



# COVID-19 PANDEMIC IN KYRGYZSTAN

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## ABSTRACT

**Method :** In order to characterize the COVID-19 pandemic in Kyrgyzstan, a methodology has been taken from the newspapers, various sources which is social media including Facebook, Instagram and summary of the COVID-19 pandemic in Kyrgyzstan from newspapers, articles various published literature on a Google and research method .All data was collected from wordometer and from health websites.

**Results:** Data analysis showed that COVID-19 caused by SARS-Co V -2 which was first reported in Wuhan (China) in December 2019. The first case was reported on 18 March 2020 after a Kyrgyz national had returned from the Saudi Arabia.The Kyrgyz government has declared state of emergency to contain the spread of the virus.The Kyrgyzstan national vaccination program started in March 2021 and is using Sinopharm, Sinovac, Sputnik V, AstraZeneca, Pfizer and Moderna vaccines.

**Conclusions:** Results show that the COVID-19 pandemic has negatively impacted the Kyrgyz Republic, economic growth, health, education sector, trade development.The pandemic has caused disruptions to socio-economic disturbances in Kyrgyzstan.

**Keyword:** Kyrgyzstan,WHO, Indian, Age,COVID-19, Vaccine , Cases, Evacuation, Student ,Impact ,Pandemic , Symptoms , Cases , Recovery .

## INTRODUCTION

Corona-virus disease 2019 ( COVID-19) is caused due to SARS-Co V -2 and has been declared as global pandemic by the World Health Organisation(WHO) in March 2020. Cases of COVID-19 were first detected in China city of Wuhan in December 2019, and spread to other areas of Asia and then worldwide in early 2020. The World Health Organization declared the outbreak a public health emergency of international concern ( PHEIC) on 30 January 2020. On 11 March 2020, the World Health Organization declared a global pandemic due to the rapid spread of the novel COVID-19 virus, which was first reported in Wuhan (China) in December 2019.

In Central Asia, the first two cases of COVID-19, both of which were nationals of the Republic of Kazakhstan who arrived from the Federal Republic of Germany, were reported on 13 March 2020. In the Kyrgyz Republic, the first case was reported on 18 March 2020 after a Kyrgyz national had returned from Saudi Arabia.

According to the Ministry of Health of the Kyrgyz Republic, a total of 1,111 COVID-19 cases were reported in the Kyrgyz Republic as of 15 May 2020. Out of them, 745 have recovered and 14 have deceased. Early in the outbreak major cities had low levels of COVID-19 infection. In particular, on 9 April 2020, there were 36 confirmed cases in Bishkek, the capital, and 36 cases in Osh, the country's second largest city. Since the start of the outbreak, the largest number of cases has been reported in Osh and Jalal-Abad regions (from 98 and 86 cases on 9 April 2020 to 182 and 153 cases on 15 May 2020 in Osh and Jalalabad, respectively ) which is explained by how the virus entered the country.

In Naryn region, the infection was also spread by the pilgrims, with the rates of transmission among local population being very high (from 97 cases in early May to 163 cases on May 15), though this region is mostly mountainous and underpopulated. In May the number of confirmed cases in Bishkek and Osh cities has been increasing rapidly, reaching 302 cases in Bishkek and 118 in Osh as of May 15. Bishkek has the highest incidence rate. A total of 156 cases have been registered in Chui region, 24 cases in Batken region, and 13 in Issyk-Kul region. The only region where COVID-19 has not been reported yet is Talas region.

Among the infected, 13.5 percent (155 cases) are children under 15 years of age, 2.3 percent are children from 16 to 19 years old, 32.8 percent are young people aged 20 to 35 years, 32.9 percent are people aged 35 to 55 years, and 13.9 percent are people aged 55 years and over. Unexpectedly, in Kyrgyzstan the majority of cases are young people of working age, not the elderly. Nevertheless, as of 15 May 2020, the majority of the deceased from the coronavirus were older persons aged 60 years and over (3 above 80 years old, 3 in the 70-79 age range, 4 in the 61-69 age range, 3 in the 53-57 age range, and 1 person was 45 years old). The average age of death is 67.6 years.

Out of all cases reported in Kyrgyzstan as of 15 May 2020, 581 were women (52.3%) and 530 were men (47.7%). In Kyrgyzstan, gender-disaggregated data on coronavirus is published on a daily basis. On 16 March 2020, all preschools, schools and higher educational institutions were closed as a lockdown measure. The emergency situation (ES) with a curfew was declared for the period from 24 March to 11 May 2020. All public transport and taxi services were suspended and all public catering, colleges trade and service businesses were closed (the majority of businesses and organizations, except for food stores and pharmacies, hospitals, switched to work from home).

The Kyrgyz government has declared a state of emergency to contain the spread of the virus. The pandemic has caused disruptions to socio-economic disturbances in Kyrgyzstan. The main external and internal causes of the disturbances are External closing borders, trade measures (bans on the export and import of goods and products), prices on the international market and the consequences of the pandemic in other countries. Internal :health effects, quarantine, exchange rate disturbance; some depreciation and other measures taken by the government of Kyrgyzstan.



## Active Cases in Kyrgyzstan

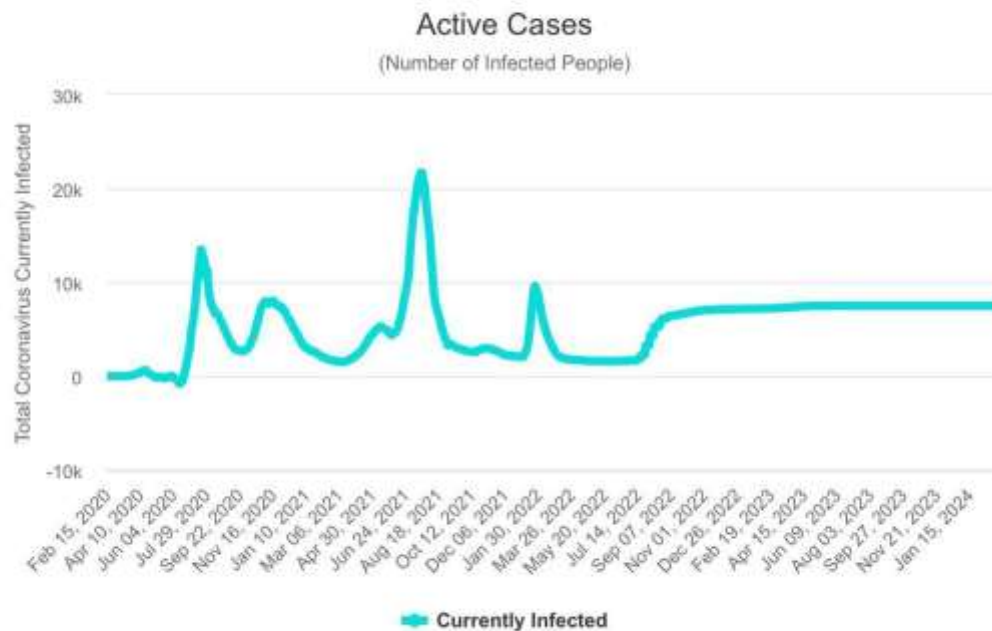


Fig1.Total COVID-19 cases from Feb15,2020 to jan15,2024

## HOW DID COVID-19 START ?

The disease appears to have originated from a Wuhan seafood market where wild animals, including marmots, birds, rabbits, bats and snakes, are traded illegally. Coronaviruses are known to jump from animals to humans, so it's thought that the first people infected with the disease – a group primarily made up of stallholders from the seafood market – contracted it from contact with animals.

The hunt for the animal source of Covid-19 is still unknown, although there are some strong contenders. A team of virologists at the Wuhan Institute for Virology released a detailed paper showing that the new coronaviruses' genetic makeup is 96 per cent identical to that of a coronavirus found in bats, while a study published on March 26 argues that genetic sequences of coronavirus in pangolins are between 88.5 and 92.4 percent similar to the human virus. Some early cases of Covid-19, however, appear to have inflicted people with no link to the Wuhan market at all, suggesting that the initial route of human infection may pre-date the market cases.

The Wuhan market was shut down for inspection and cleaning on January 1, but by then it appears that Covid-19 was already starting to spread beyond the market itself.

## WHAT EXACTLY IS COVID-19 ?

Coronaviruses are a large group of viruses that are known to infect both humans and animals, and in humans cause respiratory illness that range from common colds to much more serious infections. The most well-known case of a coronavirus epidemic was Severe Acute Respiratory Syndrome (Sars), which, after first being detected in southern China in 2002, went on to affect 26 countries and resulted in more than 8,000 cases and 774 deaths.

While the cause of the current outbreak was initially unknown, on January 7 Chinese health authorities identified that it was caused by a strain of coronavirus that hadn't been encountered in humans before. Five days

later the Chinese government shared the genetic sequence of the virus so that other countries could develop their own diagnostic kits. That virus is now called Sars-CoV-2.

Although symptoms of coronaviruses are often mild – the most common symptoms are a fever and dry cough – in some cases they lead to more serious respiratory tract illness including pneumonia and bronchitis. These can be particularly dangerous in older patients, or people who have existing health conditions, and this appears to be the case with Covid-19. A study of 44,415 early Chinese Covid-19 patients found that 81 per cent of people with confirmed infections experienced only mild symptoms.

Of the remaining cases, 14 per cent were in a severe condition while five per cent of people were critical cases, suffering from respiratory failure, septic shock or multiple organ failure. In the Chinese study, 2.3 per cent of all confirmed cases died, although the actual death rate is probably much lower as many more people will have been infected with the virus than tested positive.

## HOW FAR AS IT SPREAD

China felt the initial brunt of the Covid-19 epidemic. At the peak of its outbreak in mid-February, the country saw more than 5,000 cases in a single day. As of May 27, Chinese health authorities had acknowledged over 84,103 cases and 4,638 deaths – most of them within the province of Hubei. Since March, however, the country has seen a remarkable slowdown. On March 17, China recorded just 39 new cases of the virus. Most of the country's new cases are imported from elsewhere in the world – for now at least, it appears that China has its outbreak under control.

But while things were slowing down in China, the outbreak started picking up in the rest of the world. There are now confirmed cases in at least 200 countries and territories. The US has seen the highest number of cases. The country – which has been criticized for its slow rollout of testing and confused approach to the crisis – now has 1,681,418 confirmed infections and 98,929 deaths. With 370,680 confirmed cases and 3,807 deaths, Russia's mortality rate appears to be particularly low. The true death toll may be underreported because the country's statistics only include the deaths of people directly attributed to Covid-19.

## WHO DECLARED COVID AS PANDEMIC

On March 11 the WHO officially declared the Covid-19 outbreak a pandemic. "WHO has been assessing this outbreak around the clock and we are deeply concerned both by the alarming levels of spread and severity, and by the alarming levels of inaction," said its director-general Tedros Adhanom Ghebreyesus. Although the WHO designated Covid-19 a "public health emergency of international concern" (PHEIC) on January 30, it had been reluctant to call it a pandemic. "Pandemic is not a word to use lightly or carelessly. It is a word that, if misused, can cause unreasonable fear, or unjustified acceptance that the fight is over, leading to unnecessary suffering and death," Adhanom said.

## COVID-19 VACCINE

The FDA gives emergency use authorization to two mRNA COVID-19 vaccines, the Pfizer-BioNTech and the Moderna COVID-19 vaccines. Because there is an urgent need for COVID-19 vaccines and the FDA's vaccine approval process can take months to years, the FDA first gave emergency use authorization to COVID-19 vaccines based on less data than is normally required. The data must show that the vaccines are safe and effective before the FDA can give emergency use authorization or approval. Vaccines have gone through — and continue to go through — extensive safety monitoring. Millions of COVID-19 vaccines have been given since December 2020.

The FDA gives emergency use authorization to the Janssen/Johnson & Johnson COVID-19 vaccine. The FDA approves the Pfizer-BioNTech COVID-19 vaccine, now called Comirnaty, to prevent COVID-19 in people aged 16 and older. The FDA also authorizes the Pfizer-BioNTech vaccine for children ages 5 through 15. Researchers continue to study and develop several other COVID-19 vaccines. Many COVID-19 vaccines were in clinical trials.

First Covid-19 Vaccine Given to U.S. Public . A nurse in New York was among the first to receive the shot, and health workers throughout the U.S. were also set to receive the newly author.

Sputnik V (Russian: Спутник V, the brand name from the Russian Direct Investment Fund or RDIF) or Gam-COVID-Vac (Russian: Гам-КОВИД-Вак, the name under which it is legally registered and produced) is an adenovirus viral vector vaccine for COVID-19 developed by the Gamaleya Research Institute of Epidemiology and Microbiology in Russia. It is the world's first registered combination vector vaccine for the prevention of COVID-19, having been registered on 11 August 2020 by the Russian Ministry of Health.

The Sputnik V vaccine is based on an adenoviral vector, which involves using a modified version of the common cold to induce cells to produce the spike protein found on the coronavirus. The body then produces antibodies that target the protein, giving immune protection. The Russian-made jab is distinguished from Oxford/AstraZeneca's shot — which is based on similar technology — because it uses two different viruses in each shot.

The Russian-developed Sputnik V vaccine is 91.6 percent effective in protecting against symptomatic COVID-19 — on par with the currently approved Western jabs, according to a peer-reviewed study published in The Lancet Tuesday.

The data is from a Phase 3 study, with almost 20,000 participants across a number of hospitals and clinics in Russia taking part in the two-dose scheme. Starting from 21 days after the first dose, there were 16 cases of symptomatic COVID-19 in in the vaccine group versus 62 cases in the placebo group, researchers reported. There were no cases of "moderate or severe" coronavirus infections in the vaccinated group 21 days after the first dose.

The clinical trial also analyzed people over 60, finding the jab to be 91.8 percent effective, based on 2,144 participants.

At least 20,160 doses of Pfizer-BioNTech vaccine against COVID-19 have arrived in Kyrgyzstan. UNICEF Office in the Kyrgyz Republic reported.

They will be distributed to vaccination points across the country to make sure that the most vulnerable populations are immunized against COVID-19. The total value of the vaccines provided by the COVAX facility and delivered through UNICEF support is over \$136,000.

As part of supporting COVID-19 programs, 58 countries, including Kyrgyzstan, continue vaccination against COVID-19 in 2024. Even though COVID-19 is stable in the country, getting vaccinated means protecting yourself from complications and will significantly reduce health risks» said Zinat Beishebaeva, Head of the Department of Public Health, Licensing of Medical and Pharmaceutical Services of the Ministry of Health of Kyrgyzstan. This Pfizer-BioNTech COVID-19 vaccine is prequalified by the World Health Organization (WHO). It is considered safe and effective for all individuals aged 6 months and above. Earlier, UNICEF has procured specialized equipment for the National vaccine warehouse to support the country in receiving and storing Pfizer vaccines that require ultra-low temperatures, up to  $-80^{\circ}\text{C}$ .

## GENERAL SITUATIONS

As of February 9th, 2022, the total number of coronavirus infected people in Kyrgyzstan reached 199,714, among them 191,679 recovered, 2,913 people died.

As of February 9th, 2022, the total number of people vaccinated is 1,361,778 including those who got both shots 1,109,800.

The Kyrgyzstan national vaccination program started in March 2021 and is using Sinopharm, Sinovac, Sputnik V, AstraZeneca, Pfizer and Moderna vaccines.

Masks are required in public places, enclosed spaces and on public transport.

Stores, restaurants are open with adapted safety measures such as the use of hand sanitizers, face masks and social distancing.

Due to the new strain, the government of Kyrgyzstan introduced a requirement on December 1, 2021, that all those entering the country are required to provide a negative PCR test result. This requirement applies to both foreigners and citizens of the Kyrgyz Republic, despite receiving the vaccine.

## PREVENTIVE MEASURES

On 28 October 2021, the Asian Development Bank (ADB) has approved a \$25 million project to help the Government of the Kyrgyz Republic procure and deploy coronavirus disease (COVID-19) vaccines and strengthen the country's capacity to implement its vaccination program. ADB's assistance, comprising a \$12.5 million loan and a \$12.5 million grant, will support the Kyrgyz Republic's National Vaccination Deployment Plan by purchasing and delivering an estimated 1.7 million doses of COVID-19 vaccines, as well as syringes and safety boxes. It is financed through ADB's \$9 billion Asia Pacific Vaccine Access Facility launched in December 2020 to offer rapid and equitable vaccine-related support to ADB developing member countries. ADB's COVID-19 Vaccine Support Project will help vaccinate over 760,000 people, or about 12% of the Kyrgyz Republic's population.

The project builds on earlier support for the Kyrgyz Republic's COVID-19 response. In 2020, ADB provided \$50 million in loans and grants financing to support the government's health, social protection, and economic response measures, and \$20 million to help strengthen its healthcare sector. ADB also provided about \$1 million for the immediate procurement of medical supplies and personal protective equipment for health workers.

## ECONOMIC IMPACT

The Kyrgyz Republic has been significantly affected by the COVID-19 pandemic and was one of the hardest-hit countries in the region. The human cost of the lives lost is immeasurable, but the shock to the economy has also been substantial. The pandemic led to the contraction of output by 8.6 percent in 2020, a substantial loss of jobs, and an increase in poverty.

The labor intensive sectors of the economy were affected the most. Tourism fell by nearly 80 percent. Transportation, trade, and construction were also significantly impacted.

Inflation increased from 3 percent in 2019 to about 10 percent in 2020, primarily due to the depreciation of the currency and higher imported food prices. Public debt increased by 16 percentage points to 68 percent of the GDP in 2020, reflecting lower output, a higher fiscal deficit, and currency depreciation. According to World Bank estimates, poverty increased from 20 percent to 31 percent as incomes declined and unemployment rose.

At the end of 2021, the economy has been recovering from the lows of the 2020 recession and real GDP posted a small growth of 0.1 percent year-on-year in the first three-quarters of 2021. Recovery is constrained by a major contraction of gold exports (down 2.9 times year-on-year in January-August 2021, and that is despite Jerooy, the country's second-largest gold mining project, moving to production in March 2021).

On top of that, on 17 September 2021, the London Bullion Market Association (LBMA) temporarily suspended Kyrgyzaltyn, the country's state-owned gold producer, from its list of acceptable refiners. OBAMA's decision may also restrict Kyrgyzaltyn's access to other gold hubs, including Switzerland and New York.

On the positive side, GDP excluding Kumtor Gold Company grew by 3.6 percent year-on-year in the first three-quarters of 2021, driven by growth in retail trade, transport and communication. Agriculture was down by 5 percent year-on-year in the same period, due to drought. Services expanded by 5.7 percent year-on-year, enabled by the increased inflow of remittances (up 21 percent year-on-year in US dollar terms in the first eight months of 2021) and the easing of lockdown measures.

Real gross domestic product (GDP) expanded by 0.1 percent year-on-year in the first three-quarters of 2021. However, gold production and exports declined significantly. Remittances are surging, supporting domestic demand. Services are recovering, while labour-intensive agriculture contracted in January-September 2021 due to drought.

## TRADE BARRIERS

The Kyrgyz government has declared a state of emergency to contain the spread of the virus. The pandemic has caused disruptions to socio-economic disturbances in Kyrgyzstan. The main external and internal causes of the disturbances are External closing borders, trade measures (bans on the export and import of goods and products), prices on the international market and the consequences of the pandemic in other countries. Internal :health effects, quarantine, exchange rate disturbance; some depreciation and other measures taken by the government of Kyrgyzstan. An export ban on some food, medical and pharmaceutical products was introduced in November 2020.

The ban on food exports was extended in June 2021 for another six months. The list of restricted items include wheat, wheat flour, sugar, rice, vegetable oil and chicken eggs. In addition, imports of granulated sugar and refined vegetable oil were exempt from value added tax (VAT) until the end of August 2021 for private-sector companies, and until the end of December 2021 for the State Material Reserves Fund. Enterprises processing certain domestic agricultural inputs (such as flour from cereals, vegetables and nuts) only need to pay 20 percent VAT. Medicines and pharmaceutical products are also subject to a temporary export ban to ensure adequate domestic supply.

## FIRST CASES AND RESPONSES

Three citizens returning from a pilgrimage in Saudi Arabia were tested positive on March 18, 2020. Immediately after the first cases, Kyrgyzstan enforced containment measures to curb the virus spread by establishing COVID-19 in Kyrgyzstan: checkpoints in each city, temporarily closing cafes, shopping malls, and other entertainment places, permitting only essential services such as grocery stores, food markets, pharmacies and medical centers on March 22, 2020.

The large gatherings along with prayers at mosques and churches were banned. People were recommended to maintain a one-meter physical distance, refrain from physical contacts such as hand-shaking and encouraged the wearing of face masks. The government closed country borders to foreigners and barred export of medicines and medical equipment as well as some food products and other essential goods.

## DEMOGRAPHIC SITUATION

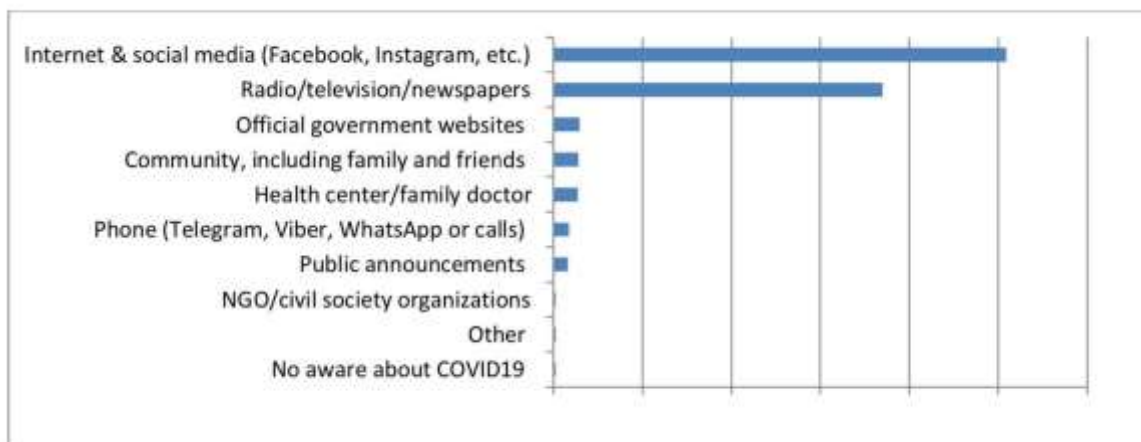
In Kyrgyzstan, there are more women than men, especially in older age groups. As of 1 January 2019, there were 3,219,866 women in Kyrgyzstan, compared to 3,169,634 men, i.e. 984 men per 1,000 women. The percentage is 50.4 percent for women and 49.6 percent for men. The prevalence of women begins around the age of 40 and there are almost twice as many women as men in the age group of 80 and over.

This imbalance is explained first of all by different age-specific mortality rates for men and women. The gender ratio varies across the country.

The proportion of women is higher in urban areas (52.4%), while in rural areas, where birth rates are higher, the situation is the opposite, with men slightly outnumbering women (50.7%). It also varies from region to region: the highest proportion of women is in Bishkek (53.2%) and the lowest one is in Batken and Naryn regions (49.1%). There are more older women than men in the country, so potentially they suffer more from coronavirus. The SARS-CoV-2-19 virus may infect people of any age. However, today's data show that two groups of people are at a higher risk of getting severe cases of COVID-19. These are older people and people with pre-existing health conditions<sup>5</sup>. In Kyrgyzstan, two thirds of the population aged 65 and above are women.

## COVID-19 AWARENESS

The two main sources of COVID-19 information for respondents were Internet and social media (51%) and mass media (radio, television and newspapers) (37%). Main sources of COVID-19 information (risks, preventative guidelines, coping strategies).



The diagram above shows how information sources vary depending on the age of respondents: the youngest age group uses the Internet mostly (75%) while the oldest age group relies on mass media like Facebook, Instagram etc (same percent).

## CONSEQUENCES OF COVID-19

1. the inflow of remittances will be sharply reduced due to a decrease in the number of Kyrgyz migrants working abroad and a decrease in their income;
2. a significant possible increase in concessional lending from international financial institutions and grants from donors;
3. reduction of tax and customs fees;



4. reduction of unprotected items in the KR budget. In fact, in half a year, they have already cut it by 10%. The funds saved from the reduction of unprotected items (1.2% of GDP) are used to finance health care expenditures and other higher priority needs.
5. Increase in health care costs. Almost 2.5 billion KGS (0.4% of GDP) compared to the approved initial budget of the country.
6. Appeal of the Government of the Kyrgyz Republic on debt restructuring to IFIs and bilateral donors.
7. Measures in fiscal and monetary policy;
8. general banking and financial crisis due to loan defaults (or its difficulties) from small and medium-sized businesses.

## Evacuations of Foreign students



More than 10,000 Indian students were studying in Kyrgyzstan in various Universities in Osh , Jalalabad, Bishkek , Kant region .In this operation Kyrgyzstan health services provided us medicine and food. The Indian government and Kyrgyzstan embassy helps us through out. During COVID-19 all students were evacuated by the Indian government through “Vande Bharat mission” .

## Post COVID-19 symptoms

The results of the study show the Post-COVID symptoms among students of high medical institutions in Kazakhstan and in Kyrgyz Republic. The pandemic of the new coronavirus infection demonstrates the importance of studying its impact on people of various ages. It is very important to understand the specifics of the manifestations of Post-COVID syndrome in students and among people. The purpose of the study

is to study the specifics of the clinical course of post-COVID symptoms in medical university students located in Almaty, Bishkek and Nur-Sultan.

Over 800 medical university students from the three cities of Central Asia (Almaty, Bishkek and Nur-Sultan) were surveyed through an online questionnaire using Google Forms. Based on the interview results, 315 students with post-COVID symptoms were selected along with the diagnostic studies supporting the diagnosis. A questionnaire was developed which includes demographic data, clinical and diagnostic traits of post-COVID syndrome among students. Distribution by gender : girls - 69.8% (n=220), boys - 30.2% (n=95).

The mean age of the interviewees was  $21 \pm 1.7$  years. Statistical processing was performed by using the SPSS-21 program. Outcome and discussion of findings. The study found that the majority of patients in the population suffered from mild and moderate forms of the disease, complaining of headache (79.7%), fatigue and weakness (76.8%), cough (67.3%) , muscular weakness and myalgia (62.2%),high temperature (57.8%), anxiety and depression (43.8%), memory impairment (42.-9%), hair loss (41%), taste disorders (31.4%), shortness of breath (27.9%). Among the total respondents, 36.2% had a chronic illness. At the time of the survey, 79.7% of the student population had already been vaccinated against COVID-19 infection.

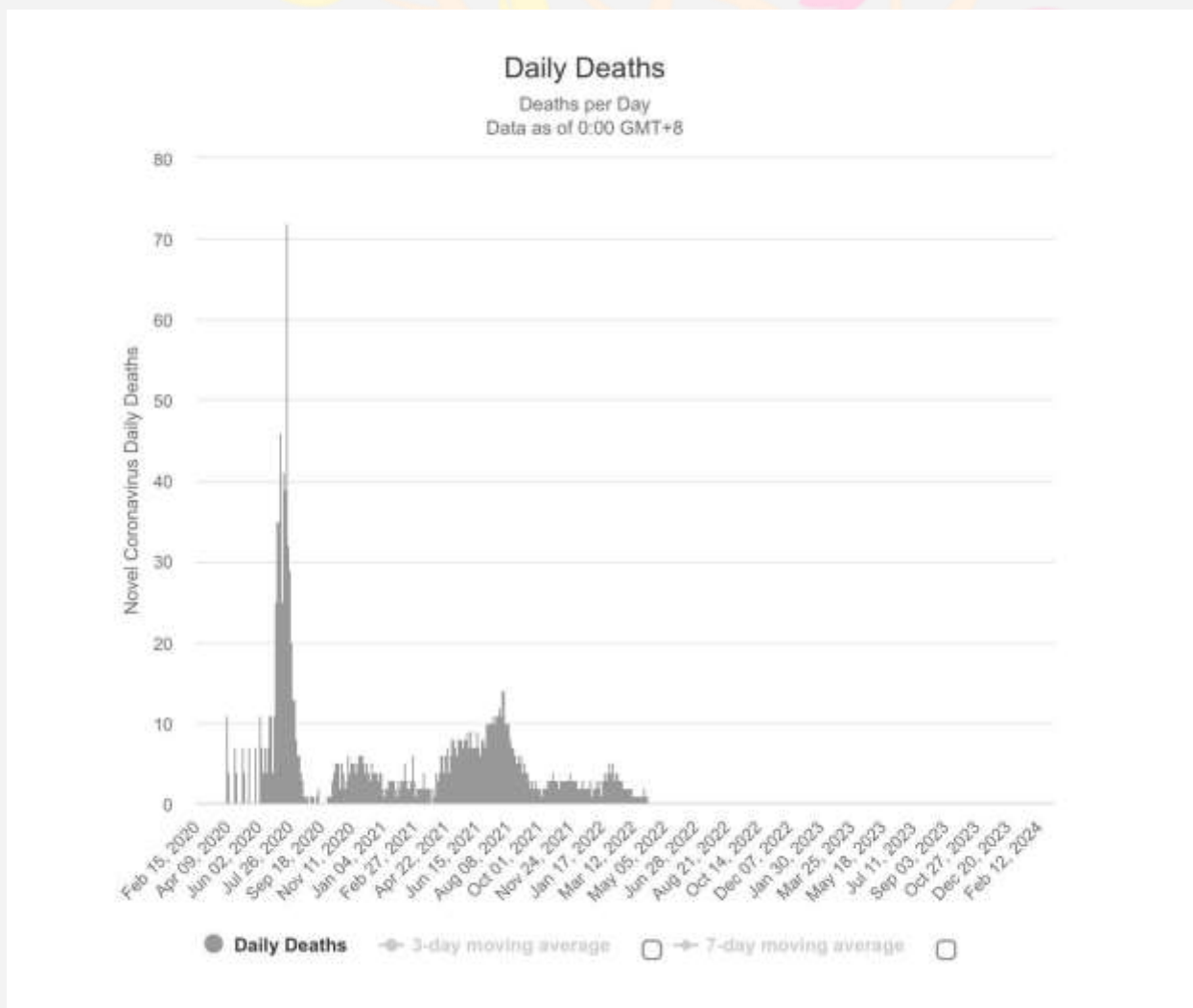


Fig2.Total number of deaths Feb 15,2020 to Feb 12,2024

## CONCLUSION

Provide a summary of the COVID-19 pandemic in Kyrgyzstan from newspapers articles various published literature on a Google and PubMed search using the term “SARS -CoV-2”, “COVID-19”, how does it start, total number of people affected in Kyrgyzstan till date from worldometer , Post - complications of COVID-19 .Data were collected by existing case records, data about the COVID-19 status, and other comorbidities of the subject and finally demographic data about COVID-19 impact in Kyrgyzstan.

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