Norwegian University of Life Sciences (NMBU)

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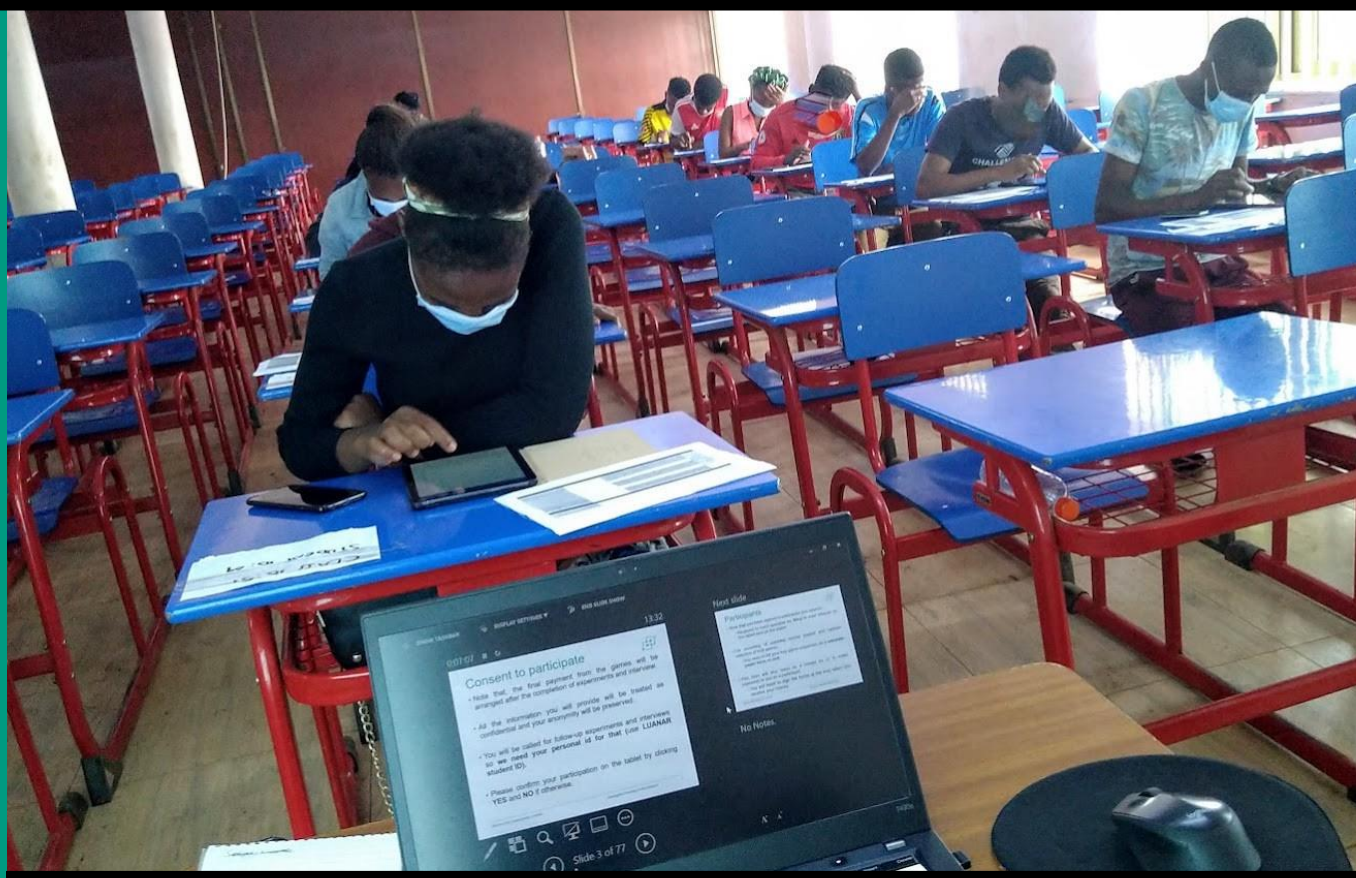

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The Corona pandemic among university students in Malawi[1]

By

Stein T. Holden[1], Samson Katengeza[2], Sarah Tione[2], Mesfin Tilahun[1], Ørjan Berg[1], Patrick Chimseu[2], and Blessings Njinga[2]

[1]School of Economics and Business, Norwegian University of Life Sciences, 1432 Ås, Norway.

[2]Department of Agricultural and Applied Economics, Lilongwe University of Agriculture and Natural Resources, Lilongwe, Malawi.

Abstract

This study provides the initial survey data from a sample of 764 students at the Lilongwe University of Agriculture and Natural Resources (LUANAR), Lilongwe, Malawi. It aims to provide evidence on the extent of exposure to the pandemic among university students, their knowledge and beliefs related to the corona virus and the ways to protect oneself against getting infected, the sources of information that the students rely on, and other factors influencing their knowledge, beliefs, and behavior. The study was undertaken in the period of February-March 2022 during which the fourth wave of the pandemic in the country took place and in this period the omicron variant of the virus dominated.

The result of the study shows that 17.5% of the students reported that they thought they had been infected by the corona virus. But only 23.9% of these had tested themselves for being infected and 27.2% of the students had taken a COVID-19 vaccine. Among those not vaccinated, 42.5% would like to get vaccinated, 21.9% are unsure and the remaining 35.6% would not like to get the vaccine. Astra Zeneca (47.6%) and Johnson & Johnson (53.3%) are the dominating vaccines used.

Most of (95.2%) the students stated that they tried to avoid getting infected by the corona virus during the most recent wave of the pandemic. The use of facemasks was considered most important way to avoid getting infected, followed by distancing, handwashing and avoiding crowded places. Few gave priority to avoiding handshakes and avoiding visiting old people and relatives or reduced the number of contact persons. This could be related to the social setup in Malawi, which revolves around handshakes and visiting family members compared to the global north where handshakes are less common.

Key words: Corona, COVID-19, pandemic, university students, knowledge, beliefs, behavior.

JEL codes: I12; I15; I18.

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1. Introduction

The corona pandemic has changed the world dramatically over a short period of time both with respect to having strong direct and indirect impacts on people and their livelihoods and on how people, governments, and institutions have responded to the various direct and indirect risks and shock effects of the pandemic. The pandemic has also triggered an enormous and systematic collection of data on infection rates, hospitalization, and deaths associated with COVID-19 sickness due to corona infection. And, never before, has so much research been implemented in such a short period of time to try to fill many of the burning knowledge gaps to understand the spread, severity, government and individual responses to the pandemic. One of the issues observed is that developing countries to a lesser extent are able to implement systematic mapping, prepare effective interventions, disseminate information, control behavior, and offer effective vaccines to its populations. This study aims to contribute in this context in one of the poorest countries in Africa, Malawi, where vaccination also had barely started at the time when we were planning this study.

This study is the first paper in a series of papers that will investigate various aspects of the corona pandemic in Malawi. This study provides the initial survey data from a sample of 764 university students at the Lilongwe University of Agriculture and Natural Resources (LUANAR), Lilongwe, Malawi. It aims to provide evidence on the extent of exposure to the pandemic among university students, their knowledge and beliefs related to the corona virus and the ways to protect oneself against getting infected, the sources of information that the students rely on, and other factors influencing their knowledge, beliefs, and behavior. The study was undertaken in the period February-March 2022 during which the fourth wave of the pandemic in the country took place and the omicron variant of the virus dominated.

Section 2 of the paper presents the most relevant background information about the pandemic in Malawi and its status up to the time of our study. Section 3 presents information about the sampling and data collected. Section 4 presents the empirical strategy. Section 5 presents the main findings in terms of simple descriptive statistics, followed by a discussion of the findings, before we conclude.

2. The experience of the pandemic in Malawi up to March 2022

As of March 27, 2022, there were 85,610 recorded corona infection cases and 2,626 deaths in Malawi (Malawi COVID - Coronavirus Statistics - Worldometer (worldometers.info). There have been four waves of the virus in the country with the first wave from July-September 2020, the second wave from January-April 2021, the third wave June-September 2021, and the last wave from December 2021-March 2022. With a total population of about 20 million, the number of official (known) deaths in the country due to COVID-19 is not very alarming compared to many other countries. However, there could be many unrecorded deaths and infections due to weaknesses in the system for registration and verification (testing). There were also many unrecorded deaths in rural areas as due to some beliefs the

villagers were resisting their sick to the hospitals for fear of being tested for COVID-19. The data above indicates that less than 5% of the population have been infected by the virus and about 3% of those infected have died if these numbers can be trusted.

3. Sampling and data collection

3.1.Sampling and sample

Our study used data from 764 randomly sampled students at LUANAR, Lilongwe, Malawi. The largest share of the sample is from the Bunda Campus (87%), and the remaining sample comes from the City Campus. Based on a university list of programs and classes, we aimed to have a broad coverage of study programs and levels in each study program. We tried to find first to fourth year BSc-students as well as MSc-students. We found difficulties in recruiting classes of MSc-students for the study as they were mostly out of the campus during our study.

Our approach was to randomly sample 16 students from each study program and year of study and in total we had 48 such groups. The exceptions were one BSc-class with only 12 participants and two MSc-groups which were composed from several MSc-classes. The study disciplines included Agribusiness Management, Agricultural Economics, Gender and Development, Agricultural Extension, Agricultural sciences, Veterinary and Animal sciences, Environmental and Natural Resource Management studies, Engineering and Biotechnology sciences, Food and Nutrition sciences, including more specialized studies within these areas.

We therefore think the sample should be fairly representative of the students in the university although we did not sample from all study programs. We do not think the sample is representative of the rest of Malawi, but it may still say something about the corona pandemic and the seriousness of COVID-19 in the country given that the large majority of these students (93.5%) are from rural areas and Malawi is mainly a rural country.

3.2.Survey instrument and interview approach

We designed a survey instrument that was programmed in the Survey Solutions software and used tablets for the data collection. Each session was organized in a classroom with 16 randomly sampled students from a study program and year of study.

The fact that we were in the middle of the fourth wave of the pandemic implied that we had to ensure corona-safe data collection by use of disinfectants for hands and all equipment before entering and when leaving the selected classroom. Both the researchers and students had to use facemasks throughout the sessions. The classroom was big enough to allow the seating of 16 students on numbered desks with sufficient distance in between. The students filled the answers to the questions on the tablets they were given for the session. One researcher was leading each session and guided the students through to ensure that all were on the same page, gave standardized introductions to the different parts and made sure the

students did not communicate with each other but focused on giving their personal responses without distractions.

The survey instrument started with the following introduction to the students:

(1). This is a NORAD (Norway)-funded project that is a collaboration between Norwegian University of Life Sciences and LUANAR (2). The project aims to build academic competence at LUANAR by giving courses, organizing joint data collection related to Climate Smart Agriculture and Policy Analysis in Malawi. (3). The Corona/COVID-19 pandemic is an important reality to take into account in the project both at LUANAR and in the study areas in Malawi. (4). This project component first aims to get insights about how students at LUANAR think and behave in relation to the pandemic, and second, to build on this insight in organizing fieldwork in rural areas in Malawi that makes a broader mapping of the perceptions, knowledge and behavior related to the pandemic, and third to train a team of enumerators that can carry out corona-safe fieldwork in rural parts of the country. (5). Participation in the survey (and experiments) is voluntary. All information will be treated as confidential and not disclosed to anyone unless in anonymized and aggregated form. (6). Try to give as honest answers as you can. We are not judging you, just try to map out general attitudes, knowledge, perceptions, and behavior. (7). Participants can earn some money as participants. The amount of money will partly depend on the decisions of participants in some experiments as well as their luck in some lotteries. (8). The total time this session will take is about 1 hour 30 minutes. (9). You may as a participant also be asked to participate in new rounds in the future that are of similar nature. You will also then have the freedom to refuse to participate.

The main parts of the survey instrument focused on their knowledge about the corona pandemic, their perceptions related to the pandemic, vaccination and infection status of students, personal behavior in response to the pandemic, and their perceptions about the behavior of other students related to the pandemic.

The survey instrument also included questions about personal and family characteristics, ethnicity, religion, and personal interests. In this report we only include information from the corona-related questions and do not relate these to the socio-economic characteristics or the type of study programs students attend. More careful analyses will be left for future papers.

The survey instrument was combined with a set of experiments that we do not elaborate on in this paper. The experiments will be dealt with in separate papers to come.

4. Research questions

4.1. Research questions

In this baseline report we primarily aim to address the following research questions by providing descriptive statistics of the responses of the students and that can help answer these questions:

1. How large share of the students have been infected by the corona virus and how serious effects did they experience from the infection?
2. To what extent have they tested whether they are infected by the virus?
3. How many of the students have relatives and friends that have been infected, been seriously ill, and/or have died from COVID-19?

4. How large share of the students have been vaccinated one or more times and with what type of vaccine as a protection against COVID-19?
5. How large share of the students would like to get vaccinated and how large share of the students have attempted but failed to get vaccinated?
6. How much trust do the students have in vaccination as a way of protecting themselves against COVID-19?
7. How much knowledge do the students have about the corona virus and the risks associated with infections and methods of protecting oneself from infections and sickness, including vaccines?
8. How frequently do the students update themselves about the status of the pandemic and what are the main sources they use to get such updated information?
9. How seriously do the students consider the risk of being infected and what are their main ways of protecting themselves against infection?
10. To what extent are students thinking about protecting others, and especially vulnerable persons, against getting infected by the virus?
11. How knowledgeable are they about who the most vulnerable people are and do they think that the most vulnerable should be given priority when it comes to vaccination against COVID-19?
12. How do the students perceive the behavior and attitudes of other students related to the pandemic?

5. Main findings

We will now present the main findings in form of descriptive statistics for the survey questions on the corona pandemic.

5.1. Corona infections and testing

Table 5.1 shows the percent of the students that have been infected, how many of the students have friends and relatives that have been infected and how many have friends and relatives that have been seriously sick from COVID-19.

Of the 134 students who responded that they had been corona infected, 14 had been hospitalized and 28 had unpleasant illness with breathing problems, 47 had unpleasant illness without breathing problems, and 57 had mild symptoms only. Of those that had tested for being corona infected, 66% had tested themselves only once, while the remaining had tested themselves twice or more.

Compared to the national statistics on infections, the per cent infected among the students is about 3.6 times as high as the national average. This may indicate that students are more likely to have been infected or the national statistics under-report infection rates because of limited testing capacity. The limited testing among students also shows that many of those that thought they had had corona have not tested themselves. Only 23.9% of those that thought they had had corona, had tested themselves. This could be due to limited testing capacity or the choice not to get tested. We have anecdotal evidence

that some feared to go and test themselves at isolation centers when the death rate was high. This may especially be the case when people had only mild symptoms. There could also be many students that had been infected without knowing as they may have had no or very weak and unclear symptoms.

The timing in the sickness and the symptoms were considered clear enough for them to be confident that they had been infected. We cannot rule out false positives and false negatives, but the number of false negatives may be larger as many may show weak symptoms, especially for the omicron variant.

1.1.Vaccination against COVID-19

Table 5.1 shows that 27.2% of the students have taken a COVID-19 vaccine, that 25.5% of those not vaccinated have tried to get the vaccine but failed. 42.5% of those not vaccinated would like to get vaccinated, 21.9% are unsure, and the remaining 35.6% would not like to get the vaccine.

Of those vaccinated, 47.6% have received Astra Zeneca, 53.3% have received Johnson & Johnson, and 1.0% have received Pfizer.

Table 5.1. Corona infections, severity of COVID-19 and vaccination

Variable	% of the 764 students
Have you been infected by the corona virus at some point as far as you know?	17.5
Do you have any friends who have been infected by corona?	68.7
If yes, have any of these been seriously sick?	32.3
Do you have any relatives who have been infected?	58.5
If yes to V24, have any of these been seriously sick?	39.0
Do you know anybody who have died from COVID-19?	87.8
Have you lived with a person that has been infected by the corona virus?	31.9
Have you at some points in time tested yourself for being infected?	14.8
Vaccination	
Have you already been vaccinated against COVID-19?	27.2
If you are not vaccinated, have you tried to get vaccinated? % Yes of 553 (72.4%)	25.5
Would you like to get vaccinated against COVID-19? % Yes of 553 (72.4%)	42.5

Table 5.2. shows the trust in the COVID-19 vaccines among students on a Likert scale from 1 to 5. We see that more than 70% of the students have good to very high trust in the vaccine.

Table 5.2. Trust in COVID-19 vaccines among LUANAR students

Trust level	Frequency	Percent	Cum.
Very low	104	13.6	13.6
Low	117	15.3	28.9
Good	278	36.4	65.3
High	134	17.5	82.9
Very high	131	17.2	100.0
Total	764	100.0	

1.2.Knowledge about the corona virus

We asked the students questions related to the corona virus to assess their knowledge about it. Their responses are summarized in Table 5.3. 97.4% correctly report the country where the virus was first discovered. However, not many students (only 11.4%) knew the exact number of people that had been infected in Malawi up to January 2022. Much as the government of Malawi posts the statistics almost every day, the majority of the students (close to 90%) do not follow the updates from the government.

Table 5.3. Knowledge about the corona virus among LUANAR students

Question	% correct answers from 764 students
In which country was the virus causing COVID-19 first discovered?	97.4
In which town was the virus causing COVID-19 first discovered?	42.1
How many waves of the virus have you had in Malawi since 2019? (We accept 3 and 4 waves as correct as the first wave was very small)	87.1
How many (Exact number) are known to have died from COVID-19 in Malawi up to January 2022? (We accept numbers between 1999 and 3001 as correct – the official number was 2626 on March 22nd).	26.8
How many are known to have been infected by the corona virus in Malawi up to January 2022? (We accept numbers between 72,000 and 90,000 (the official number was 85,000 on March 22nd).	11.4
Does vaccination against COVID-19 protect persons from getting seriously sick? Correct=Yes	72.0

We also asked how often the students updated themselves about the pandemic situation in the country during the last wave. The distribution of answers is presented in Table 5.4. We see that about 35% updated themselves daily, and another 28% updated themselves weekly. This means that more than one third of the students did little to keep updated on the pandemic situation.

Table 5.4. Frequency of updating about the pandemic situation in the country during the last wave

Frequency of updating	Frequency	Percent	Cum.
Daily	271	35.5	35.5
Weekly	214	28.0	63.5
Monthly	75	9.8	73.3
I do not make any efforts to be updated	152	19.9	93.2
I expect others to inform me or warn me if important	52	6.8	100.0
Total	764	100.0	

Furthermore, we asked the students to rank their three most important sources of information about the pandemic as of the last wave. The ranking information is presented in Table 5.5. We see that the internet is the most important source followed by radio and TV. Political leaders and religious leaders seem to play minimal roles as sources of information about the pandemic. This is in stark contrast to Western countries where political leaders have teamed up with the health authorities in providing information to the public. This is against the government of Malawi's encouragement of all leaders (including political and religious) to take active roles in providing information about the pandemic. It could also suggest that the students rarely patronize platforms where political leaders provide pandemic information such as radio, TV or political rallies/gatherings.

Most (78.4%) of the students stated that internet was an important source of information related to the pandemic. The most commonly used internet sources were BBC News, BBC Africa, WHO website, Covid-19 updates Malawi, Ministry of Health webpage, Nyasa Times, UNICEF, and general pages such as Google, Facebook, Whatsup, Wikipedia, Aljazeera, Zodiak online.

Table 5.5. If you update yourself regarding the pandemic, select the three most important sources of information

Information Source	Rank frequency (% of 764 students)			
	1	2	3	Not
Radio	26.9	11.8	10.1	51.2
TV	21.4	20.3	11.1	47.3
Newspapers	6.8	14.2	15.1	63.9
Internet	40.5	22.7	14	22.8
Religious leaders	1.1	4.6	6.3	88.0
Political leaders	0	0.2	2.6	97.2
Health personell	3.0	7.2	15.8	74.0

We also asked how much trust the students had in different sources of information by ranking the three most trusted sources of such information. The rank frequencies are presented in Table 5.6. The table shows that health personnel by far are the most trusted, followed by parents, religious leaders, and university leaders, while very few considered political leaders among the three most trusted sources related to the pandemic.

Table 5.6. Who do you respect/trust the most and follow the advice of in relation to the pandemic?

Trust in information sources	Rank frequency (% of 764 students)			
	1	2	3	Not
Religious leader	11.1	8.8	10.6	69.5
Political leaders	0.7	3.1	4.2	92.0
Health personell	72.6	12.8	3.8	10.7
University leaders	1.4	13.2	15.5	69.9
Best friends	0	2.0	6.7	91.4
Parents	13	21.2	13.2	52.6
Others	1.2	1.1	3.1	94.6

1.3.COVID-19 risk perceptions and protection methods among students

We asked whether the students perceived COVID-19 to represent a serious risk to their personal health. 80.4% responded yes to this question, 11.4% responded no, and 8.3% responded that they did not know. We also asked the follow-up question whether they perceived it as important for their own health to vaccinate themselves against COVID-19. 75.4% responded yes, 17.9% no, and 6.7% responded that they did not know.

The students were asked to rank the three most important methods they used to protect themselves against being infected by the corona virus. Table 5.7 presents the aggregated rank scores for the different protection methods. We see that by far the use of facemasks is considered the most important method, followed by avoiding crowded places and keeping > 1 meter distance in public places, washing hands regularly, while 10% regarded praying to God as the most important protection method.

Table 5.7. Rank the three most important methods you consider protect against getting infected by the corona virus

	Rank frequency (% of 764 students)			
Protection method	1	2	3	Not
Used facemask	52.9	17.9	10.9	18.3
Kept > 1 meter distance in public places	7.6	21.1	14.8	56.5
Reduced number of contact persons	3.7	5.1	6.2	85.1
Washed hands many times per day	6.2	18.1	21.6	54.2
Avoided handshakes	0.9	5.2	5.8	88.1
Avoided crowded places	14.9	15.7	15.7	53.7
Used disinfectants regularly	1.8	10.5	15.1	72.6
Prayed to God to not get infected	10.0	0.7	3.4	86.0
Used traditional medicine	0.9	0.8	0.9	97.4

Most (95.2%) of the students stated that they tried to avoid getting infected by the corona virus during the most recent wave of the pandemic. This is the wave with the omicron variant which transmits more easily but is also causing less severe sickness overall. For this wave we also asked students to rank the

three most important ways they have used to protect themselves against getting infected to see whether there had been any adjustments in their responses. The conditional aggregated ranked responses for the 95.2% that tried to protect themselves are presented in Table 5.8. The table indicates that the response pattern is very similar to their earlier stated responses in Table 5.7 with the use of facemasks considered most important, followed by distancing, handwashing and avoiding crowded places. We also see that few gave priority to avoiding handshakes and avoiding visiting old people and relatives or reducing the number of contact persons. This could be related to the social setup in Malawi, which revolves around handshakes and visiting family members compared to the global north where handshakes are less common.

Table 5.8. Ranked protective responses for the 95% who tried to protect themselves

	Rank frequency (% of 764 students)			
Responses	**1**	**2**	**3**	**Not**
Used facemask	81.6	9.8	6.1	2.6
Kept > 1 meter distance	2.6	25.7	8.9	62.7
Reduced number of contact persons	1.5	8.9	9.5	80.1
Washed hands many times per day	1.8	24.1	28.6	45.5
Avoided handshakes	0	6.9	10.5	82.7
Avoided crowded places	5	18.4	23.1	53.5
Avoded visiting old people/family	0.1	0.1	1	98.8
Prayed to God to not get infected	6.5	1.8	5.9	85.8
Used traditional medicine	0.7	1.4	1.9	96

Table 5.9. Facemask use habit versus the type of facemask during the last wave of the pandemic

	Type of facemask				
Facemask change habit	**Purchased paper mask**	**Washable cloth mask**	**Homemade cotton mask**	**Other**	**Total**
Changed mask daily	32.5	11.1	2.3	3.0	49.0
Use 1-5 times	18.3	14.4	2.1	1.2	36.0
Use 6-10 times	2.1	2.2	0.1	0.1	4.5
Use 11-20 times	0.6	2.1	0.0	0.0	2.6
Use > 20 times	1.0	2.1	0.4	0.0	3.4
Other	0.7	1.4	0.8	0.1	3.0
Never	0.8	0.6	0.0	0.0	1.4
Total	55.8	33.8	5.8	4.5	100.0

The fact that facemasks are considered as the most important tool for protection against corona infections, caused us to collect additional information on the practice of facemask use in terms of the types of facemasks used, the change habits and washing habits for reusable facemasks. The following Table 5.9 presents the practices by type of mask during the last wave of the pandemic that was ongoing during our survey for the 95% that stated that they tried to protect themselves against getting infected. All numbers are in % of the total 95%.

We see that 56% of the students use disposable paper masks and close to 40% use cotton/cloth masks. We also see that 49% change masks daily and 36% use masks 1-5 times before disposing or washing them. This indicates quite good habits among the majority of students. For those who responded "Other" for the type of mask, most of them stated that they used surgical masks.

We also asked the students about what they perceived to be the main benefits from using face masks. These were unranked responses and are presented in Table 5.10. While most students use facemasks to protect themselves, two-thirds of them also think they are important for them not to infect others.

Table 5.10. Perceived main benefits from using facemasks (multiselect)

Potential effects	**% responses of 764 students**
Protect yourself from being infected by others	81.5
Protect others from being infected by you	67.0
You are safe when you go in crowded places	35.0
You do not need to think about social distancing	4.2
Protects against other airborne diseases	0.2

Next, we asked about the frequency of facemask use in different locations in response to the pandemic. The frequency was categorized in three categories: "always", "sometimes", and "never", for each type of location. The aggregate responses are presented in Table 5.11 as % of the full sample of students for each type of location and frequency category. We see far from 100% "always" responses in all locations but facemask use is most frequent in buses, in stores/shops, and in the market. Only about half of the students use face masks always in the university while about 60% use facemask always when in church.

We also asked, "Have you made any adjustments in your behavior to reduce the risk that you will infect others in case you are infected without knowing it?" and 87.8% of the students responded yes to this question, indicating that they are aware they may spread the virus even though they do not have any symptoms.

Table 5.11. Personal behavior in response to the pandemic: Facemask use frequency by location type

	Frequency		
Location	**Always**	**Sometimes**	**Never**
In stores/shops	72.1	27.6	0.3
At friends' home	29.6	53.8	16.6
In the street	55.5	39.9	4.6
In the bus	75	23.6	1.4
In the market	66	31.4	2.6
At home	9.2	40.6	50.3
In the university	44.8	55	0.3
In the classroom	54.8	44.4	0.8
In church	59.8	34.6	5.6

We further asked, “What are your three most important behavioral activities you did during the height of the most recent wave of the pandemic to protect others?” to assess whether the behavior changed further during the height of the most recent wave of the pandemic. The responses are given in Table 5.12. We do not see much changes from the general responses stated before. However, we note that very few avoided going to church or visiting old people, grandparents or parents even during the peak of the wave.

Table 5.12. Behavioral responses during the peak of the last wave of the pandemic

	Rank frequency (% of 764 students)			
	1	**2**	**3**	**Not**
Used facemask	79.6	7.9	5.5	7.1
Kept > 1 meter distance	3.5	26.3	10.1	60.1
Reduced number of contact persons	3.4	10.9	8.9	76.8
Washed hands many times per day	2.1	19.5	22.4	56.0
Avoided handshakes	2.6	8.8	12.4	76.2
Avoided crowded places	6.0	14.3	17.5	62.2
Used disinfectants regularly	2.2	6.5	14.0	77.2
Avoided visiting grandparents/parents	0.4	0.8	1.7	97.1
Avoided visiting other old or sick people	0	0.5	1.3	98.2
Avoided going to church	0.1	0.4	0.5	99.0

1.4.Awareness of vulnerable groups and priority of vaccines

We investigated the awareness of variation in vulnerability against COVID-19 across social groups. We asked the students to rank the three most vulnerable groups based on the categorization in Table 5.13 which gives their aggregate rankings. The table indicates that the majority of the students are aware that it is the oldest people and those with other diseases that are most vulnerable to COVID-19. Unlike in the global North where children less than 15 were also observed to be affected during the third wave, the few to no cases in children reported in Malawi could be the reason for almost 95% of the respondents not considering children to be vulnerable.

Table 5.13. Rank three most vulnerable groups if infected by the corona virus (considering they are not vaccinated)

Social group	**Rank frequency (% of 764 students)**			
	1	**2**	**3**	**Not**
People elder than 80 years old	50.1	15.7	8.6	25.5
People 60-80 years old	15.2	31.2	21.7	31.9
People 40-60 years old	2.1	3.5	10.5	83.9
People 20-40 years old	0.3	0.7	0.9	98.2
People 0-20 years old	0.4	1.8	2.6	95.2
People that are overweight	2.2	6.3	8.3	83.3
People with other diseases	24.9	30.4	20.4	24.4

We wanted to see whether the awareness about variation in vulnerability also implies that the students think the vaccines should be prioritized for certain groups and what groups should be given highest priority by ranking the three groups that should be given priority.

45.6% of the students agreed that vaccines should be reserved for only some groups that should be given priority. Table 5.14 gives the aggregated ranks that the students thought should be prioritized for vaccination. The distribution in the table is among those that agreed to prioritize the allocation of vaccines. The table demonstrates that most of the students gave first priority to people above 80 years old, followed by people with other diseases, and people 60-80 years old. These correspond to those groups that the students considered to be most vulnerable.

Table 5.14. Rank the three groups that should be given priority for vaccination

Social group	**Rank frequency (% of 764 students)**			
	1	**2**	**3**	**Not**
People elder than 80 years old	46.3	14.9	4.6	34.2
People 60-80 years old	16.1	19.3	18.4	46.3
People 40-60 years old	6	3.7	8.6	81.6
People 20-40 years old	0.9	1.2	1.7	96.3
People 0-20 years old	0.9	1.4	2.3	95.4
People that are overweight	0	4.6	5.8	89.7
People with other diseases	26.7	22.4	14.9	35.9

1.5. Perceptions about the behavior and beliefs of other students related to the pandemic

We cannot be sure that the questions we have asked about personal behavior have resulted in fully honest responses. It is possible that students may pretend to behave better and more responsible than they really are. This may be because they are ashamed of their actual behavior or because they prefer to appear more responsible than they really are. However, it is very difficult to identify such individual biases and to correct them. However, students may answer more honestly about the behavior of others or at least about their beliefs about the behavior of others. We therefore included a set of questions to reveal such perceptions and they may be used to make some comparisons with the responses about own behavior. However, it is also possible that the responses say more about beliefs and perception biases related to other students than the true attitudes of fellow students. We therefore have to be very careful when interpreting these responses. In the case when student do not have good ideas about the attitudes of other students, there is a chance that they respond more randomly, and this could lead to a more even spread of the responses.

Our first question was “Do you think that other students behave in a responsible way in relation to the pandemic?” and 52% responded yes and 48% no. Our second question was “How big share of the

students at LUANAR do you think are too careless and can therefore contribute to the spread of the virus?". Table 5.15 presents the responses. The table indicates that most students think that a large share of the students are careless although the spread across % categories is quite even. This may also be because it is rather subjective what may be considered "careless".

Table 5.15. How big share of the students at LUANAR do you think are too careless and can therefore contribute to the spread of the virus?

% of students	Frequency	Percent	Cum.
1-20%	174	22.8	22.8
21-40%	185	24.2	47.0
41-60%,	176	23.0	70.0
61-80%,	169	22.1	92.2
81-100%	60	7.9	100.0
Total	764	100.0	

The next question: "How big share of the students are against the recommended protective measures?" may be interpreted more accurately if the awareness is good about what the recommended protective measures are. Not all students were found to frequently update themselves on the pandemic and these may be less aware of what recommended practices are. The responses to the question are presented in

Table 5.16. Beliefs about the share of students that are against the recommended protective measures

% of students	Frequency	Percent	Cum.
1-20%	174	37.6	22.8
21-40%	185	24.2	47.0
41-60%,	176	23.0	70.0
61-80%,	169	22.1	92.2
81-100%	60	7.9	100.0
Total	764	100.0	

Table 5.16. We see that about 38% believe that less than 20% are against the recommended protective measures while the rest think this share is higher. Regarding the attitudes towards vaccination against COVID-19, we asked, "How big share of the students are against getting vaccinated against COVID-19?" and the response distribution is presented in Table 5.17. Again, we see a very even response across categories except the highest category. This may imply that the beliefs of the students are rather random, and they may have limited knowledge about the attitudes among other students.

Table 5.17. Beliefs about the share of the students being against getting vaccinated against COVID-19

% of students	Frequency	Percent	Cum.
1-20%	175	22.9	22.9
21-40%	180	23.6	46.5
41-60%,	198	25.9	72.4
61-80%,	167	21.9	94.2
81-100%	44	5.8	100.0
Total	764	100.0	

A related question we asked was the following: “How big share of the students believe that the vaccine is more dangerous than the corona virus itself?” The responses are found in Table 5.18. We see that 38% believe that less than 20% of the student think so.

Table 5.18. Beliefs about the belief distribution related to the vaccination risks versus the COVID-19 risks.

% of students	Frequency	Percent	Cum.
1-20%	290	38.0	38.0
21-40%	166	21.7	59.7
41-60%,	139	18.2	77.9
61-80%,	111	14.5	92.4
81-100%	58	7.6	100.0
Total	764	100.0	

We also wondered how religious beliefs were associated with the beliefs about the pandemic and asked “How big share of the students are believing that their religion/God protects them against the pandemic?” The distribution of responses is presented in Table 5.19.

In this case 50% of the students thought that less than 20% of the students believed that religious beliefs could help to protect them against the pandemic.

Table 5.19. Beliefs about religious beliefs and their influence on protection against the pandemic

% of students	Frequency	Percent	Cum.
1-20%	381	49.9	49.9
21-40%	108	14.1	64.0
41-60%,	126	16.5	80.5
61-80%,	101	13.2	93.7
81-100%	48	6.3	100.0
Total	764	100.0	

We also asked “How big share of the students believe that the corona virus is no serious threat to them and therefore ignore it?” as this may be an important reason for students not to be very careful. The

response distribution is presented in Table 5.20. About 45% of the students believe that fewer than 20% of the students have this belief.

Table 5.20. Beliefs about the share of students that think the corona virus is no serious threat to them

% of students	Frequency	Percent	Cum.
1-20%	343	44.9	44.9
21-40%	149	19.5	64.4
41-60%,	116	15.2	79.6
61-80%,	109	14.3	93.9
81-100%	47	6.2	100.0
Total	764	100.0	

We ended by asking "How big share of the students believe that traditional medicines are better at protecting against corona infection/COVID-19 than the vaccines?" and with the response distribution in Table 5.21. This was the belief question that most clearly concentrated responses in the 1-20% category. Beliefs in traditional medicines is therefore not strong. If, however, 34% think that more than 20% of the students have such beliefs, there may be a reason to be concerned. This response pattern may, however, be an indication of substantial randomness in responses rather than strong beliefs among some students about widespread beliefs in traditional medicines.

Table 5.21. Beliefs about traditional medicines as an alternative protection against COVID-19

% of students	Frequency	Percent	Cum.
1-20%	506	66.2	66.2
21-40%	108	14.1	80.4
41-60%,	74	9.7	90.1
61-80%,	51	6.7	96.7
81-100%	25	3.3	100.0
Total	764	100.0	

2. Discussion

It may be good to look at the findings from two perspectives given the authors' experiences with the pandemic. We can then make a comparison between Malawi and Norway in terms of various aspects of the pandemic. Norway has done well compared to many other European countries in terms of controlling the pandemic and minimizing the number of deaths and severe sickness. Vaccines represent the most prominent difference between the two countries and have implied that Norway opened and removed all restrictions in March 2022 when the omicron wave was at or near the peak and without this resulting in a large increase in the number needing intensive care in hospitals. Three doses of vaccines, primarily with Phizer and Moderna, has made people less vulnerable to severe COVID-19. Norway has a population of 5.5 million and the total number of deaths due to COVID-19 is about 2,340 as of March

25th, 2022. This number is not much smaller than the 2,620 for Malawi although the population in Malawi is more than three times that of Norway. One reason for this could be that the Malawian population is much younger than the Norwegian population. Most of those who died from COVID-19 in Norway were old. However, we also now see a new peak of deaths even after three doses of vaccines have been given but many of these deaths are among those that have not vaccinated themselves.

It is, however, striking from the survey data that so many students state that they have relatives, friends, university teachers, and know many known public persons that have died from COVID-19 in Malawi. This may be an indication that the real number of COVID-19 deaths in Malawi is substantially larger than the official number.

The use of facemasks is the dominant tool for protection against being infected and avoiding infection of others in Malawi. It is by most students rated as tool number one followed by handwashing, keeping more than one meter distance, and avoiding crowded places.

Another striking difference between the pandemic in Malawi and Norway is the role of political leaders. In Norway political leaders cooperated closely with the national health authorities and had frequent public updating meetings on TV where they informed about new restrictions, changes in restrictions and the logic behind those based on advice from the health experts. We see from the student responses that very few of the students trusted political leaders as a source of information related to the pandemic while health personnel, their parents, and religious leaders were more trusted.

The purpose of this report was to give a quick and simple overview of the main findings from our survey of 764 students in LUANAR. We will follow up with more in-depth analyses of the data where we combine demographic and other variables with the corona-related variables.

3. Conclusions

We have in this report presented the basic descriptive statistics from our corona study among a random sample of 764 students at LUANAR in Malawi. The study was carried out in February-March 2022, during the fourth wave of the pandemic in the country. We found that most students were reasonably well informed about the risks associated with getting infected and most students made efforts to protect themselves. Still, we found the infection rate to be high (17.5%) among students compared to the official numbers for the country. While only 24% of those who thought they had been infected had actually tested themselves, we think that the rate rather is on the low side than the high side as many young people that have been infected may get any symptoms or have weak symptoms that may not be interpreted as being caused by the corona virus. Low official infection rates and death rates in Malawi may be due to the limited capacity for testing and lack of registration or identification of the cause of death. Our study is therefore based mainly on the perceptions of students and to a limited extent on scientific evidence on infections.

We regard the information about vaccination as more reliable and 27% of the students had received COVID-19 vaccines in form of Astra Zeneca or Johnson & Johnson. This is also much higher than the average vaccination rate in the country but still very low compared to Western countries. As of March 19th, 2022, close to 2 million vaccine doses had been administered in Malawi which is close to one dose per 10% of the population. Officially, 4.5% have been fully vaccinated. Most of the students who have been vaccinated in our sample have received only one dose (https://www.ft.com/content/4cdca5be-b236-417d-92c5-a17ac83ed288). A large share of the students that are not vaccinated yet would like to get vaccinated and many of these have also tried to get the vaccine but failed to get it. Among the students it is clear that they supply rather than the demand that limits vaccination, contrary to some media statements (https://www.ft.com/content/4cdca5be-b236-417d-92c5-a17ac83ed288).

The primary tool for protection against corona infections among the students was the use of facemasks. About 80% of the students used facemasks regularly in public places where the risk of infection was high during the peaks of the pandemic. The other methods that were given priority was distancing (> one meter distance), handwashing and avoiding crowded places. We will follow up this study through more careful analysis of the data by combining demographic data and relating information sources, knowledge, perceptions and behavior of the students.

References

Financial Times webpage: https://www.ft.com/content/4cdca5be-b236-417d-92c5-a17ac83ed288

Malawi COVID - Coronavirus Statistics - Worldometer (worldometers.info).

Appendix: The corona survey instrument – An extract from the complete survey instrument.

Generated by patrick_kawaye, Apr 01, 2022 15:43
Questionnaire created by patrick_kawaye, Jan 07, 2022 15:33
Last modified by steiho, Mar 06, 2022 16:48

Shared with:
pangapanga last edited 2/15/2022 3:23:25 AM
Blessings_Nji last edited 2/11/2022 7:48:27 AM
sarahtione (never edited)
steiho last edited 3/6/2022 2:48:27 PM

Sections: 14, Sub-sections: 0, Questions: 184.
Questions with enabling conditions: 148
Questions with validation conditions:10
Rosters: 1
Variables: 0

Survey Solutions

SMARTEX_LUANAR_students_Questionnaire

SURVEY INSTRUMENT: CORONA/COVID-19 PANDEMIC

No sub-sections, No rosters, No questions, Static texts: 1.

KNOWLEDGE ABOUT THE CORONA PANDEMIC

No sub-sections, No rosters, Questions: 23.

PERCEPTION QUESTIONS RELATED TO THE PANDEMIC

No sub-sections, No rosters, Questions: 11.

VACCINATION AGAINST COVID-19 AND INFECTIONS/SICKNESS

No sub-sections, No rosters, Questions: 33.

PERSONAL BEHAVIOR IN RESPONSE TO THE PANDEMIC

No sub-sections, Rosters: 1, Questions: 21.

PERCEPTION ABOUT THE BEHAVIOR OF OTHERS RELATED TO THE PANDEMIC

No sub-sections, No rosters, Questions: 12.

SURVEY INSTRUMENT: CORONA/COVID-19 PANDEMIC

STATIC TEXT

(1). This is a NORAD (Norway)-funded project that is a collaboration between Norwegian University of Life Sciences and LUANAR (2). The project aims to build academic competence at LUANAR by giving courses, organizing joint data collection related to Climate Smart Agriculture and Policy Analysis in Malawi. (3). The Corona/COVID-19 pandemic is an important reality to take into account in the project both at LUANAR and in the study areas in Malawi. (4). This project component first aims to get insights about how students at LUANAR think and behave in relation to the pandemic, and second, to build on this insight in organizing fieldwork in rural areas in Malawi that makes a broader mapping of the perceptions, knowledge and behavior related to the pandemic, and third to train a team of enumerators that can carry out corona-safe fieldwork in rural parts of the country. (5). Participation in the survey (and experiments) is voluntary. All information will be treated as confidential and not disclosed to anyone unless in anonymized and aggregated form. (6). Try to give as honest answers as you can. We are not judging you, just try to map out general attitudes, knowledge, perceptions and behavior. (7). Participants can earn some money as participants. The amount of money will partly depend on the decisions of participants in some experiments as well as their luck in some lotteries. (8). The total time this session will take is about 1 hour 30 minutes. (9). You may as a participant also be asked to participate in new rounds in the future that are of similar nature. You will also then have the freedom to refuse to participate.

KNOWLEDGE ABOUT THE CORONA PANDEMIC

K1. In which town was the virus causing COVID-19 first discovered?	TEXT Corona_town
K1B. In which country was the virus causing COVID-19 first discovered?	TEXT Corona_country
K2.How many waves of the virus have you had in Malawi since 2019? E IsAnswered(Corona_country)	NUMERIC: INTEGER number_of_waves
K3.Do you know COVID19 variants by name? E IsAnswered(number_of_waves)	SINGLE-SELECT know_COVID19_variants 01 ○ Yes 00 ○ No
K3A. Mention the 1st COVID19 variant by name E know_COVID19_variants==1	TEXT COVID19_variant1
K3B. Mention the 2nd COVID19 variant by name E know_COVID19_variants==1	TEXT COVID19_variant2
K3B. Mention the 3rd COVID19 variant by name E know_COVID19_variants==1	TEXT COVID19_variant3
K4A.How many (Exact number) are known to have died from COVID-19 in Malawi up to January 2022?	NUMERIC: INTEGER CVD_DEATH_Exact
K4B.How many (Minimum) are known to have died from COVID-19 in Malawi up to January 2022? E IsAnswered(CVD_DEATH_Exact)	NUMERIC: INTEGER CVD_DEATH_Min
K4B.How many (Maxmum) are known to have died from COVID-19 in Malawi up to January 2022? E IsAnswered(CVD_DEATH_Min)	NUMERIC: INTEGER CVD_DEATH_Max
K5.How many are known to have been infected by the corona virus in Malawi up to January 2022? E IsAnswered(CVD_DEATH_Max)	NUMERIC: INTEGER CVDinfectjan22
K6. How many of the staff at LUANAR have died from COVID-19 up to January 2022? E IsAnswered(CVDinfectjan22)	NUMERIC: INTEGER COVstaffdeathjan22
K7.How many of the students at LUANAR do you know have been sick from COVID-19 since the beginning of the pandemic? E IsAnswered(COVstaffdeathjan22)	NUMERIC: INTEGER COVstud_sick
K8.How large % of the staff at LUANAR do you think have been vaccinated against COVID-19? E IsAnswered(COVstud_sick)	NUMERIC: INTEGER COVstaffvac

K9.How large % of the students at LUANAR do you think have been vaccinated against COVID-19?

E IsAnswered(COVstaffvac)

NUMERIC: INTEGER COVstudentvac

K10.What have been the main sources of information on LUANAR COVID-19 status and update?

E IsAnswered(COVstudentvac)

SINGLE-SELECT COVinfo

01 ○ University Administration public announcement
02 ○ University staff personal info
03 ○ Fellow students
04 ○ Newpaper
05 ○ Radio
06 ○ Internet: University webpage
07 ○ Rumors
08 ○ Others

If others Specify

E COVinfo==8

TEXT COVinfo_other

K11.Does vaccination against COVID-19 protect persons against being infected by the virus?

E IsAnswered(COVinfo)

SINGLE-SELECT vacprotinf

01 ○ Yes
00 ○ No
02 ○ Don't know

K12.Does vaccination against COVID-19 protect persons from getting seriously sick?

E IsAnswered(vacprotinf)

SINGLE-SELECT vac_prot_sick

01 ○ Yes
00 ○ No
02 ○ Don't know

K13.Do you know any vaccines that work against COVID-19?

E IsAnswered(vac_prot_sick)

SINGLE-SELECT vaccines_that_work

01 ○ Yes
00 ○ No

K13A.Which vaccines do you know about that work against COVID-19? (Give 1st name of vaccine)

E vaccines_that_work==1

TEXT Vaccine_1

K13B.Which vaccines do you know about that work against COVID-19? (Give 2nd name of vaccine)

E vaccines_that_work==1

TEXT Vaccine_2

K13C.Which vaccines do you know about that work against COVID-19? (Give 3rd name of vaccine)

E vaccines_that_work==1

TEXT Vaccine_3

PERCEPTION QUESTIONS RELATED TO THE PANDEMIC

P1.Do you perceive COVID-19 represents a serious risk to your personal health?

SINGLE-SELECT — COVriskpercep

- 01 ○ Yes
- 00 ○ No
- 02 ○ Don't know

P2. If yes to P1, why, explain

E COVriskpercep==1

TEXT — COVriskexplainperc

.....

P3. If no to P1, explain

E COVriskpercep==0

TEXT — COVnoriskexplainperc

.....

P4.Do you perceive it as important for your own health to vaccinate yourself against COVID-19?

E IsAnswered(COVriskpercep)

SINGLE-SELECT — vac_perceive_impnt

- 01 ○ Yes
- 00 ○ No
- 02 ○ Don't know

P5. Rank the three most important methods you consider protect against getting infected by the corona virus? (Select inorder of importance)

MULTI-SELECT: ORDERED — protection_methods

- 01 ☐ Used facemask
- 02 ☐ Kept >1 meter distance to people in public spaces
- 03 ☐ Reduced the number of contact persons
- 04 ☐ Washed my hands many times per day
- 05 ☐ Avoided handshakes
- 06 ☐ Avoided crowded places
- 07 ☐ Used disinfectants regularly
- 08 ☐ Prayed to God to not get infected
- 09 ☐ Traditional medicine
- 10 ☐ None
- 11 ☐ Others

P6.Specify if you consider other methods

E protection_methods.Contains(11)

TEXT — SpecifyMethods

.....

P7A.What do you think are the main positive effects of vaccination against COVID-19 are?

MULTI-SELECT: ORDERED — vacmain_eff

- 01 ☐ Reduced risk of getting infected
- 02 ☐ Reduced risk of getting seriously sick or die
- 03 ☐ Depends on the type of vaccine Uncertain
- 04 ☐ Depends on how the individual reacts to the vaccine (age and health condition)
- 05 ☐ Depends on the type of the vaccine
- 06 ☐ Depends on the type of corona virus
- 07 ☐ No effect
- 08 ☐ Others

If yes specify

E vacmain_eff.Contains(8)

TEXT — Specify_effct

.....

P7B.What do you think are the main negative effects of vaccination against COVID-19 are?

E IsAnswered(vacmain_eff)

MULTI-SELECT: ORDERED vacmain_effnegtv

- 01 ☐ Higher risk of getting infected
- 02 ☐ Higher risk of getting sick and or die
- 03 ☐ Depends on the type of vaccine Uncertain
- 04 ☐ Depends on how the individual reacts to the vaccine (age and health condition)
- 05 ☐ Depends on the type of the vaccine
- 06 ☐ Depends on the type of corona virus
- 07 ☐ No effect
- 08 ☐ Others

If yes specify

E vacmain_effnegtv.Contains(8)

TEXT Specifyeffcts

.....

P8. Rank three most vulnerable groups if infected by the corona virus? Considering if not vaccinated. (Rank based on vunerability)

E IsAnswered (vacmain_effnegtv)

MULTI-SELECT: ORDERED vulnerable_grps

- 01 ☐ People elder than 80 years
- 02 ☐ People 60-80 years old
- 03 ☐ People 40-60 years old
- 04 ☐ People 20-40 years old
- 05 ☐ People 0-20 years old
- 06 ☐ People that are overweight
- 07 ☐ People with other diseases
- 08 ☐ Anybody can get seriously sick
- 09 ☐ Dont know

VACCINATION AGAINST COVID-19 AND INFECTIONS/SICKNESS

V1.Have you already been vaccinated against COVID-19?

SINGLE-SELECT vac_cov19

01 ○ Yes
00 ○ No

V2. If yes to V1, what type of vaccine?

E vac_cov19==1

MULTI-SELECT COVvac_type

01 ☐ Astra Zeneca
02 ☐ Johnson&Johnson
03 ☐ Pfizer

V3.If yes to V1, how many doses have you received?

E vac_cov19==1

NUMERIC: INTEGER COVvac_doses

V4A. If yes to V1, when were you vaccinated first time?

E vac_cov19==1

DATE COVvac_date_first

V4B. If yes to V1, when were you vaccinated Second time?

E COVvac_doses>=2

DATE COVvac_date_second

V4C. If yes to V1, when were you vaccinated Third time?

E COVvac_doses>=3

DATE COVvac_date_third

V5. If yes to V1, where were you vaccinated?

E vac_cov19==1

SINGLE-SELECT COVvac_location_first

01 ○ At LUANAR
02 ○ At my home place
03 ○ Other

If others Specify

E COVvac_location_first==3

TEXT COVvacSpecifyplace

V6. If you are not vaccinated, have you tried to get vaccinated?

E vac_cov19==0

SINGLE-SELECT COV_vac_tried

01 ○ Yes
00 ○ No

V7.Would you like to get vaccinated against COVID-19?

E vac_cov19==0

SINGLE-SELECT liketoget_vac

01 ○ Yes
00 ○ No
02 ○ Don't know

V8. Does your answer to V7 depend on the type of vaccine you get access to?

E vac_cov19==0

SINGLE-SELECT vcn_vs_type

01 ○ Yes
00 ○ No

V8a. If Yes to question V7, explain:

E vcn_vs_type==1

TEXT COVvac_explain

V9.Do you recommend all adults to get vaccinated?

SINGLE-SELECT COVvacrecom

01 ○ Yes
02 ○ No

V10. Would you like to advise people to not take the vaccine?

E IsAnswered(COVvacrecom)

SINGLE-SELECT COVvacwarning

01 ○ Yes
00 ○ No

V11. If yes to V10, explain why:

E COVvacwarning==1

TEXT why_COVvac_warn

.....

V12A.How much trust do you have that vaccination is good for you?

E IsAnswered(COVvacwarning)

SINGLE-SELECT vactrust

05 ○ Very high
04 ○ High
03 ○ Good
02 ○ Low
01 ○ Very low

V12B.Should vaccines be reserved for only some groups that should be given first priority?

E IsAnswered(vactrust)

SINGLE-SELECT COVvac_priority

01 ○ Yes
00 ○ No

V13. If yes to V12B, who should be given priority?

E COVvac_priority==1

MULTI-SELECT: ORDERED COVvacprigroups

01 ☐ People elder than 80 years
02 ☐ People 60-80 years old
03 ☐ People 40-60 years old
04 ☐ People 20-40 years old
05 ☐ People 0-20 years old
06 ☐ People that are overweight
07 ☐ People with other diseases
08 ☐ Anybody can get seriously sick

V14.Have you been infected by the corona virus at some point as far as you know?

E IsAnswered(COVvac_priority)

SINGLE-SELECT CoronaInfected

01 ○ Yes
00 ○ No

V14a.If yes to V14, how did the infection affect your body?

E CoronaInfected==1

SINGLE-SELECT Vac_gainst_Covid

00 ○ I did not feel any effect
01 ○ I felt only mild symptoms
02 ○ I felt ill and uncomfortable
03 ○ I got seriously sick but did not go to hospital
04 ○ I got very sick and was hospitalized

V15.If yes to V14, when was this?

E CoronaInfected==1

DATE MonthInfected

.....

V16.Have you at some points in time tested yourself for being infected?

SINGLE-SELECT Coronatested

01 ○ Yes
00 ○ No

V17.If yes to V16, where was this?

E Coronatested==1

TEXT Coronatestplace

.....

V18.If yes to V16, how many times?

E Coronatested==1

SINGLE-SELECT Coronatesttimes

01 ○ Once
02 ○ Twice
03 ○ Thrice
04 ○ More than thrice

V20.If you have been infected, did you get sick and how sick?

E CoronaInfected==1

SINGLE-SELECT how_sick

01 ○ Mild symptoms only
02 ○ Unpleasant illness but no breathing problems
03 ○ Unpleasant illness with breathing problems
04 ○ Other

If others Specify

E how_sick==4

TEXT specifyhowsick

.....

V21.If you have been sick with COVID-19, did you go to/stay in hospital?

E CoronaInfected==1

SINGLE-SELECT stay_in_hospital

01 ○ yes
00 ○ no

V22.Do you have any friends who have been infected by corona?

SINGLE-SELECT COVsickfriend

01 ○ Yes
00 ○ No

V23.If yes to V22, have any of these been seriously sick?

E COVsickfriend==1

SINGLE-SELECT COVsickfriendsserious

01 ○ Yes
00 ○ No

V24. Do you have any relatives who have been infected?

SINGLE-SELECT COVsickrelatives

01 ○ Yes
00 ○ No

V25.If yes to V24, have any of these been seriously sick?

E COVsickrelatives==1

SINGLE-SELECT COVsickreativserious

01 ○ Yes
00 ○ No

V26. Do you know anybody who have died from COVID-19?

SINGLE-SELECT COVdied_know

01 ○ Yes
00 ○ No

V27. Have you lived with a person that have been infected by the corona virus?

E IsAnswered(COVdied_know)

SINGLE-SELECT coronainfcohabit

01 ○ Yes
00 ○ No

PERSONAL BEHAVIOR IN RESPONSE TO THE PANDEMIC

B1.Have you tried avoiding getting infected by the corona virus during the most recent wave of the pandemic?

SINGLE-SELECT — Corona_protection_rank

- 01 ○ Yes
- 02 ○ No

B2.Tick the three most important items or ways you have used

E Corona_protection_rank==1

MULTI-SELECT: ORDERED — Protection1

- 01 ☐ facemask
- 02 ☐ Kept >1 meter distance to people in public spaces
- 03 ☐ Reduced the number of contact persons
- 04 ☐ Washed my hands many times per day
- 05 ☐ Avoided handshakes
- 06 ☐ Avoided crowded places
- 07 ☐ Avoided visiting old people/family
- 08 ☐ Prayed to God to not get infected
- 09 ☐ Used traditional medicine
- 10 ☐ Other

If others Specify

E Protection1.Contains(10)

TEXT — spcimport

.....

B3. If you used facemask regularly during the peak of the last wave of the pandemic, how many times did you use such a mask before you disposed it?

E IsAnswered(Protection1)

SINGLE-SELECT — facemaskchange

- 01 ○ 1-5 times
- 02 ○ 6-10 times
- 03 ○ 11-20 times
- 04 ○ >20 times
- 05 ○ Changed mask daily
- 06 ○ Other
- 07 ○ Never

B4. What kind of facemask did you use?

E IsAnswered(facemaskchange)

SINGLE-SELECT — facemasktype

- 01 ○ Purchased paper mask
- 02 ○ Washable cloth mask
- 03 ○ Homemade mask from cotton
- 04 ○ Other
- 05 ○ None

If others Specify

E facemasktype==4

TEXT — facemasktypesp

.....

B5.What are the main benefits of using facemask?

MULTI-SELECT — facemaskbenefit

- 01 ☐ Protect yourself from being infected by others
- 02 ☐ Protecting others from being infected by you
- 03 ☐ You are safe when you go to crowded places
- 04 ☐ You do not need to think about social distancing
- 05 ☐ Others
- 06 ☐ None

If others Specify

E facemaskbenefit.Contains(5)

TEXT — facemaskbenefitspec

.....

B6. If you used a washable facemask that you used many times, how often did you wash it during the peak of the pandemic?

E IsAnswered(facemaskbenefit)

SINGLE-SELECT facemaskwash

01 ○ Daily
02 ○ Twice per week
03 ○ Once per week
04 ○ Rarely
05 ○ Never

PERSONAL BEHAVIOR IN RESPONSE TO THE PANDEMIC

Roster: B7. HOW COMMONLY DO YOU USE A FACEMASK - %ROSTERTITLE%

generated by fixed list facemaskuse

01 In stores/shops
02 At friends home
03 In the street
04 In the bus
05 In the market
06 At home
07 In the university
08 In the classroom
09 In church

Select frequency on use of face mask in the question shown above

SINGLE-SELECT Measures_of_avoiding_Covid

01 ○ Always
02 ○ Never
03 ○ Sometimes

B8. Have you made any adjustments in your behavior to reduce the risk that you will infect others in case you are infected without knowing it?

SINGLE-SELECT adjustments

01 ○ Yes
02 ○ No

B9A.what are your three most important behavioral activities you did during the height of the most recent wave of the pandemic to protect others

E IsAnswered(adjustments)

MULTI-SELECT: ORDERED rankprotectact1

01 ☐ Used facemask
02 ☐ Kept >1 meter distance to people in public spaces
03 ☐ Reduced the number of contact persons
04 ☐ Washed my hands many times per day
05 ☐ Avoided all handshakes
06 ☐ Avoided crowded places
07 ☐ Used disinfectants regularly
08 ☐ Avoided visiting parents and grandparents to not infect them
09 ☐ Avoided visiting other old or sick people
10 ☐ Avoided going to church

B9B.Do you think it is necessary for you to adjust your behavior due to the corona pandemic?

E IsAnswered(rankprotectact1)

SINGLE-SELECT B9

01 ○ Yes
00 ○ No

B10A.If No to B9B, what are the reasons? select your three most important reasons

E B9==0

MULTI-SELECT: ORDERED ranknoadjustreasons1

01 ☐ Very low or no risk of getting infected
02 ☐ Very low or no risk of getting sick if infected
03 ☐ No or very low risk of infecting others
04 ☐ I do not want to adjust my behavior as I should be free to do whatever I want
05 ☐ I do not think I am at risk myself and others should take care of themselves, that is not my responsibility

If others specify

E IsAnswered(ranknoadjustreasons1)

TEXT others_reasns

B11.How frequently did you update yourself on the pandemic situation in the country during the last wave? If yes, how often?

SINGLE-SELECT B11

01 ○ Daily
02 ○ Weekly
03 ○ Monthly
04 ○ I do not make any special efforts to be updated on this
05 ○ I expect others to inform me or warn me if important

B12B.Do you update yourself regarding the pandemic?

SINGLE-SELECT pandemicUpdate

01 ○ Yes
02 ○ No

B12C.If you update yourself regarding the pandemic, select the three most important sources of information?

E pandemicUpdate==1

MULTI-SELECT: ORDERED pandemicinfosrc

01 ☐ Radio
02 ☐ TV
03 ☐ Newspapers
04 ☐ Internet
05 ☐ Religious leaders
06 ☐ Political leaders
07 ☐ Health personnel
08 ☐ Others

B13.Is internet an important source of information?

SINGLE-SELECT pandem_internetsources

01 ○ Yes
02 ○ No

B13B.If internet is an important source of information, which websites are your main sources of information? Websites:

E pandem_internetsources==1

TEXT pandem_internetsources2

B14.Who do you respect/trust the most and follow the advice of in relation to the pandemic?(Select your three most respected on list)

E IsAnswered(pandem_internetsources)

MULTI-SELECT: ORDERED Respect_info

01 ☐ Religious leader
02 ☐ Political leaders
03 ☐ Health Personnel
04 ☐ University Leaders
05 ☐ Best friends
06 ☐ Parents
07 ☐ Others

PERCEPTION ABOUT THE BEHAVIOR OF OTHERS RELATED TO THE PANDEMIC

O1. Do you think that other students behave in a responsible way in relation to the pandemic?

SINGLE-SELECT — O1_othstudbehav

- 01 ○ Yes
- 00 ○ No

O2.how big share of the students at LUANAR do you think are too careless and can therefore contribute to the spread of the virus?

E IsAnswered(O1_othstudbehav)

SINGLE-SELECT — O2_careless_stud

- 01 ○ 1-20%
- 02 ○ 21-40%
- 03 ○ 41-60%,
- 04 ○ 61-80%,
- 05 ○ 81-100%

O3.How big share of the students are against the recommended protective measures?

E IsAnswered(O2_careless_stud)

SINGLE-SELECT — O3_studagainstprotact

- 01 ○ 1-20%
- 02 ○ 21-40%
- 03 ○ 41-60%,
- 04 ○ 61-80%,
- 05 ○ 81-100%

O4.How big share of the students are against getting vaccinated against COVID-19?

E IsAnswered(O3_studagainstprotact)

SINGLE-SELECT — O4_sharestudantivac

- 01 ○ 1-20%
- 02 ○ 21-40%
- 03 ○ 41-60%,
- 04 ○ 61-80%,
- 05 ○ 81-100%

O5.How big share of the students are believing that their religion/God protects them against the pandemic

E IsAnswered(O4_sharestudantivac)

SINGLE-SELECT — O5_studreligprot

- 01 ○ 1-20%
- 02 ○ 21-40%
- 03 ○ 41-60%,
- 04 ○ 61-80%,
- 05 ○ 81-100%

O6.How big share of the students believe that the vaccine is more dangerous than the corona virus itself?

E IsAnswered(O5_studreligprot)

SINGLE-SELECT — O6_COVvacriskiercorona

- 01 ○ 1-20%
- 02 ○ 21-40%
- 03 ○ 41-60%,
- 04 ○ 61-80%,
- 05 ○ 81-100%

O7.How big share of the students believe that the corona virus is no serious threat to them and therefore ignore it?

SINGLE-SELECT — o7corona_NOthreat

- 01 ○ 1-20%
- 02 ○ 21-40%
- 03 ○ 41-60%,
- 04 ○ 61-80%,
- 05 ○ 81-100%

O8.How big share of the students believe that traditional medicines are better at protecting against corona infection/COVID-19 than the vaccines?

E IsAnswered(o7corona_NOthreat)

SINGLE-SELECT — O8_sharestudtradmedicine

- 01 ○ 1-20%
- 02 ○ 21-40%
- 03 ○ 41-60%,
- 04 ○ 61-80%,
- 05 ○ 81-100%

O9.Are there some special events that have changed your opinion/attitudes/behavior about the corona pandemic/COVID-19 risk? E IsAnswered(O8_sharestudtradmedicine)	SINGLE-SELECT O9_specialeventseffect 01 ○ Yes 00 ○ No
O10.If yes to O9, what was this event or events that changed your attitudes/opinion/behavior? Explain E O9_specialeventseffect==1	TEXT O10_whatevents .....
O11.Have students changed their behavior related to the latest corona variant (omicron) compared to earlier variants?	SINGLE-SELECT omicronbehavior 01 ○ Yes 00 ○ No
O12.If the students have changed their behavior related to the latest wave of the pandemic, explain what change in behavior you observe E omicronbehavior==1	TEXT omicronbehav2 .....