FAILURE TO LAUNCH:

Kazakhstan's Stalled COVID-19 Vaccine Program

VACCINE TRANSPARENCY AND ACCOUNTABILITY

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VACCINE EQUITY, TRANSPARENCY, AND ACCOUNTABILITY IN ASIA:
Realities and Dilemmas

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PART I: INTRODUCTION

1.1. State and trends of COVID-19 and vaccination in Kazakhstan

Sparke and Levy (2022) define vaccine diplomacy as "the diverse bilateral deliveries of vaccines organized by the geopolitical considerations of countries strategically seeking various global and regional advantages in international relations". In this context, Kazakhstan's vaccine response, being both geographically and economically close to both Russia and China, was dominated by the various Russian and Chinese vaccines and the attached state concerns. There were attempts by Kazakhstan's government to introduce Western countries' vaccines. However, this failed to prove a viable alternative.

Figure 1: COVID-19 statistics in Kazakhstan

Source: Johns Hopkins University CSSE COVID-19 Data

The Kazakhstan President's decree dated 15 March 2020 (Adilet, 2020) imposed emergency conditions from 16 March to 30 April 2020, which was subsequently extended and ended on 11 May 2020. Information from the Johns Hopkins Coronavirus Resource Center website reflects that as of 20 February 2023, Kazakhstan had recorded 1,497,449 confirmed cases and 19,068 deaths from COVID-19 (Kazakhstan - COVID-19 Overview - Johns Hopkins, n.d.).

There were four waves of COVID-19 infections in Kazakhstan between July 2020 and July 2022. The government's data for infections is dubious, due to both its own limited data collection abilities and its desire to obfuscate and downplay the true numbers. However, the comparative severity of daily cases for each wave appears to track the pattern of the true numbers (i.e., the trend is correct but the volume is

underreported), and extrapolating from the trend could conceivably yield numbers closer to reality.

Table 1: Waves of new cases of COVID-19 in Kazakhstan

Waves	Time period	Maximum cases registered per day
Wave 1	July-August 2020	18,757
Wave 2	July-August 2021	16,122 (with extreme case of 66,121 on 23 July 2021)
Wave 3	January 2022	16,441
Wave 4	July 2022	6,323

Note: Author's own estimation based on Kazakhstan: WHO Coronavirus Disease (COVID-19) Dashboard With Vaccination Data. (n.d.).https://covid19.who.int/region/euro/country/kz/

There were four waves of infection in Kazakhstan. While the highest daily average was registered in Wave 1, it was in Waves 2 and 3 where the virus peaked and then subsided. WHO data shows that Kazakhstan's peak numbers of daily new cases in Waves 2 and 3 were reached on 20 July 2021 and on 15 January 2022, with more than 15,000 cases on the peak day of the second wave (Table 1). The 66,121 daily case high in Wave 2 was a piece of government statistical manipulation. The government had been tabulating COVID-19 cases under a separate ledger, for 'pneumonia', and on 23 July it released some of these statistics back into the main pool as a response to public pressure (Kenderdine 2020).

The deterioration of the situation was directly related to government policy. The lockdown was lifted in July 2021, and the Omicron strain spread rapidly amid increased local mobility, holiday travel, and insufficient adherence to preventive measures in January 2022 (Tonkopei, 2022).

The Ministry of Health (MOH) has officially registered eight vaccines for rollout (Medical and Pharmaceutical Control Committee, 2021), including the locally produced QazVac, three Russian-made, two Chinese-made, and one vaccine each from the UAE and Belgium. Being land-locked and situated between Russia and China, Kazakhstan's combination of common historical ties with Russia as a post-Soviet country and newfound economic dependence on China affected the diplomacy and policy direction of its vaccine rollout, where the most widely spread vaccines were those produced in Russia and China.

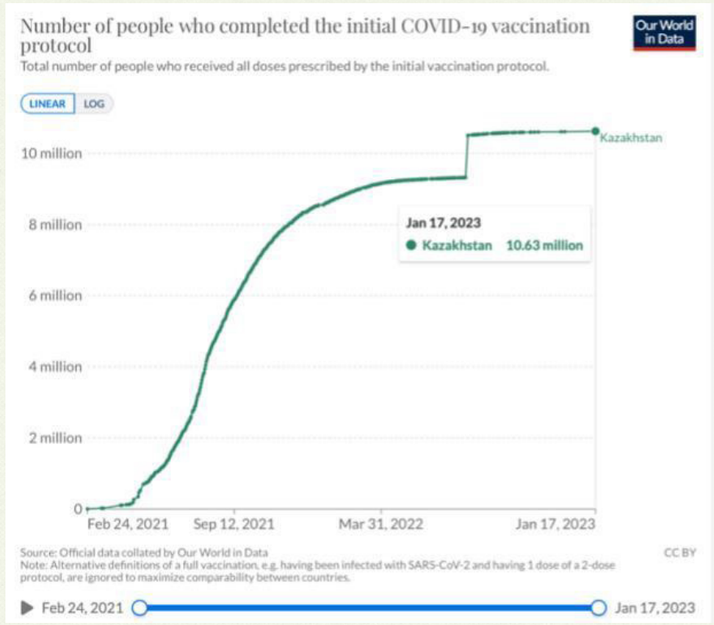
Table 2: Rollout of vaccines in Kazakhstan

Introduced	Vaccine	Manufacturer	Description
5 Jan 2021	QazVac (QazCovid)	Kazakhstan	• Inactivated vaccine against COVID-19 produced by the Republican State Enterprise • Not approved by the WHO
15 Feb 2021	Gam-COVID-Vac (Sputnik V)	Russia	• Developed by the Gamaleya Research Institute of Epidemiology and Microbiology in Russia • Initially released on 11 August 2020 • Review of the vaccine was delayed by the WHO due to insufficient data • Rollout stopped due to sanctions
15 Apr 2021	Hayat Vax	UAE	• Created by Sinopharm • Not approved by the WHO
19 May 2021	CoronaVac	China	• Obtained certificate of confirmation of the production site • WHO-validated
12 Jul 2021	Sputnik Light	Russia	• Vector vaccine produced in the Russian Federation • Not approved by the WHO • Review delayed by the WHO due to insufficient data • Rollout stopped due to sanctions
21 Jul 2021	Vero Cell	China	• Created by Sinopharm • Included in the WHO list of COVID-19 Vaccines for Emergency Use
3 Sep 2021	Comiranity	Belgium	• Produced by Pfizer
19 Feb 2022	Sputnik M (Gam-COVID-Vac-M)	Russia	• Intended for use by people 12-17 years old • Differs from Sputnik V in terms of concentration of adenovirus particles reduced five times (adolescent immunity less stressed compared to adults) • Not approved by the WHO • Review delayed by the WHO due to insufficient data • Rollout stopped due to sanctions

Despite eight vaccines being registered for use in Kazakhstan, only five were available according to the national web portal — Sputnik V, QazVac, CoronaVac, Sinopharm, and Pfizer.[1] Pfizer, while available, was not initially purchased in sufficient quantities to allow widespread adoption and was available only initially for children, pregnant women, and breastfeeding mothers. It was made available to the public only at the end of 2021.

The number of people who completed the initial two-dose vaccination protocol was 10.63 million as of 17 January 2023 (data accessed 24 February 2023) (see Figure 2). The MOH initiated a multi-stage vaccination program beginning on 1 February 2021, with a target of vaccinating six million people by the end of 2021 (Press Service of the Prime Minister of the Republic of Kazakhstan, 2021). The government planned to carry out the vaccination in stages for various population groups, and it planned its procurement to match the needs of its targets.

Figure 2: Number of people reported to have completed the initial COVID-19 vaccination protocol

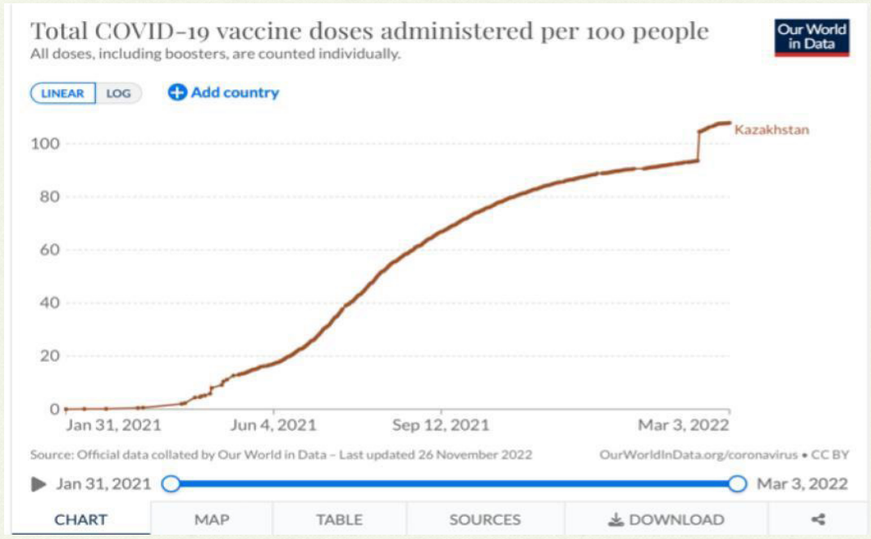


Note. Official data collated by Our World in Data

[1] https://www.coronavirus2020.kz

As of 7 December 2022, 55.9% of Kazakhstan's 19,375,969 people had received at least one vaccine dose, and as of 17 January 2023, 54.7% had completed the full initial COVID-19 two-dose protocol (Mathieu, 2020b; Our World in Data). There was initially slow uptake of vaccination, but there was a sharp increase from June 2021 (see Figure 3).

Figure 3: Vaccination statistics in Kazakhstan



Note. From Vaccines. (n.d.). Johns Hopkins Coronavirus Resource Center. https://coronavirus.jhu.edu/vaccines

Table 3: Vaccination stages in Kazakhstan

Stage I	Stage II	Stage III
100,000 people from 1 February 2021	150,000 people from March 2021	600,000 people from April 2021
Stage IV	Stage V	Stage VI
600,000 people from May 2021	600,000 people from June 2021	600,000 people from July to December 2021

Note. Adapted from the Press Service of the Prime Minister of the Republic of Kazakhstan. (19 January 2021). Kazakhstan planned to vaccinate up to six million people by the end of 2021, per the MOH.

In Stage I, medical workers of infectious disease hospitals, emergency medical carers, and hospital emergency room workers were eligible for vaccination. Stage II targeted secondary school teachers, university workers, medical services workers from government departments, boarding school teachers, kindergarten teachers, students, and people with chronic diseases. Stages III and IV of the vaccination rollout were aimed at employees of the Ministry of Internal Affairs, the Ministry of Emergency Situations, the Ministry of Defense, the National Security Committee, medical workers of other hospitals, non-teaching kindergarten staff, and people with chronic diseases.

Stage V targeted staff of medical and social institutions, employees of children's closed institutions, and people with chronic diseases. Remaining people were to be vaccinated at Stage VI.

There was widespread distrust in vaccines by the population (Ashimov, 2020; Altynbayev 2020), and the efficacy of COVID-19 vaccines generally was widely doubted, even amongst the medical practitioner community (Interviewee 1, personal communication, 27 November 2022; Interviewee 5, personal communication, 28 February 2023). Doctors and nurses were distrustful of vaccines from Russia, China, and Kazakhstan. Government information campaigns were a major factor in the ability of large parts of the population to participate in the vaccine rollout on paper, but not to physically receive the injections (Interviewee 5, personal communication, 28 February 2023). A cottage industry of false vaccination papers emerged, with the medical community working together with the general population against the government policy (Lillis, 2021). In Kazakhstan, though, there is a secondary layer of distrust, given a history of twentieth-century government policies targeting ethnic Kazakh people, combined with the current campaign in China's Xinjiang against ethnic Kazakhs (Pianciola, 2001; Mao, 2018l Wedelich, 2021).

Kazakhstan's government policy can be characterized by the emergent influence of vaccine diplomacy and the limitations of Kazakhstan's dependence on Russia and China. Where alternative vaccine options existed, Kazakhstan's relationships with Russia and China continued to affect its decisions regarding vaccines, such as the HayatVax vaccine, which is produced in the UAE but based on Chinese intellectual property and production processes. Kazakhstan received China's VeroCell (Sinopharm),[2] which is the same product as Hayat-Vax (produced under license in the UAE), demonstrating the level of saturation of China's vaccines in Kazakhstan.[3]

1.2. Vaccine diplomacy more 'two-neighbor dilemma' than 'multi-vector foreign policy'

Despite having been independent since 1991, Kazakhstan still maintains very tight economic, cultural, and political relations with Russia. Balanced against this dependency, China's economic influence in Kazakhstan has grown over recent decades. According to the National Bank of Kazakhstan, China had USD1.8 billion in foreign direct investment in Kazakhstan, the fifth highest inward FDI to Kazakhstan by country, just one place behind Russia's USD1.9 billion (Forbes.kz, 2022). China's investment in Kazakhstan focused on traditional and renewable energy, giving Kazakhstan new markets for oil and gas and developing its domestic capacity for solar and wind farms.

[2] The SARS-CoV-2 Vaccine (VeroCell) is an inactivated vaccine against COVID-19 which stimulates the body's immune system without risk of causing disease (Sinopharm [Vero Cell]- Inactivated, COVID-19 Vaccine, n.d.).

[3] Hayat-Vax is a joint collaboration between Sinopharm CNBG and Abu Dhabi's G42 (Sherif, 2021).

Kazakhstan's vaccine dependence is rooted in a series of quid pro quos, as it is unable to freely make foreign policy, including foreign health policy, due to a series of interlocking engagements with China and Russia in other spheres of economic and political life. In the opinion of the Interviewee 3, refusing Chinese vaccines in order to buy BioNTech or AstraZeneca might result in Kazakhstan losing Chinese investment for an energy project (Personal communication, 13 December 2022). Despite Kazakhstan's articulation of a multi-vector foreign policy, its ability to independently set foreign policy remains weak.

Given the high degree of public distrust in government relations with either Russia or China, coupled with the national government's stated foreign policy direction of pursuing a 'multi-vector foreign policy', it remains difficult to understand why the two-neighbor dilemma persists. Despite higher degrees of trade with the European Union, the pandemic policy caused an immediate reversion to bilateral authoritarian regime cooperation in order to solve public health challenges. In terms of public health policy and vaccines, there is no reason why Kazakhstan could not have imported vaccines from the European Union or the US. Thus, it is difficult to understand why the Kazakhstan bureaucracy has chosen to persist with this two-neighbor approach when it clearly is not beneficial in this situation.

Health diplomacy, then, may take up the position previously occupied by Belt and Road projects in China's relationships with Kazakhstan and Central Asian states. There could be a resurgence of public health diplomacy in which China brings more advanced technology and more cheaply produced goods as a genuine form of maintaining trade relationships. There is a similar level of state action in Russia's vaccine diplomacy. However, another outcome of global vaccine diplomacy is that Russian and Chinese vaccines are largely not accepted by Western countries for travel, making them de facto second-class vaccines globally.

1.3. Research methodology

Research was based on collecting both primary and secondary data. Five in-depth interviews were conducted with a representative of a medical association in Kazakhstan and local academics and international relations representatives who focus on China geopolitics and macroeconomics. Interviewees wished to stay anonymous. There were challenges in getting interviews from people who are aware of vaccination procurement information, as this information is privileged.

Table 4: Interviewee information

Interviewee	Sector	Date	Method
Interviewee 1	Representative of medical association in Kazakhstan	27 Nov 2022	Online
Interviewee 2	Researcher on China's soft power	24 Nov 2022	In person (in Almaty)
Interviewee 3	Researcher on China, Central Asia geopolitics, and macroeconomics	13 Dec 2022	Online
Interviewee 4	World Bank consultant in Central Asia	11 Jan 2023	Online
Interviewee 5	Political scientist, Suleyman Demirel University, Almaty, Kazakhstan	28 Feb 2023	Online

Secondary data collection was based on national COVID-19 statistics, the Kazakhstan MOH web-portal, the state procurement website, official news sources, and national and international reports on COVID-19.

PART II: INFORMATION ACCESSIBILITY

"Vaccine rollout was low in Kazakhstan. It was not the result of vaccine deficiency. No data and no research can show the real situation on the ground. No one knows the real share of vaccinated and unvaccinated people. The people here fell victim to Russian propaganda about vaccines, and those who did not believe in this propaganda did not trust Russian and Chinese vaccines. On the other hand, most felt deep distrust of anything the official organs tried to do because of people's fatigue from the Nazarbayev regime."
-Interviewee 5 (Personal communication, 28 February 2023)

2.1. The national approach

A slow-moving, reform-hesitant state stuck with so many institutional legacies from the Soviet Union, Kazakhstan's approach to information collection and dissemination through the pandemic was characterized by the national system approach (Kazakhstan and Uzbekistan experiment with vaccines amid lack of public confidence, 2021). Policy, action, and information was centrally controlled. While Kazakhstan's public administration is composed of oblasts (a type of administrative division) with highly differentiated polities, there is no federal system and very little devolution of powers or responsibility to local governments.

All centrally collected information was organized on the national web portal, available in Kazakh and Russian languages, with information sections with updates on: daily cases and deaths; PCR test results; news; important information; and FAQs. It also has statistical information about vaccination rates for first and second doses of the vaccines. However, it contains no information about vaccine availability, such as procurement volumes, prices, sources of supply, or other related information.

Most oblasts were beholden to the central system, and citizens had to wait for the central system to update their regional data. One standout case was the oil-rich oblast of West-Kazakhstan, which had the resources to create a local web portal to post information about the West-Kazakstan vaccination rollout. It created a special web resource, Stopcovid.kz, which is the official online resource for informing the region's public about COVID-19. It contains information about PCR test sites, places with the official QR code permission system "Ashyq", and legal documents related to the pandemic. The website's vaccination information includes resources on the people in medical organizations who are responsible for vaccination and their contact information, and the availability of vaccines in health facilities. Data on medical organizations is also filtered by vaccine type.

A key feature to emerge from Kazakhstan-based interviewees was the difference between, on the one hand, the government-controlled narrative and statistics on infections and vaccines, and on the other, what interviewees witnessed on the ground (Kazakhstan MOH, 2021; Lillis, 2021). This was particularly salient with regards to the vaccine rollout and the widespread use of fake certificates to circumvent it (Lillis, 2021; Kazakhstan: Boom in Fake Covid-19 Certificates, 2021; Kazakhstan is awash in fake vaccination passports, 2021).

Data sources on the vaccination rate are essentially unreliable due to the haphazard nature of the vaccine rollout and the system for disseminating information (Interviewee 5, personal communication, 28 February 2023). Taking data from the "Our World in Data" portal as a baseline, Kazakhstan ranked 91st out of 194 countries for percentage of population receiving at least one dose as of January 2023 (Understanding Vaccination Progress by Country, 2023). While estimates in early 2023 of the official rate of double-dosed vaccine treatments were around 54.7%, Interviewee 5 asserted that only a small percentage of the Kazakhstan population actually received the physical injections, and estimated the vaccinated population at somewhere around 25% (Kumanov, 2021; Interviewee 5, personal communication, 28 February 2023).

One of the main reasons for the slow vaccination rollout was that the government largely failed in its information campaign (Vaccination of citizens, 2021). This was reiterated by Interviewees 1 and 5. The vaccination campaign was planned to begin in February 2021, but by early April the number of vaccinated citizens still did not exceed 1% of the population. According to research conducted in February 2021 by 4Service Group — a customer experience management consulting firm — on the attitude of Kazakhstan citizens regarding vaccination, almost half (48%) of respondents did not plan to be vaccinated (Kazakhstan citizen's attitude towards vaccination, 2021).

2.2. Space for alternative media and third-party platforms

There was chaos in government bodies about which would take responsibility for the vaccination information campaign. There were mismatched and reactive communication methods rather than any unified strategic approach by either the MOH or local government administrations, which led to ineffective communication with citizens (Gumirkina, 2021). This was also confirmed by Interviewee 1 (Personal communication, 27 November 2022). Additionally, there was a pattern of inconsistent action by government officials (Kumenov, 2021). For example, President Tokayev announced his intention to receive the Kazakh vaccine (Urankayeva, 2021), but later Press Secretary of the Head of State Berik Uali announced that Tokayev was actually vaccinated with Russia's Sputnik V vaccine (Tokayev is vaccinated, 2021).

Already high levels of skepticism towards the government vaccination program among the population increased due to the lack of an information campaign (Asautai, 2021). Along with long-standing general distrust of post-Soviet governments' ability to deliver vaccine programs (Costa-Font, Garcia-Hombrados & Nicińska, 2023), this helped to ensure that the government information campaign was likely to be ignored and maligned before it even started.

Given the absence of information campaigns, one major source of information which emerged as a trusted source was the Instagram page of MedSupportKz, led by professional doctors as their personal initiative (Reznik, 2022).[4] The social media page provided a range of reliable information about COVID-19 vaccines, types of vaccines available, how each vaccine worked, replies to the question regarding mass vaccination measures by the central government, booster vaccination necessities, and the possible consequences of vaccination. Additionally, MedSupportKz streamed live videos and published video interviews with doctors and scientists about the vaccination rollout and procedures.

Another web resource, Central Asian fact checking web portal Factcheck.kz,[5] provided investigative analysis and arguments against fake information and destructive anti-vaccine propaganda. Independent media resources like Masa Media worked with Factcheck.kz to conduct research on lobbying campaigns that were working to limit dissemination of information (Yesimkhanov et al., 2021). The information vacuum naturally led to a range of alternative popular discourses taking hold and fostered cultures of vaccine hesitancy, skepticism, and refusal. It also created space for conspiracy theories and outlets for anti-Russia and anti-China sentiment. This in turn created space for the government to reassert control and use the pretext of anti-misinformation policies to squash legitimate political criticism of the government by labeling political activities as COVID-19 misinformation (Kumenov, 2021).

2.3. Misinformation, disinformation, and propaganda

A major trend was the high degree of distrust of the government combined with concerted state information campaigns by Russia and China. This resulted in a swamp of misinformation where individuals were forced to navigate official media and social media while assuming many state sources of information to be untrustworthy. State disinformation campaigns on COVID-19 in Kazakhstan came from both Russia and China (Kenderdine, 2020), and misinformation spread among social media users (Mustafina, 2021).

Instagram is the social media of choice in Kazakhstan (Yeskenov, 2022). Young Kazakh people are highly connected and independently participate in social media

[4] MedSupportKz is a community of scientists and medical professionals promoting scientific and empirical thinking in relation to medicine, healthcare and personal health. MedSupportKz was created in May 2020 and its Instagram page was a highly popular source of COVID-19 information on social media (Zhusupova, 2021).

[5] The Factcheck.kz community is composed of professional journalists with experience in covering social issues, economics, culture, politics, etc., who decided to launch the first fact-checking resource in the country and Central Asian countries.

discourse (Mashan, 2021). Their parents consume a different generation of media, however. Attitudes towards vaccine acceptance discourses depend on multiple factors in Kazakhstan, including education level, access to foreign media, and economic resource level (Interviewee 5, personal communication, 28 February 2023). However, perhaps the greatest bifurcation in Kazakhstan's vaccine skepticism discourses was between consumers of Kazakh language discourses and consumers of Russian language discourses.

2.3.1. Kazakh media narratives — fluctuation between fear and superiority

Analysis of Kazakh vaccine discourses that spread widely in Kazakh language demonstrate a clear link between the perception of the vaccine as an outside intervention in Kazakh life and previous historical generational traumas of the Kazakh people, such as the Asharshylyq forced starvation event of the 1930s, the Virgin Lands displacement policy of the 1950s, or the exodus of Ili from China after the Yi-Ta Incident in 1962. Kazakh people have survived a series of ethnic traumas, and in the twenty-first century Kazakhstan is only beginning attempts to rectify these depopulation events (Pianciola, 2001; Mao, 2018; Wedelich, 2021). This means any national catastrophe or global calamity is subject to 'Kazakh-saving' discourses (narratives of preserving Kazakhness and Kazakh people) or 'Kazakh-prism' discourse (which aligned the global pandemic narrowly through an ethnic Kazakh experience prism) (Interviewee 5, personal communication, 28 February 2023).

In response to the pandemic, a range of discourse and policy outcomes were disseminated from national Kazakh leaders and in Kazakh language media. However, these narratives fluctuated radically between fear of bio-attacks and cultural superiority. The initial fear of a bioweapon from China and distrust of any government response gave way to the 'Summer of Kumys', in mid 2020, with a boom in endorsements for traditional folk remedies to protect against or cure COVID-19. Cultural products touted as cures or prophylactics for COVID-19 included Kumys fermented horse milk, Qazı horse sausage, horse meat, lamb fat, and even the pink salt of Lake Kobeituz (Kumys being Used to Treat Coronavirus, 4 August 2020; Qazaqstan TV, https://qazaqstan.tv/news/129788/; Kumenov, 2020). Anecdotally, the initial propagators of the folk remedy advice were ethnic Kazakhs living in China, mainly in Xinjiang; having previously lived through SARS and MERS outbreaks before, they passed informal information into Kazakhstan that folk remedies and traditional food protected against coronaviruses (Interviewee 5, personal communication, 28 February 2023).

Kazakh leaders such as Balgyben Imash welded conspiracy theory-type narratives into their political positions. They often refused the vaccine. After the Summer of Kumys, though, Kazakh traditional leaders generally backed down from their strong anti-vaccine position and began publicly accepting vaccination ('At first I thought it was politics': Balgynbek Imashev admitted that he was mistaken that there was no coronavirus, 18 May 2020, Jetisu. https://7-su.kz/news/cat-6/7572/; Interviewee 5, personal communication, 28 March 2023). The reversal came amidst a skyrocketing death rate, but it was largely performative and only moved the national Kazakh position back towards the center, dismissing the more wild claims of a virus hoax, a genetic attack on Kazakhs, and vaccine skepticism in favor of a centrist government line ('Enslave the World': Balgyben Imash Votes against Mandatory Vaccination, Skif News, 5 July 2020).

PART III: ENSURING EQUITY

3.1. Decision-making equity

While most Kazakhstan citizens distrusted the government's ability to deliver vaccine equity, self-organized vaccine tours opened international markets to individuals, and medical practitioners widely supported the personal choices of vaccine skeptics (Kumenov, 2021). The high degrees of vaccine hesitancy in Kazakhstan meant that by the end of the vaccine rollout there were enough vaccines, but not enough people demanding them.

Perhaps the greatest loss to the government's vaccine rollout campaign, and the greatest ally in citizen choice for vaccine hesitancy, was the loss of some medical professionals who did not accept or approve of the vaccines procured by Kazakhstan (Kumenov, 2021; Aidos, Bolatov, Telman, Seisembekov, Altynay, Askarova & Pavalkis, 2021). Many within the medical establishment actively worked against the government rollout campaign (Interviewee 1, personal communication, 27 November 2020; Interviewee 5, personal communication, 28 February 2023). To a large degree, the fake certification regime was only able to succeed because of the support of the medical professional community (Interviewee 1, personal communication, 27 November 2022; Interviewee 5, personal communication, 28 February 2023). There were multiple cases of independent scientists and doctors in Kazakhstan opposing the domestic vaccine QazVac (Dozhanov, 2021). They said that the developers had not provided the results of clinical trials for this drug and had used questionable components in its creation. Vaccination of Kazakhstanis with the local drug QazVac began at the end of April 2021, even before the completion of the third (final) phase of clinical trials (Dozhanov, 2021). The developers then claimed that QazVac was absolutely safe, and estimated its effectiveness at 96%, stating that it was in no way inferior to Russia's Sputnik V (Dozhanov, 2021). The natural alliance of vaccine skeptical patients and vaccine skeptical doctors created a symbiotic social relationship then ensured vaccine equity for the vaccine hesitant, who could quite easily circumvent the national vaccination program by purchasing a vaccine certificate from a qualified medical professional.

The government's attempts to ensure widespread access to vaccines took a variety of public forms of display. Kazakh authorities encouraged citizens to get vaccinated against COVID-19 by drawing valuable prizes, like vacation packages to resorts, iPhones, apartments, cars, and other gifts (Mustafina, 2021). Big shopping malls had areas for vaccination, so that citizens could have easy access to vaccination (Mustafina, 2021). Lists of vaccination points at medical organizations, and contacts for them, were posted on official websites. It was possible to sign up to the government e-portal with an SMS notification and it was possible to get vaccinated at shopping and entertainment centers (Dzhandosova et al, 2021). Through these measures the government took a populist and effective approach to ensuring equity

in the vaccine rollout, and it rolled back a planned mandatory vaccination program, allowing more individual choice (Kumenov, 2020).

3.2. Differences in Kazakhstan regional equity

While there were differences in preference among Kazakhstan citizens living in rural and urban regions (see Table 5), there was a fairly flat information and vaccine access dynamic, suggesting a high degree of regional equity. According to a survey on vaccine manufacturer preferences among urban and rural citizens (Dzhandosova et al, 2021), the Kazakh vaccine is more trusted by villagers (16.9%) than urban residents (6.1%); by contrast, the American-German vaccine is more trusted by people from urban areas. Of note, survey respondents mentioned the Chinese-made vaccine little, if at all (any such mention would fit within "Other country" in Table 5).

Table 5: Preferences by vaccine manufacturer by urban/rural populations

	Urban (%)	Rural (%)
Kazakhstan	6.1	16.9
Russia (Sputnik)	22.4	30.4
American-German (Pfizer/BioNTech)	10.0	5.5
Other country (specify)	0.3	2.1
I don't know/difficult to answer	61.2	45.1
Total	100.0	100.0

Note. From Dzhandosova Zh. S., Sharipbaeva A.E., Baitugelova N.Yu., Smagulova Sh.K., Kudasheva T.V., Dzhandosova F.S. (2021). COVID-19 in Kazakhstan: scale of the problem, assessment of health and social protection services. PF "Sanj Research Center". https://www.soros.kz/wp-content/uploads/2021/08/Covid-19-в-Казахстане-масштабы-проблемы-оценка-услуг-здравоохранения-и-социальной-защиты.pdf

However, despite the marked difference in rural vaccine preference, the Kazakhstan government generally ensured availability of sufficient vaccines in all regions and for all groups of the population, though there were some reported cases of deficits in eastern regions of Kazakhstan (kt.kz, 2022). Vaccination opportunities were also available for labor migrants, and for foreigners with registration or residence permits (Kaliyev, 2021). Interviewee 5 reported that family members in rural localities around the isolated eastern city of Oskemen were able to easily receive the vaccine of their choice, including Pfizer.

3.3. International inequity leaves Kazakhstan behind

For most of the vaccination campaign, only three vaccines were widely available in Kazakhstan: Sputnik V (Russia), QazVac (Kazakhstan), and Sinopharm (China). Basically, only one vaccine approved by the WHO was available for Kazakhstan citizens, which is Sinopharm (China). Initially, the Pfizer vaccine was available only for children 12-18 years old, women 16-30 weeks pregnant, and nursing mothers. It became widely available to all population groups only in November 2021, when the first portion of a major procurement had been concluded. This lack of variety of available vaccines was due to a combination of market availability and Kazakhstan government policy efforts.

Due to unavailability of preferred vaccines, including those approved by the WHO, Kazakhstan citizens started to use "vaccine-tours". The most popular destinations were the UAE, Turkey, Croatia, and Bulgaria. The lack of a choice also pushed many citizens to get Moderna or AstraZeneca by traveling to neighboring Uzbekistan (Popova, 2021). There was more travel to European Union countries from people who had been educated abroad and those with relatives abroad, the young progressive generation of urban Kazakhstan citizens. Access to these vaccines was not available for people with lower income.

From a position of relative strength, as an oil exporting nation, with a license to produce the Russian vaccine domestically, and in close proximity both politically and geographically to both Russia and China, Kazakhstan still managed to deliver a sub-optimal national vaccine program with low levels of vaccine choice for individuals. Where Kazakhstan does fall into the category of intentional vaccine equity victim, the country occupies this position largely through its own internal policy decisions.

PART IV: ENSURING SELF-RELIANCE, TRANSPARENCY, AND ACCOUNTABILITY

While Kazakhstan was one of few countries to produce its own vaccine, the forces of vaccine diplomacy and economic and political dependency were strong. The 'two-neighbor' problem presented acutely in vaccine dependence on Russia and China (Kenderdine, 2022). Self-reliance in vaccine production entirely within Kazakhstan should have been a major success for the national government's vaccine rollout. Instead, lack of transparency around its production created distrust.

4.1. Self-reliance in QazVac production underwhelms

QazVac was manufactured by the state Scientific Research Institute for Biological Safety Problems. In August 2020, it was declared that, given the need to provide the population with a vaccine, it would be possible to use QazVac without waiting for completion of all stages of research, and the number of phases of clinical trials would be reduced from four to two (Gumirkina, 2021).[6]

Kazakhstan Minister of Health Alexey Tsoi reported later that, under the agreement between the Karaganda Pharmaceutical Complex (Kazakhstan) and the Russian Direct Investment Fund, the first batch of 20,000 doses of the Sputnik V vaccine would be delivered to start vaccinating the population. After the initial Sputnik doses, the government planned to start vaccinating the population from the beginning of 2021 with QazVac (Gumirkina, 2021). Later, there was a decrease in the first batch of QazVac vaccines produced, from the announced 75,000 doses to 50,000 doses. Ultimately, not enough QazVac was produced for a national vaccine program, and Kazakhstan reverted to reliance on Sputnik vaccines from Russia and Sinopharm vaccines from China. Even had production reached the required levels, there was widespread skepticism of the homegrown vaccine (Najibullah, 2021).

Interviewees 1 and 4 described the chaotic events around the public health system and complete absence of a systemic approach of the MOH, research institutes, SK-Pharmacy (the sole nationwide distributor of vaccines), and other actors during the vaccine distribution process. Interviewee 4 pointed out that the underestimation

[6] Phase IV clinical trials are a post-registration clinical trial of a medicinal product for medical use, conducted by the manufacturer of a medicinal product, the civil circulation of which is carried out after state registration, in order to collect additional data on its safety and efficacy, expand the indications for the use of this medicinal product, and also identify adverse reactions from patients. Phase II clinical trials — which take place if the drug is found to be safe and well tolerated — require the inclusion of more subjects (than Phase I), but with a disease (or condition), for the treatment (diagnosis and/or prevention) of which the active ingredient is intended (Makarevich, 2020).

of the danger of COVID-19 and the slow reaction of government agencies led to a situation in which thousands of citizens had to fight the coronavirus themselves. This was also the case with access to medical equipment such as ventilators and other medicines; 64% of people who needed ventilators reportedly found them difficult to access (Dzhandosova et al., 2021).

4.2. Inefficiencies, corruption, and non-transparency in vaccine procurement

There was widespread dissatisfaction with the government's handling of the vaccine rollout, but the baseline level of trust in Kazakhstan's governance system was already low from a history of Soviet institutions and a series of previously mishandled policy interventions, from the currency devaluation in 2015 to the Bloody January unrest in 2022 (Sorbello, 2022; Crisis Group, 2022; Kenderdine, 2022; Casey, 2016). With high levels of distrust among both the general population and the medical community towards the vaccines available (Lillis, 2021; Kumenov, 2021), there was an adversarial climate between government and people. The low demand for and low production of QazVac led to Kazakhstan President Tokayev criticizing his government over its lack of political ownership of the domestic vaccine procurement program. This meant that in the early stages of the national vaccination program only Russian and Chinese vaccines were considered for procurement, with too little QazVac available and a political decision made to avoid Western vaccines in order to ensure supply of Russian and Chinese vaccines.

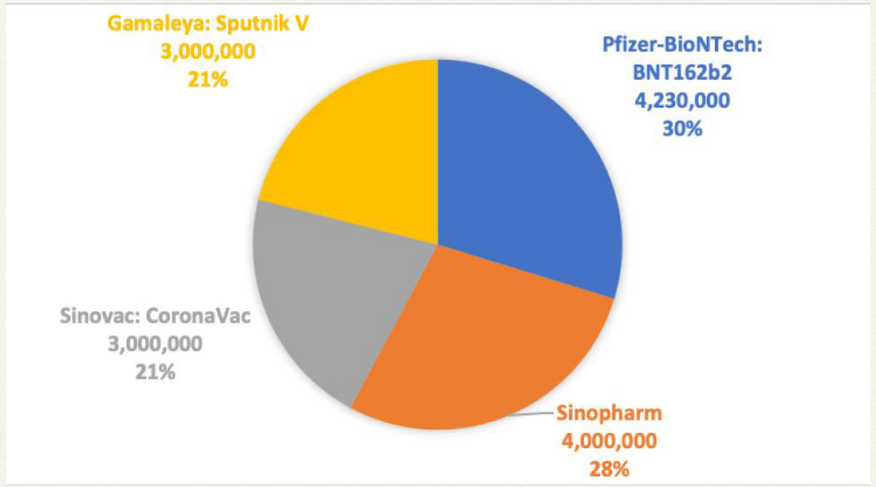
Procuring the China-manufactured vaccine was also plagued by failure or corruption, with one case of a 'loss' of three million vaccine doses. On 26 March 2021, Ambassador of China to Kazakhstan Zhang Xiao gave an interview (Zhulmukhametova, 2021), saying that China had provided three million doses of a vaccine to Kazakhstan. The interview was published initially on the website of the Chinese embassy, from which Kazakhstan mass media portals widely reported it; however, it is no longer available from the Chinese embassy website. Later, Kazakhstan Minister Tsoi claimed that the MOH had not received any vaccine from China. Tsoi later clarified that the MOH is negotiating with each manufacturer, including Sinovac, Pfizer, Johnson & Johnson, and Moderna, and that the MOH had sent commercial requests to each company for delivery of about 2-3 million doses of their respective vaccines. The QazVac Director General of the Research Institute for Biological Safety Problems then claimed in an online briefing that a purchase from China had been completed, of three million empty vials for vaccines (Kazakhstan Today, 2021). The matter was never publicly resolved.

Wider systemic corruption issues in the national healthcare system — due to an increase of quasi-government organizations, and a lack of independent monitoring and control mechanisms — also led to widespread inefficiencies in the vaccine rollout. Measures to equip hospitals and ambulance services with ventilators were taken, but a variety of factors — including underestimation of the danger of COVID-19 and sluggish government agency responses — led to a situation in which thousands of ill Kazakhstan citizens tried to access government hospital health services which did not exist on the scale needed. Several public medical organizations were suspected of corruption in cases of procurement of medicine and ventilators, by overstating unit price in order to skim off a profit, and leading to a sizable theft from the state budget allocated for fighting COVID-19 (Assylbek, 2020).

The Anti-Corruption Agency of Kazakhstan identified major corruption risks in relation to the official country-wide distributor (responsible for procurement of all pharmaceuticals nationally), SK-Pharmacy, which allegedly worsened the situation with regards to pharmaceutical access (Head of the Anti-Corruption service visited the SK-Pharmacy operating warehouse in the Kostanay region, 2020). In the case of the COVID-19 vaccine rollout, SK-Pharmacy was the primary point of contact for Kazakhstan's COVID-19 response, acting as purchaser for both necessary medical equipment and pharmaceuticals purchased as part of the national Kazakhstan health budget. SK-Pharmacy, as a single distributor, provides medicines both to medical organizations and directly to the population within the framework of the State Observatory for Medical Care, and it is tasked with ensuring the development of the pharmaceutical industry by consolidating the public procurement of medicines.

As with most bureaucratized government services in Kazakhstan, the vaccine procurement process can benefit interest groups, incentivizing keeping the process closed. Transparency and accountability on vaccine procurement was severely lacking (Lillis 2021). The Transparency Kazakhstan Foundation (2022) made an appeal to the central government after the mass protests in January 2022, which resulted from corruption and uneven accumulation of wealth (Sorbello 2022). Amidst this wider reckoning of the social contract in Kazakhstan (Thorez, 2022), Transparency Kazakhstan asked the government to take action to publish the details of contracts for vaccines supplied to the Republic of Kazakhstan. There are not clear procedures and publication of the contracts on vaccine procurement and spending. Currently there is no information on procurement of the vaccines. Official requests to SK-Pharmacy have been made within this research project, but no answers have been provided.

Figure 4: Total confirmed purchased doses in Kazakhstan



Note: According to Duke Global Health Innovation, Kazakhstan's received and potential imports of vaccine doses reached total 27.2 million, of which: 17.2 million doses were purchased, 7 million doses were received as donations, and 3 million remained pledged potential purchases (Vaccine Purchases | Launch and Scale Speedometer, n.d.).

The Government of Kazakhstan failed to adequately organize the procurement and delivery of vaccines. Its failure to take delivery of announced vaccine volumes has been the subject of a Vlast investigative journalism article by Gumirkina (2021). Kazakhstan began its vaccination rollout on 1 February 2021. Two months after the start of the vaccination campaign, only 0.7% of the population had received the first dose of the vaccine, and barely 0.2% were fully vaccinated. In March 2021, President Tokayev pointed out the low rates of vaccination, and the MOH continued to assert that the reason was the unavailability of vaccines in the world. The reality was a series of interlocking political decisions, policy failures, and poor communication strategies.

Given the failures in QazVac and the low uptake of the Russian and Chinese vaccines, there was still space in Kazakhstan's vaccine rollout program to introduce Western vaccines. However, in the international procurement of the Pfizer vaccine, two cases stand out as indicative of government policy to instead align with Russia and China politically. Regarding the ongoing process to procure doses of the Pfizer vaccine, in January 2021, Deputy Chairman of the Committee for Medical and Pharmaceutical Control Nurlybek Asylbekov said that the MOH was still unaware of the volumes needed for import to the country. In early February, the chief sanitary doctor of Kazakhstan announced that a preliminary agreement had been reached with a company to supply the vaccine, expected to be delivered in the second half of 2021. However, two days later, the spokeswoman for Pfizer's representative office in the Caucasus and Central Asia stated that the pharmaceutical company had not yet reached a strong agreement with Kazakhstan on the supply of a vaccine (Mazorenko, 2021). The second case was a government-to-government agreement of humanitarian aid; on 7 November 2022, a draft Agreement between the Government of the Republic of Kazakhstan and the US Department of Health and Human Services on the provision of humanitarian assistance was published on the "Open NPA" portal.[7] According to the draft document, the US Department of Health and Human Services expressed its intention to provide the Government of the Republic of Kazakhstan, represented by Minister of Health A. Giniyat, with humanitarian assistance in the form of approximately 500,000 doses of Pfizer-BioNTech (Turan Times, 2022). However, the Kazakhstan MOH later refused this humanitarian assistance. The stated reason was the short shelf life of the drug.

[7] The portal is intended for posting draft concepts of bills and draft normative legal acts that do not contain information with restricted access for public discussion by users

PART V: CONCLUSION

In a national emergency, a national government wants the freedom and ability to choose the best solution for the problem it faces. In security, this means being able to buy the best quality and highest strategic value military equipment; in economics, it means having access to best quality and highest strategic value international markets and trading partners. In the foreign policy of public health, this should mean being able, to the best of a country's abilities, to procure the best possible medical solutions for its people. Kazakhstan's governance institutions, however, clearly, demonstrably cannot do this, making the Kazakhstan vaccination campaign wholly ineffective.

If ever there was a time to use Kazakhstan's oil wealth for the benefit of its people as a whole, it was during the pandemic. Production of vaccine products from US and EU economies meant procurement of world-class medicine was a simple market transaction. However, the Western vaccines were ignored, procurement of the Russian and Chinese vaccines was mismanaged, and the public information campaign to bring the protection of the vaccine to the population created only greater distrust in government and governance in Kazakhstan.

There remains little data or information on procurement of vaccines in Kazakhstan. The government has not ensured transparent and open data on vaccine procurement, with no reports on budget spending. Its weak information campaign, the cases of ineffective government measures on COVID-19, and a burgeoning culture of mis- and disinformation around the subject of vaccinations created doubt in citizens' minds about the effectiveness of government vaccination measures.

The people of Kazakhstan were offered no realistic alternatives to the Russian and Chinese vaccines. As with most government services, people were left to make decisions about their own and their family's health alone. People faced international markets, state bureaucracies, vaccine diplomacy, and ultimately health decisions about their own bodies with little more than Instagram as their primary information weapon. Many more politically open and economically developed countries eventually moved to adopt WHO approved vaccines like Pfizer, AstraZeneca, and Moderna, which further restricted the international equity of Kazakhstan citizens to travel abroad. This only deepens the policy monopoly with which the national government of Kazakhstan enfeebles its citizens.

5.1. Policy recommendations for the Government of the Republic of Kazakhstan

- Free up government monies from oil revenues for a dedicated COVID-19 relief fund; such a fund could be used to remediate the detrimental effects of the poor vaccine rollout.
- Empower regional governments to better implement local health policy; while a move to full federalism is unrealistic, the 'health federalism' to empower lower government to make local decisions, independent of the central government, could help deliver better ongoing results for people and provide better protection against future pandemic and epidemic events.
- Publish open access reporting on the vaccine procurement process, with details on contracts, volume, and process of use of vaccines.
- Invest in better web communication and data dissemination strategies; empower more young people in government to help build communication platforms.
- Introduce legal mechanisms for transparency and accountability of quasi-government procurement processes at all stages: from planning and implementation of agreements to results monitoring.
- Establish an independent commission to investigate and publicly deliver findings on the QazVac production and procurement process.
- Provide feedback mechanisms for CSOs and individuals to suggest improvements to government policy and mechanisms.
- Introduce a legislative requirement for public reporting on the import and use of foreign medicines.
- Strengthen the role of state statistics in providing open, reliable, timely, and visible information for monitoring and decision-making.

5.2. Policy recommendations for CSOs

- Promote projects on media literacy and critical thinking nationwide to avoid the perpetuation and negative effects of manipulative propaganda and false information.
- Partner with local youth communications platforms and health professionals to build competency in effective third-party communication strategies in national emergencies.

- Increase CSO capacity in health related issues, for effective advocacy, engagement of society, and public awareness campaigns on health policy and decision making processes.

- Raise public awareness to improve the quality of public service delivery and to prevent corruption, as well as to decrease the tolerance of corruption within society.

- More consciously monitor differentiated health outcomes in rural and other marginal polities; where the government is not tracking at-risk social groups, CSOs can fill the gap.

- Work with the government to create bridges for third-party data and information management tools; utilize the strength in Kazakhstan's computer science and journalism worlds to create alternative spaces for consuming official data. Government sources of information are not trusted.

- Increase the role of CSOs and their public engagement on health policy issues.

- Continue to monitor, record, and work towards mitigating institutionalized corruption within government organs.

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