.7%) - not to all, another 4.3% - to none of them.

Most of the respondents - 94.7% comply with safety measures in general for all seven countries, of which 58.7% strictly comply with all measures, 36.0% do not comply with all measures (Diagram 9).

Diagram 9. Please tell me how do you follow safety measures (wearing masks, using sanitizers, avoiding crowded places) to protect yourself from infection? (%)



By age, respondents aged 46-60 from Georgia do not observe all safety measures (20.9%).
In Kazakhstan, the generation older than 61 (62.8%) strictly follow the measures, while the rest of the groups follow only some measures (over 50%).
In the Kyrgyz Republic, 10.3% of respondents of the older generation (61 and older) do not observe safety measures.
In Mongolia, the majority of respondents strictly observe all safety measures, partially observed by young people from 18 to 29 years old (18.7%).
In Pakistan, 32.6% of respondents from the older generation (61 and older) do not observe safety measures.

In Tajikistan, 11.5% of respondents from the older generation (61 and older) do not observe safety measures. In Uzbekistan, not all measures are observed by young people from 18 to 29 years old (36.9%) (Table 33).

Table 33. Please tell me how do you follow safety measures (wearing masks, using sanitizers, avoiding crowded places) to protect yourself from infection? (%, age of respondents)

	Aged 18-29	*Aged 30-45*	*Aged 46-60*	*Aged 61 and above*
Georgia				
Follow strictly	82.5	82.6	78.7	84.4
Follow, but not all of them	16.5	17.1	20.9	15.2
Do not follow	1.0	0.3	0.4	0.4
Kazakhstan				
Follow strictly	38.3	43.7	37.1	62.8
Follow, but not all of them	55.9	51.9	56.7	34.7
Do not follow	5.9	4.5	6.1	2.5
Kyrgyz Republic				
Follow strictly	35.0	34.0	44.4	46.4
Follow, but not all of them	63.2	60.2	52.1	43.3
Do not follow	1.8	5.7	3.4	10.3
Mongolia				
Follow strictly	81.3	83.0	84.6	94.7
Follow, but not all of them	18.7	16.5	14.5	4.2
Do not follow	0.0	0.5	0.9	1.1
Pakistan				
Follow strictly	57.1	46.0	42.6	43.5
Follow, but not all of them	28.9	37.1	37.6	23.9
Do not follow	13.9	16.9	19.8	32.6
Tajikistan				
Follow strictly	51.4	43.2	62.6	53.8
Follow, but not all of them	43.7	49.6	29.9	34.6
Do not follow	4.9	7.2	7.5	11.5
Uzbekistan				
Follow strictly	61.1	65.3	68.9	74.0
Follow, but not all of them	36.9	30.9	28.5	24.0
Do not follow	2.0	3.8	2.6	2.1

In most of the countries studied **women** are stricter than **men** in taking precautions - wearing masks, using antiseptics, and avoiding crowds. The exception is Pakistani men, who are stricter than Pakistani women in observing precautions (53.3% of men, 43.7% of women strictly observing the measures) (Table 34).

Table 34. Please tell me how do you follow safety measures (wearing masks, using sanitizers, avoiding crowded places) to protect yourself from infection? (%, gender of respondents)

	Male	*Female*
Georgia		
Follow strictly	76.2	86.8
Follow, but not all of them	22.9	13.0
Do not follow	0.9	0.2
Kazakhstan		
Follow strictly	36.9	48.1
Follow, but not all of them	56.3	48.4
Do not follow	6.8	3.5
Kyrgyz Republic		
Follow strictly	34.3	42.1
Follow, but not all of them	60.3	54.8
Do not follow	5.3	3.2
Mongolia		
Follow strictly	81.8	86.2
Follow, but not all of them	17.6	13.4
Do not follow	0.6	0.4
Pakistan		
Follow strictly	53.3	43.7
Follow, but not all of them	29.3	38.9
Do not follow	17.4	17.4
Tajikistan		
Follow strictly	47.8	53.4
Follow, but not all of them	45.2	40.9
Do not follow	6.9	5.6
Uzbekistan		
Follow strictly	63.8	67.2
Follow, but not all of them	33.4	30.2
Do not follow	2.8	2.6

The need for information about the pandemic

The COVID-19 pandemic is one of the most frequently published and discussed topics in the media and on social networks.
As part of the survey, respondents were asked to determine the frequency of requesting and reading information about the coronavirus.

The respondents' answers were distributed as follows:

- ✓ **97.0%** of respondents in Mongolia seek information about a pandemic to varying degrees, only 3.0% never;
- ✓ **92.0%** of respondents from the Kyrgyz Republic, 8.0% - never;
- ✓ **90.4%** of survey participants are from Tajikistan, 9.5% - never;
- ✓ **89.3%** of Uzbekistani respondents, 10.7% - never;
- ✓ **87.4%** of respondents from Kazakhstan, 12.6% - never;
- ✓ **85.4%** of respondents from Georgia, 14.6% - never;
- ✓ **70.4%** of survey participants are from Pakistan, 29.6% - never.

87,4% of respondents on average across the entire sample search for and read information about the coronavirus pandemic in the media and on social networks (Table 35).

Table 35. How often do you search and read information on the COVID-19 (coronavirus) pandemic in the media, social networks? (%)

Answer options	*Georgia*	*Kazakhstan*	*Kyrgyz Republic*	*Mongolia*	*Pakistan*	*Tajikistan*	*Uzbekistan*	*7 COUNTRIES*
Very often	12.2	5.3	13.4	50.1	14.9	10.1	12.8	17.0
Often	27.9	17.8	33.1	30.2	21.0	20.7	28.0	25.5
Sometimes	24.0	34.2	26.7	11.8	17.3	38.6	26.8	25.6
Rarely	21.3	30.1	18.8	4.9	17.2	21.1	21.7	19.3
Total percentage	**85.4**	**87.4**	**92.0**	**97.0**	**70.4**	**90.4**	**89.3**	**87.4**
Never	14.6	12.6	8.0	3.0	29.6	9.5	10.7	12.6
Total	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***

Attitude towards the coronavirus pandemic: myth or reality

With the detection of a new type of coronavirus and its spread various kinds of fake information, disinformation about the nature of the coronavirus, the reasons for its appearance and its severity have appeared in the media, social media, and the Internet space. The emergence of infodemia can have detrimental effects on the mental state and health of a person, hindering the fight against COVID-19 and slowing vaccination.

The survey results showed that most of the respondents believe in the existence of the COVID-19 pandemic:

- ✓ **86.7%** respondents from Uzbekistan,
- ✓ **85.0%** respondents from Mongolia,
- ✓ **83.9%** respondents from Georgia,
- ✓ **81.1%** respondents from Kazakhstan,
- ✓ **80.7%** respondents from the Kyrgyz Republic,
- ✓ **79.2%** respondents from Tajikistan,
- ✓ **51.8%** respondents from Pakistan.

The opinion of Pakistanis participating in the survey was divided into almost two equal parts: 51.8% of Pakistanis believe in the existence of a pandemic, 46.8% do not.

Also, a fifth (20.2%) of respondents from Tajikistan believe that the pandemic is far-fetched

Most of the respondents from seven countries believe in the existence of a pandemic - 78.3%. 19.8% believe that the coronavirus pandemic is fake. In this question, there is not a high percentage of those who found it difficult to answer (1.4%), which indicates that the citizens of the seven countries have formed a stable opinions on this issue (Table 36).

Table 36. The social media are full of stories saying that the Corona pandemic is a hoax and that all the lockdown measures are a hysteric overreaction. Do you believe the corona pandemic is being made up? (%)

	Georgia	*Kazakhstan*	*Kyrgyz Republic*	*Mongolia*	*Pakistan*	*Tajikistan*	*Uzbekistan*	*CAREC countries*
YES, I believe the pandemic is being made up and the containment measure are an overreaction.	10.2	17.0	17.6	15.0	46.8	20.2	11.8	**19.8**
NO, I do not believe the pandemic is made up.	83.9	81.1	80.7	85.0	51.8	79.2	86.7	**78.3**

Urban residents are more susceptible to denial of the coronavirus pandemic in Pakistan (urban - 51.8%, rural - 42.9%), Uzbekistan (urban - 14.3%, rural - 9.1%), Mongolia (urban - 16, 1%, rural - 12.5%), while in the Kyrgyz Republic, rural residents (rural - 18.7%, urban - 16.6%) and Kazakhstan (rural - 18.6%, urban - 15.9%) (Table 37).

Table 37. The social media are full of stories saying that the Corona pandemic is a hoax and that all the lockdown measures are a hysteric overreaction. Do you believe the corona pandemic is being made up? (%, urban and rural population)

	Urban	*Rural*
Georgia		
YES, I believe the pandemic is being made up and the containment measure are an overreaction.	10.6	9.7
NO, I do not believe the pandemic is made up.	82.9	85.2
Other	2.4	1.4
Don't know	4.2	3.7
Kazakhstan		
YES, I believe the pandemic is being made up and the containment measure are an overreaction.	15.9	18.6
NO, I do not believe the pandemic is made up.	82.1	79.6
Don't know	2.0	1.8
Kyrgyz Republic		
YES, I believe the pandemic is being made up and the containment measure are an overreaction.	16.6	18.7
NO, I do not believe the pandemic is made up.	82.1	79.3
Don't know	1.4	2.0
Mongolia		
YES, I believe the pandemic is being made up and the containment measure are an overreaction.	16.1	12.5
NO, I do not believe the pandemic is made up.	83.9	87.5
Pakistan		
YES, I believe the pandemic is being made up and the containment measure are an overreaction.	51.8	42.9
NO, I do not believe the pandemic is made up.	45.9	56.4
Don't know	2.3	0.7
Tajikistan		
YES, I believe the pandemic is being made up and the containment measure are an overreaction.	19.3	20.5
NO, I do not believe the pandemic is made up.	79.9	78.9
Test of Allah	0.8	0.3
Don't know	-	.3
Uzbekistan		
YES, I believe the pandemic is being made up and the containment measure are an overreaction.	14.3	9.1
NO, I do not believe the pandemic is made up.	84.8	88.8
Don't know	1.0	2.1

In terms of gender, there are more covid dissidents among men in the Kyrgyz Republic - 19.7%, Mongolia - 18.6% and Uzbekistan - 15.2%, while there are more skeptics among women in Pakistan - 49.1% (Table 38).

Table 38. The social media are full of stories telling that the Corona pandemic is a hoax and that all the lockdown measures are a hysteric overreaction. Do you believe the corona pandemic is being made up? (%, gender of respondents)

	Male	*Female*
Georgia		
YES, I believe the pandemic is being made up and the containment measure are an overreaction.	11.0	9.5
NO, I do not believe the pandemic is made up.	81.4	86.0
Other	2.3	1.6
Don't know	5.2	3.0
Kazakhstan		
YES, I believe the pandemic is being made up and the containment measure are an overreaction.	17.9	16.3
NO, I do not believe the pandemic is made up.	80.8	81.4
Don't know	1.3	2.4
Kyrgyz Republic		
YES, I believe the pandemic is being made up and the containment measure are an overreaction.	19.7	15.2
NO, I do not believe the pandemic is made up.	78.6	83.1
Other	0.8	1.3
Don't know	0.9	0.4
Mongolia		
YES, I believe the pandemic is being made up and the containment measure are an overreaction.	18.6	11.5
NO, I do not believe the pandemic is made up.	81.4	88.5
Pakistan		
YES, I believe the pandemic is being made up and the containment measure are an overreaction.	44.2	49.1
NO, I do not believe the pandemic is made up.	55.6	48.4
Don't know	0.2	2.5
Tajikistan		
YES, I believe the pandemic is being made up and the containment measure are an overreaction.	21.0	19.4
NO, I do not believe the pandemic is made up.	78.4	80.0
Other	0.2	0.6
Don't know	0.4	-
Uzbekistan		
YES, I believe the pandemic is being made up and the containment measure are an overreaction.	15.2	8.5
NO, I do not believe the pandemic is made up.	84.0	89.3
Don't know	0.8	2.2

Trust in medical advice for COVID-19 prevention and treatment

SARS-CoV-2 is a new type of coronavirus, which has not been encountered before and therefore there is still no full accurate and clear picture of its treatment, moreover, the wave of fake news regarding the virus has shattered public confidence in COVID-19 treatment and prevention measures. However:

- ✓ **83.6%** of Uzbekistani respondents show confidence in medical personnel, 5.6% to relatives and friends, 10.0% do not trust anyone;
- ✓ **82.6%** of the surveyed residents of Mongolia also rely on doctors or nurses, 11.8% singled out relatives and friends, 2.6% answered that they did not trust anyone;
- ✓ **81.4%** of respondents from Georgia trust doctors or nurses, 4.4% mentioned relatives and friends, 4.8% do not trust anyone;
- ✓ medical personnel are trusted by **75.1%** of Tajikistani respondents, relatives and friends - by 5.5%, religious mentors - by 2.9%, 13.0% do not trust anyone in the prevention and treatment of coronavirus,

✓ **72.7%** of survey participants from the Kyrgyz Republic trust doctors and nurses, 9.1% relatives and friends, 7.7% of respondents do not trust anyone, 7.2% found it difficult to answer;

✓ **67.7%** of the polled citizens of Kazakhstan tend to trust medical personnel, 8.3% - relatives and friends, 17% do not trust anyone, 6.4% found it difficult to answer the question;

✓ **40.9%** of Pakistani participants in the survey express confidence in the recommendations of doctors or nurses, 15.6% - to relatives and friends, 7.2% trust religious leaders, mentors, 34% of survey participants do not trust anyone in matters of prevention and treatment.

According to the results of the survey, the majority of respondents from the seven participating countries trust the medical advice on the prevention and treatment of COVID-19 by medical professionals. On average, over the sample for all seven countries, **72%** trust doctors and nurses (Table 39).

Table 39. Whose medical advice on prevention or treatment for COVID-19 (coronavirus) do you trust the most? (%)

Answer options	***Georgia***	***Kazakhstan***	***Kyrgyz Republic***	***Mongolia***	***Pakistan***	***Tajikistan***	***Uzbekistan***	***7 COUNTRIES***
Doctors or nurses	**81.4**	**67.7**	**72.7**	**82.6**	**40.9**	**75.1**	**83.6**	**72.0**
Family and friends	4.4	8.3	9.1	11.8	15.6	5.5	5.6	8.6
Celebrities	1.2	0.3	0.2	0.6	0.9	0.9	0.3	0.6
Fortunetellers, healers, palm readers	0.1	0.2	0.4	0.1	0.3	0.3	-	0.2
Religious mentor	1.8	0.1	1.9	0.1	7.2	2.9	0.5	2.1
Other	2.6	-	0.7	0.8	-	-	-	0.6
I don't trust anyone	**4.8**	**17.0**	**7.7**	**2.6**	**34.0**	**13.0**	**10.0**	**12.7**
Don't know	3.7	6.4	7.2	1.4	1.1	2.3	-	3.2
Total	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***

Female respondents are even more likely to trust the recommendations of medical professionals, with the exception of Pakistan. Pakistani male respondents trust doctors more for prevention and treatment (52.2%) than women (30.8%). 44.6% of Pakistani female respondents trust nobody, 9.6% trust religious teachers (Table 40).

Table 40. Whose medical advice on prevention or treatment for COVID-19 (coronavirus) do you trust the most? (%, gender of respondents)

	Male	*Female*
Georgia		
Family and friends	6.0	3.0
Religious mentor	2.8	0.9
Doctors or nurses	77.1	85.1
Celebrities	1.5	0.9
Fortunetellers, healers, palm readers	0.2	-
Other	5.2	4.5
I don't trust anyone	2.3	2.8
Don't know	4.8	2.8
Kazakhstan		
Family and friends	10.6	6.4
Religious mentor	0.2	-
Doctors or nurses	65.3	69.7
Celebrities	0.4	0.2
Fortunetellers, healers, palm readers	-	0.4
I don't trust anyone	17.7	16.5
Don't know	5.7	6.9
Kyrgyz Republic		
Family and friends	10.2	7.8
Religious mentor	1.9	1.9
Doctors or nurses	70.0	75.7
Celebrities	0.4	-
Fortunetellers, healers, palm readers	0.6	0.2
Other	0.8	0.8
I don't trust anyone	8.9	6.3
Don't know	7.2	7.2
Mongolia		
Family and friends	14.2	9.5
Religious mentor	-	0.2
Doctors or nurses	79.4	85.8
Celebrities	0.8	0.4
Fortunetellers, healers, palm readers	0.2	-
Other	3.0	2.2
I don't trust anyone	0.2	1.4
Don't know	2.2	0.6
Pakistan		
Family and friends	14.4	16.6
Religious mentor	9.6	5.1
Doctors or nurses	52.2	30.8
Celebrities	1.3	0.6
Fortunetellers, healers, palm readers	0.2	0.4
I don't trust anyone	22.1	44.6
Don't know	0.2	1.9
Tajikistan		
Family and friends	5.8	5.2
Religious mentor	3.4	2.4
Doctors or nurses	73.8	76.4
Celebrities	0.6	1.2
Fortunetellers, healers, palm readers	0.2	0.4
I don't trust anyone	13.3	12.7
Don't know	3.0	1.6
Uzbekistan		
Family and friends	4.9	6.3
Religious mentor	0.8	0.2
Doctors or nurses	82.0	85.2
Celebrities	0.4	0.2
I don't trust anyone	11.9	8.1
Don't know	-	-

Trust in health care workers does not depend on the respondent's marital status (Table 41)

Table 41. Whose medical advice on prevention or treatment for COVID-19 (coronavirus) do you trust the most? (%, marital status of respondents)

	Georgia		Kazakhstan		Kyrgyz Republic		Mongolia		Pakistan		Tajikistan		Uzbekistan	
	Married	Single	Married	Single	Married	Single	Married	Single	Married	Single	Married	Single	Married	Single
Family and friends	3.6	5.9	8.1	8.8	9.8	7.3	10.8	14.2	13.7	25.5	5.4	5.8	5.4	6.4
Religious mentor	2.1	1.2	0.1	-	1.4	3.3	0.1	-	7.4	6.1	2.4	3.8	0.4	0.8
Doctors or nurses	81.4	81.4	68.0	67.0	72.5	73.3	83.6	80.2	41.4	38.2	75.6	74.2	84.7	80.1
Celebrities	1.5	0.6	0.3	0.3	0.1	0.4	0.8	-	1.0	0.6	0.9	0.8	0.3	0.4
Fortunetellers, healers, palm readers	-	0.3	0.3	-	0.1	1.1	0.1	-	0.4	-	0.3	0.3	-	-
Other	2.6	2.7	-	-	0.7	1.1	0.7	1.0	-	-	-	-	-	-
I don't trust anyone	4.7	5.0	16.6	17.9	8.1	6.6	2.8	2.1	35.0	29.1	13.2	12.6	9.3	12.3
Don't know	4.1	3.0	6.6	6.0	7.3	7.0	1.0	2.4	1.2	0.6	2.2	2.5	-	-
Total	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***

In most countries, attitudes among employed and non-employed respondents towards medical advice from doctors and nurses are the same. An exception is the answers of respondents from Pakistan, where recommendations from medical professionals are more trusted by employed respondents (50.4%) than non-employed (29.1%). Also, similar answers were given by respondents from Tajikistan: 78.6% of employed respondents trust the opinions of medical personnel, while 71.0% of respondents who do not work for various reasons at the time of the survey trust doctors. The opposite situation is in the answers of respondents from Uzbekistan: among those who do not work, the percentage of those who trust doctors is higher than among those who have a job: 89.7% and 80.8%, respectively (Table 42).

Table 42. Whose medical advice on prevention or treatment for COVID-19 (coronavirus) do you trust the most? (%, working status of respondents)

	Georgia		Kazakhstan		Kyrgyz Republic		Mongolia		Pakistan		Tajikistan		Uzbekistan	
	Employed	*Non-employed*	*Employed*	*Non-employed*	*Employed*	*Non-employed*	*Employed*	*Non-employed*	*Employed*	*Non-employed*	*Employed*	*Non-employed*	*Employed*	*Non-employed*
Family and friends	2.3	5.8	8.2	8.4	9.7	7.7	11.5	12.4	13.7	18.0	4.4	6.8	6.7	3.2
Religious mentor	2.0	1.6	0.1	-	1.7	2.4	-	0.3	9.4	4.5	2.2	3.7	0.4	0.6
Doctors or nurses	83.7	79.9	68.6	65.6	72.1	74.1	83.1	81.4	50.4	29.1	78.6	71.0	80.8	89.7
Celebrities	1.8	0.8	0.3	0.3	0.1	0.3	0.3	1.4	1.1	0.7	0.9	0.9	0.3	0.3
Fortunetellers, healers, palm readers	-	0.2	0.1	0.3	0.4	0.3	-	0.3	0.2	0.5	0.4	0.2	-	-
Other	2.5	2.6	-	-	0.8	0.7	1.1	-	-	-	-	-	-	-
I don't trust anyone	4.1	5.3	15.9	19.5	7.4	8.4	2.7	2.4	24.6	45.7	11.4	14.8	11.8	6.1
Don't know	3.6	3.8	6.6	5.8	7.7	5.9	1.3	1.7	0.7	1.6	2.0	2.6	-	-

**Non-employed*

APPENDIX

INFORMATION ABOUT THE CAREC INSTITUTE

About CAREC (www.carecinstitute.org). The Central Asia Regional Economic Cooperation (CAREC) Institute is an intergovernmental organization, jointly governed by 11 member countries, with an international organization status in the PRC, dedicated to promoting economic cooperation among CAREC members through research, capacity building, policy advocacy, and partnerships. The Institute acts as a knowledge connector among the five CAREC clusters - economic and financial stability; trade, tourism, and economic corridors; infrastructure and economic connectivity; agriculture and water; and human development - to ensure coherence in design and implementation of policies, programs, and projects to promote regional economic cooperation and integration, where integration is defined as a strategy that promotes the benefits of collective and collaborative activities among member countries through economies of scale, more vigorous intra-regional trade, expansion of markets, shared information platforms for exchange, and harmonized frameworks for social and economic interaction.

INFORMATION ABOUT THE PUBLIC OPINION RESEARCH INSTITUTE

About Public Opinion Research Institute (www.opinions.kz). The Public Opinion Research Institute (Nur-Sultan, Kazakhstan) was established in 2013 by a group of sociologists with professional experience of more than 20 years. The Institute specializes in the study of public opinion, conducts marketing and sociological studies, both in Kazakhstan and in other countries of the world. Research Institute staff members are members of international professional networks - European Society of Marketing Research Professionals ESOMAR (www.esomar.org), World Association for Public Opinion Research (WAPOR), Association of Turkic Sociologists, WVS (World Values Survey), European Society for Central Asian Studies (ESCAS) and etc. The Institute takes part in following projects: World Values Survey (7th wave), Values in a Crisis survey, Youth in Central Asia of the Fredrich Ebert Foundation (1st wave), Turkbarometer of the International Turkic Academy, PIAAC (Program for the International Assessment of Adult Competences, OECD). For more than 15 years, the specialists of the Institute have been conducting surveys of the Kazakh diaspora in Central Asia, the Commonwealth of Independent States (CIS), the People's Republic of China, Mongolia, Saudi Arabia, Turkey, the USA, Western Europe, etc.

QUESTIONNAIRE

Nur-Sultan, 010000,

Kazakhstan
Tel. +7 (7172) 783559
Public Opinion
Research Institute

Country code: _____ Questionnaire no._____
Oblast_____
City_____ Village_____
Type of settlement_____

Hello! My name is/last name, name, patronymic/. I represent the Public Opinion Research Institute. Our organization conducts public opinion surveys on various topics. Currently we are conducting a survey regarding the spread of coronavirus in the world (COVID-19, SARS-CoV-2). This is an international research project that is being carried out in several countries around the world. People for the survey are selected as per the special mathematical procedure. The opinions expressed during survey will be used only in a generalized form after computer processing. We ask you to take a little time and answer our questions. Thank you for cooperation!

A0. Date of interview (day / month)
_____/_____

A1. INTERVIEW LANGUAGE:

1. Kazakh
2. Russian

EXPECTATIONS FOR THE COVID-19 IMPACT

[1] What is your current health status compared to 2019? *(one answer)*

1. Better
2. Worse
3. Same

(9) Don't know/DO NOT READ/

---

[2] How would you describe the financial situation in your household compared to 2019? *(one answer)*

1. Better
2. Worse
3. Same

(9) Don't know /DO NOT READ/

---

[3] What do you think, will the economic challenges for your country be more difficult or easier to overcome in 2021 compared to 2020? *(one answer)*

1. More difficult
2. Easier to overcome
3. Same

(9) Don't know /DO NOT READ/

QUESTIONS ABOUT COVID-19 DEGREE OF CONCERN

[4.] Please, tell us for each of the following economic experiences whether or not this happened to you during the coronavirus pandemic? *(one answer in each line)*

	YES: it happened to me	NO: it DID NOT happen to me
a. I lost my job	1	2
b. I had to go on unpaid leave	1	2
c. I had to close my business	1	2
d. I have been reduced to part time work.	1	2
e. I must work from home (work remotely).	1	2
f. I receive money from an aid package.	1	2
g. I go to work as before.	1	2

h. I had to take my kids out of kindergarten (answer those who have children who attended kindergarten)	1	2
i. Couldn't leave for/return from labor migration	1	2
j. My employer didn't pay my salary.	1	2

[5] How afraid are you that you or your loved ones get sick and suffer severely from the coronavirus? *(one answer)*

1. Very afraid
2. Quite afraid
3. Neither, nor
4. Not very afraid
5. Not at all afraid

[6] How scared are you that you or your loved ones will suffer from the economic recession following the coronavirus? *(one answer)*

1. Very afraid
2. Quite afraid
3. Neither, nor
4. Not very afraid
5. Not at all afraid

[7] The social media are full of stories telling that the Corona pandemic is a hoax and that all the lockdown measures are a hysteric overreaction. Do you believe the corona pandemic is being made up? *(one answer)*

1. YES, I believe the pandemic is being made up and the containment measure are an overreaction.
2. NO, I do not believe the pandemic is made up.
3. Others (specify)_____

EXPERIENCE WITH COVID-19

[8] Have you yourself been infected with COVID-19?*(one answer)*

1. Yes, I was sick with COVID-19→ *GO TO QUESTION 9*
2. Yes, I am now sick with COVID-19→ *GO TO QUESTION 9*
3. I don't know for sure, but I think I was sick without symptoms → *GO TO QUESTION 10*
4. No → *GO TO QUESTION 11*

[9] How is your COVID-19 (coronavirus) disease going or was going? *(one answer)*

1. I was (am) sick without symptoms
2. I had (have) COVID-19 (coronavirus), but in a rather light form
3. I had (have) COVID-19 (coronavirus) of middle severity
4. I had (have) COVID-19 (coronavirus) of middle severity, using oxygen therapy
5. I had (have) severe COVID-19 (coronavirus), using oxygen therapy
6. Others (specify)_____

[10] How is or was your COVID-19 (coronavirus) treatment? *(one answer)*

1. I am/was treated at home, on my own
2. I am/was treated at home under the supervision of doctors
3. I am/was in the hospital
4. I am visiting/visited a day hospital
5. I do not/did not receive treatment, but I assume that I was sick without symptoms
6. I am/was in a COVID-19 hotel
7. Others (specify)_____

[11] Have you been tested for COVID-19 (coronavirus) or antibodies? *(one answer)*

1. Yes, once
2. Yes, several times
3. No, I have not been tested for coronavirus
4. Others (specify)_____

[12] Did your family members, relatives, friends, colleagues had COVID-19 (coronavirus)? *(one answer)*

1. Yes, they had
2. No, they did not have

(9) Don't know/DO NOT READ/

[13] Please tell me how do you follow safety measures (wearing masks, using sanitizers, avoiding crowded places) to protect yourself from infection? *(one answer)*

1. Follow strictly
2. Follow, but not all of them
3. Do not follow

[14] How often do you search and read information on the COVID-19 (coronavirus) pandemic in the media, social networks? *(one answer)*

1. Very often
2. Often
3. Sometimes
4. Rarely
5. Never

[15] Whose medical advice on prevention or treatment for COVID-19 (coronavirus) do you trust the most? *(one answer)*

1. Family and friends
2. Religious mentor
3. Doctors or nurses
4. Celebrities
5. Fortunetellers, healers, palm readers
6. Others (who exactly?)_____
7. I don't trust anyone

(99) Don't know/DO NOT READ/

ATTITUDE TOWARDS VACCINATION

[16] In your opinion, how effective are vaccinations in general? *(one answer)*

1. Very effective
2. Quite effective
3. Not very effective
4. Completely ineffective

(9) Don't know /DO NOT READ/

[17] Please tell me, over the past 3 years, have you received any vaccinations? *(one answer)*

1. Yes
2. No

CORONAVIRUS VACCINE

[18] Currently, vaccines against coronavirus are being developed in the world. Have you ever heard of a coronavirus vaccine before today? *(one answer)*

1. Yes→ *GO TO QUESTION 19*
2. No → *GO TO QUESTION 20*

(9) Don't know/DO NOT READ/ → GO TO QUESTION 20

---

[19] Where do you <u>most often</u> get information about coronavirus vaccines? *(three answers allowed)*

1. From other people, relatives, friends, acquaintances or work colleagues
2. From TV programs
3. From radio programs
4. From newspapers, magazines
5. From Internet web-sites
6. From social networks
7. From medical staff-doctors, nurses, etc.
8. Others (specify*)* _____

(99) Don't know/DO NOT READ/

---

[20] If in your country coronavirus vaccination will be for FREE and your country's scientists recognize the vaccine as safe, would you and your family members get vaccinated? *(one answer)*

1. Definitely → *GO TO QUESTION 21*
2. Rather yes → *GO TO QUESTION 21*
3. Rather not→ *GO TO QUESTION 22*
4. Definitely not → *GO TO QUESTION 22*
5. I am already vaccinated → *GO TO QUESTION 21*

(9) Don't know/DO NOT READ/→ GO TO QUESTION 23

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[21] What reasons <u>WILL MAKE YOU</u> / <u>MADE YOU GO</u> FOR THE CORONA VIRUS (COVID-19) VACCINATION? *(three answers allowed)*

1. I want/wanted to protect my family
2. I want/wanted to protect my community
3. I want/wanted to protect myself
4. I have a chronic illness like asthma or diabetes, so it is important for me to get the COVID-19 coronavirus vaccine
5. My doctor recommends vaccination
6. This is the best way to avoid a serious coronavirus disease
7. It will make me feel safe in the company of other people
8. Life will not return to normal until most people get vaccinated
9. I am/was obligated (at work/at the place of study/etc.)
10. Others (specify)_____

After this question go to question 23

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[22] Which of the following are reasons you <u>WOULD NOT GET</u> <u>/you DID NOT GET</u> a coronavirus vaccination? *(three answers allowed)*

1 I am allergic to vaccines
2. I'm not concerned about getting seriously ill from the coronavirus

3. I won't/didn't have time to get vaccinated
4. I am concerned about side effects from the vaccine
5. There is no vaccination possibility close to where I live
6. COVID-19 (coronavirus) is not as serious as some people say
7. Natural immunity is better than vaccine-induced immunity
8. Vaccines are developed to hasty and have not been sufficiently tested
9. I have already been ill and have antibodies, and don't think I can get sick now
10. My religious beliefs do not allow vaccination
11. I don't believe the vaccine will effectively protect against disease
12. Other - please specify_____

[23] Do you think it is necessary to vaccinate the entire population or only high-risk groups - medical workers, doctors, teachers, salespeople, fire and police officers, etc.? *(one answer allowed)*

1. All population
2. High-risk groups - medical workers, doctors, teachers, salespeople, fire and police officers, etc.
3. Others (specify)_____

(9) Don't know/DO NOT READ/

[24] Do you think the vaccines developed in the world are safe? *(one answer)*

1. Yes, all vaccines that have been tested by the countries' responsible agencies and are approved as safe
2. Safety depends on the country of origin of the vaccine
3. It will still take quite a long time until vaccines are tested enough to be really regarded as safe
4. No, you can't trust vaccines
5. Others (specify)_____

[25] If you will have to pay for COVID-19 (coronavirus) vaccination more than 5$ and vaccination is not obligatory, Would you still get vaccinated anyway or Would use refuse vaccination? *(one answer allowed)*

1. I would still get vaccinated
2. I would refuse vaccination
3. I am already vaccinated against the coronavirus

(9) Don't know/DO NOT READ/

ATTITUDE TOWARD CONTAINMENT MEASURES

[26] In your opinion, which of the following measures are needed to counter new waves of the COVID-19 (coronavirus) pandemic if vaccination is not effective? *(answers on each line)*

	Yes, this is necessary	No, this is unnecessary
1. Requiring people to wear face masks when they are around other people outside their homes	1	2
2. Requiring people to have their temperature checked before entering businesses or crowded places	1	2
3. Widespread and fast testing	1	2
4. Requiring people to be at least 1.5 meters apart in places such as workplaces and restaurants or in other similar places	1	2
5. Closure of schools and kindergartens	1	2
6. Requiring people to use technology to track location and exposure to the coronavirus	1	2

7. Going back to the complete lockdown with strict curfews	1	2
8. Regular treatment of the premises with disinfectants	1	2
9. Permanent hand disinfection	1	2

[27] Do you believe scientific developments will help humanity build immunity against COVID-19 in the future? *(one answer allowed)*

1. Yes, I believe, scientific developments will help humanity never get sick with COVID-19
2. Rather, I believe scientific developments will help most people to not get sick with COVID-19
3. I rather do not believe it, scientific developments will not be able to fully protect people from COVID-19
4. No, I don't believe it, the role of science is overrated

(9) Do not know / DO NOT READ OUT /

SOCIO-DEMOGRAPHIC BLOCK

D1. What is your gender?

1. Male
2. Female

D2. How old are you?

SPECIFY _____ years

D3. Nationality?

1. Kazakh
2. Russian
3. Others (specify)_____

D4. Please indicate your marital status? *(one answer)*

1. I am in a registered marriage
2. I am not in a registered marriage, but I live with my husband/wife
3. Divorced
4. Not married (single)
5. Widowed

D5. How many people live permanently in your household? *Please consider all adults and children, and do not forget to include yourself./SPECIFY/*

!_____!

(98) Refuse to answer */DO NOT READ/*

D6. What is the highest level of education you received? I mean only the completed level of education. *(one answer allowed)*

1. No formal education (those who have no education, but can read and write)
2. Preschool (kindergarten)
3. Primary (grades1 to 4)
4. Basic secondary (grades 5 to 9)
5. General secondary (graduated from secondary school, lyceum, gymnasium, etc., and received a certificate of secondary (complete) general education;)
6. Initial vocational (vocational school, workschool, etc.)

7. Vocational secondary (graduated from a technical school, specialized school (for example, medical, pedagogical), college, technical school- vocational enterprise or vocational technical school)
8. Incomplete higher education (students who are currently studying)
9. Higher (graduated from university: institute, academy, university, etc.)
10. Postgraduate education (completed postgraduate studies, doctoral studies, residency training and postgraduate military studies (regardless of a thesis defense)
11. Refuse to answer */DO NOT READ/*

D7. Are you currently employed or engaged in any kind of economic activity? *(one answer)*

1. Yes (full time)
2. Yes (part-time)
3. Casual work, seasonal work
4. No, I don't work

(8) Refuse to answer, no answer/DO NOT READ/

D8. Do you practice any religion? If so, which one? *(one answer)*

1. I don't practice any
2. Islam
3. Orthodox Christianity
4. Catholicism
5. Protestantism
6. Judaism
7. Hinduism
8. Buddhism
9. Shamanism
10. Confucianism
11. Taoism
12. Tengrianism
13. Non-religious beliefs
14. Another - Which one? _____

(98) Refuse to answer, no answer/DO NOT READ/

(99) Don't know/DO NOT READ/

D9. Please tell me which of the judgments characterizes the living standard of your family to the greatest extent? *(one answer)*

(1) We live in abundance; there is almost nothing we deny ourselves

(2) We live satisfactorily, we have everything we need

(3) For now we manage to make ends meet

(4) We cannot make ends meet, much we cannot afford

(5) We live in poverty, we deny ourselves even many essentials

(8) Refuse to answer, no answer/DO NOT READ/

CODE_____ INPUT _____

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