



MINISTRY OF INTERNALLY DISPLACED
PERSONS FROM THE OCCUPIED
TERRITORIES, LABOUR, HEALTH AND
SOCIAL AFFAIRS OF GEORGIA

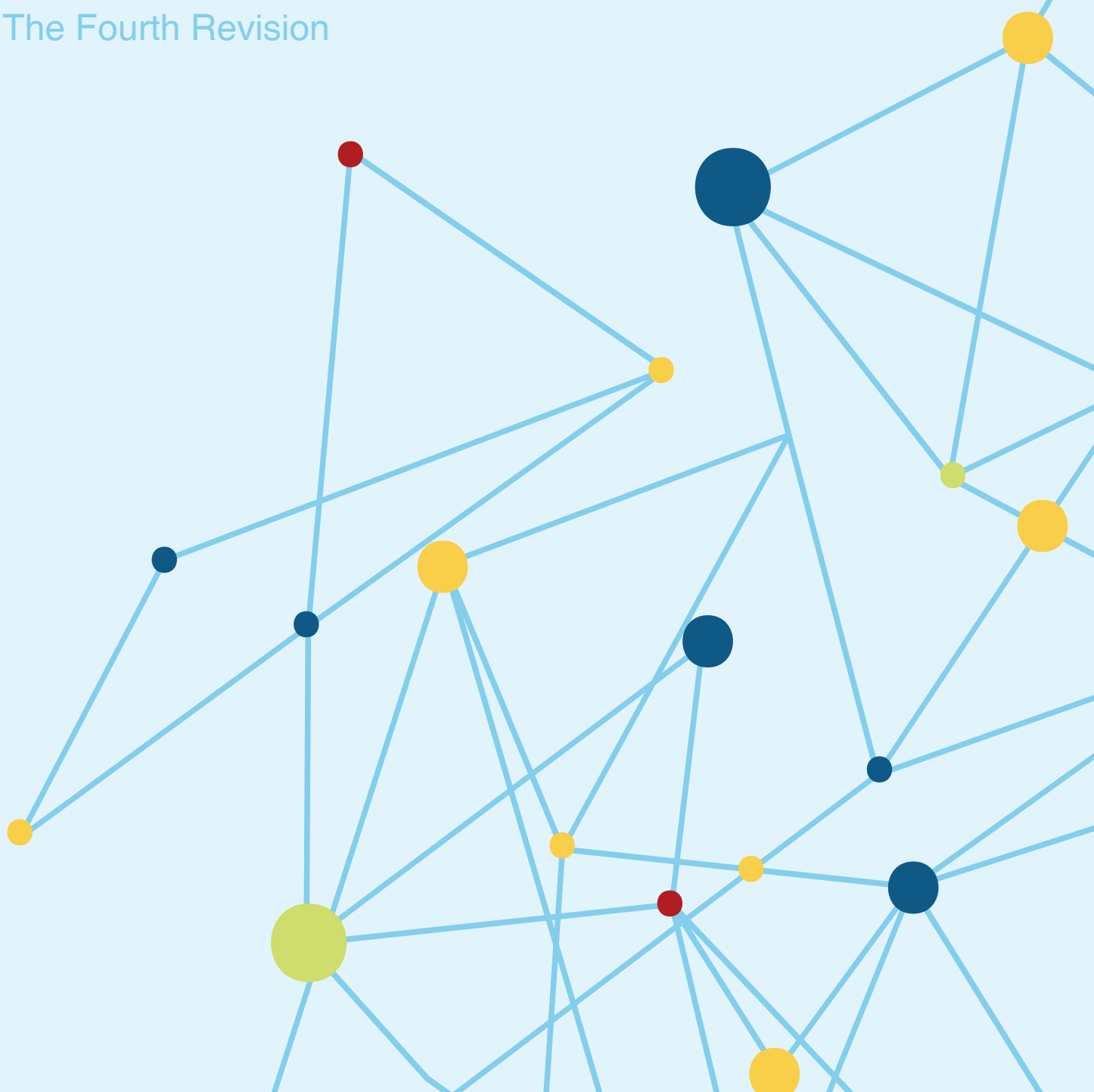


GEORGIAN NATIONAL CENTER FOR DISEASE
CONTROL AND PUBLIC HEALTH

COVID - 19 in Georgia

Report of the National Center for
Disease Control and Public Health

The Fourth Revision



Acknowledgments

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National Center for Disease Control and Public Health

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Introduction

Coronavirus 2, same as SARS-CoV-2, associated with the Severe Acute Respiratory Syndrome, initially referred to as 2019-nCoV and later officially named as COVID-19 by the World Health Organization (WHO), emerged in Wuhan (Hubei Province, China), in December, 2019, and later spread quite rapidly beyond the borders of China. The WHO declared the public health emergency of international concern on January 30, 2020, and a pandemic on March 11. As of October 1, 2020, 33 722 075 people were infected in 216 countries and 1 099 270 deaths were reported¹. This is the third zoonotic coronavirus outbreak in the 21st century, when the human-to-human transmission of the infection occurred and caused a global health challenge. Although COVID-19 is characterized by a high frequency of transmission, the identified cases differ with their severity from asymptomatic to fatal. Various factors, including age, gender, and (underlying) chronic diseases, are thought to be associated with a negative outcome.

Since identification of the first confirmed cases to date, organized management of the pandemic and its constant control have been priorities of the government of Georgia and the whole country. As a result of taken measures, the country was able to contain the large-scale, uncontrolled spread² of the epidemic. Georgia is one of the countries that started preparing for the epidemic at an early stage. The steps taken by the Government for containment of the infection and overcoming the crisis have mitigated the potential damage caused by the virus. The country intensively implements anti-epidemic measures (detection, tracing, isolation, surveillance), expands the scope of testing, continuously monitors the quality of conducted tests, performs consistent seroprevalence studies, ensures risk communication, encourages observance of preventive measures and monitors their fulfilment (mask wearing, social distancing, observance of sanitary-hygienic rules, refraining from being in crowded places) and treats all confirmed cases (at inpatient facility, special COVID-hotel and in self-isolation under primary healthcare supervision).

The Interagency Coordination Board, established on January 28, 2020, under the leadership of the Prime Minister, developed and introduced a set of actions to prepare the country and implement effective response measures, which ensured prevention of overcrowding in the healthcare sector. Created “window of opportunity” gave the country possibility to improve logistics, create supplies, ensure clinical readiness and accumulate experience. This led to designing 6 –phase plan by the Interagency Coordination Committee for gradual lifting of restrictions and reopening the industries representing importance for the country’s economy.

The National Center for Disease Control and Public Health (NCDC) has played an important role in Georgia's response against COVID-19. Responsibilities of the Center, among others, involve readiness and response measures. These include real-time epidemiological surveillance, management of new coronavirus laboratory diagnostics, supervision of compliance with standards, epidemiological surveillance over identified and suspected cases, contact tracing, isolation recommendations, and monitoring.

As a result of the conducted measures, from the first confirmed case (February 26) through the summer period, Georgia had a low rate of virus spreading (*effective $R < 1$, average doubling period = 19.8 days*), low incidence rate (*maximum incidence of the first wave peak period, cumulative figure for 14 days of April, 6.27 per 100 000 of population*) and the scope of testing got expanded (*daily capacity to test 16 000 samples*). It is noteworthy that due to the favorable epidemiological situation, the restrictions were lifted in an expedited manner and the implementation of certain stages was moved forward. It became possible to resume domestic tourism in June and to create the so-called “safe corridor”

¹ <https://covid19.who.int/>

² Epidemiological situation and country data as of the report publication date are presented in Annex 1

starting from July and accept citizens from "green countries". For additional security, epidemiological corners and PCR testing points were organized at international border checkpoints, where random testing of foreign tourists, mandatory testing of all international truck drivers and health screening of Georgian citizens are performed and mandatory placement in 8-day quarantine zone is organized.

Since the beginning of the pandemic, within the scope of the healthcare sector preparation, 25 primary healthcare facilities have been mobilized, the number of which is growing and which, in response to incoming calls to – 112, a specially designated hotline, communicate with and monitor patients. The principle of geographical access was taken into account in the selection of these clinics. A total of 2,500 physicians from 244 facilities (90% of family physicians and 75% of rural physicians) were trained in COVID-19 early diagnosis and infection control, and 405 medical personnel were retrained to provide supervision in quarantine zones. In order to address further possible waves, the country has allocated COVID-19 patients based on the territorial principle and respectively allocated 1,618 beds for critical care and 3,279 hospital beds. The country's healthcare sector is on high alert for the significant increase in new COVID-19 cases, both for inpatient surveillance of hospital cases, as well as for low-risk asymptomatic and mild cases at home and in specially designated quarantine hotels. Seroprevalence studies are regularly conducted in various regions to assess the disease prevalence in the country, and ongoing monitoring is ensured through baselines.

With lifting of restrictions and the arrival of the tourist season, amid increased mobility, a gradual increase in cases was predicted in regions where mobility was particularly intense. Consequently, despite remaining at the green alarm level, the other regions of Georgia, outbreaks have been recorded in the Black Sea resort region. Significant increase in cases and prevalence in the Autonomous Republic of Adjara has led to the introduction of local restrictive measures. The share of new cases detected in the Autonomous Republic of Adjara in the total number of new cases varies in the range of 63-72%. There are 730 beds in the COVID clinic in the region to receive confirmed cases and more than 1,000 rooms in the COVID hotel for monitoring low-risk asymptomatic and mild cases who do not have self-isolation facilities. Also, confirmed cases are managed at home in self-isolation conditions by primary healthcare facilities. In addition, some restrictive measures are being implemented in Adjara (public movement on preventive measures has been activated, operation of intercity and intracity public transport has been banned, training and work have been transferred to remote mode, intensified anti-epidemiological measures and testing are being conducted), which are strictly controlled by the state. These activities are being implemented in order to maintain Georgia's status as a safe country.

This document represents the fourth summary analysis of the epidemiological situation and measures taken against spread of the new coronavirus in Georgia. The data presented in this report are reflected as of September 30, 2020. Respectively, all indicators are presented for the reporting period, unless specified otherwise. This type of analysis will be regularly updated.

Testing and Contact Tracing

Testing with PCR³ method to detect COVID-19 in Georgia began on January 30, 2020. All COVID-19 infection cases were confirmed through PCR testing⁴.

For PCR testing, nasopharyngeal swab, or sputum, bronchoalveolar lavage (rinsing) or respiratory biopsy material may be taken, however, the other materials such as feces and / or blood and / or urine / or corpse tissue (from lung) with special indications can also be used for this type of testing.

The PCR method is regarded as the gold standard in the COVID-19 diagnostics. Its advantages are high sensitivity and specificity, which minimize the risk of false-positive (as well as false-negative) results. However, a single negative PCR result does not rule out COVID-19, especially if the nasopharyngeal swab or smear is taken at the early stages of the disease. It can be used in conditions where high-tech laboratory space and highly qualified staff are available.

Pursuant to the *Decree N 1 777 of the Government of Georgia (September 14) on Approving the List of Priority Persons Subject to Mandatory Testing for Coronavirus (SARS-CoV-2) Infection (COVID-19) and Testing Procedure*, subject to testing are cases according to the standard definition, contacts of confirmed cases, patients and medical personnel of respective medical facilities meeting specific criteria, any patient with the diagnosed pneumonia or fever (who have symptoms of respiratory disease or the treating physician makes the decision on testing), emergency medical personnel and disaster brigade staff, enrolled or prospective beneficiaries and staff of nocturnal special care facilities for the elderly and disabled, all persons who have been diagnosed with early-stage tuberculosis, persons placed in quarantine spaces and in self-isolation 24 hours prior to expiry of the period, staff of quarantine spaces, customs officers and border guards, personnel of inpatient hospital reception, intensive therapy and care, the Center epidemiologists and staff of COVID-19 PCR Laboratory and etc.

Under the Resolution N566 of the Government of Georgia of September 9, the amendments to *the Rules of Isolation and Quarantine* were introduced, and under the Resolution N576 of the Government of Georgia of September 14, the state programs for 2020 were changed. On September 14, 2020, the Minister of Internally Displaced Persons from the Occupied Territories, Labor, Health and Social Affairs of Georgia issued Decree № 01-455 /n *On Infection Control in Medical Institutions - Approval of National Recommendations (Guidelines)*⁵.

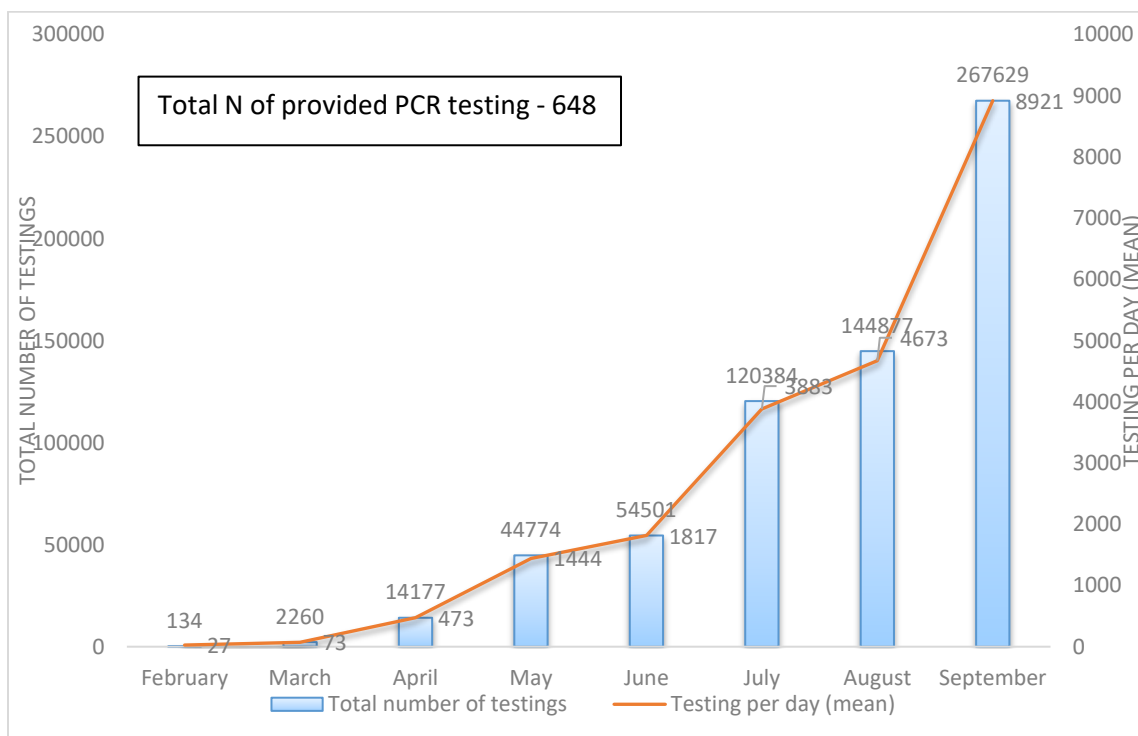
The number of PCR tests performed in the country from January 30 to September 30 was 648,736, including primary ones of 642,541.

³ Real time reverse transcription polymerase chain reaction / RT – PCR

⁴ Additional details about testing the potential and doubtful cases are presented in Annex 2

⁵ Additional information on measures undertaken in Georgia was provided in Annex 3

Figure 1. Dynamics of COVID-19 PCR Testing in Georgia



The positivity rate of PCR testing was 1.02% from the first confirmed case date to September 30.

Figure 2. COVID-19 PCR Testing Positivity Rate (%), Georgia

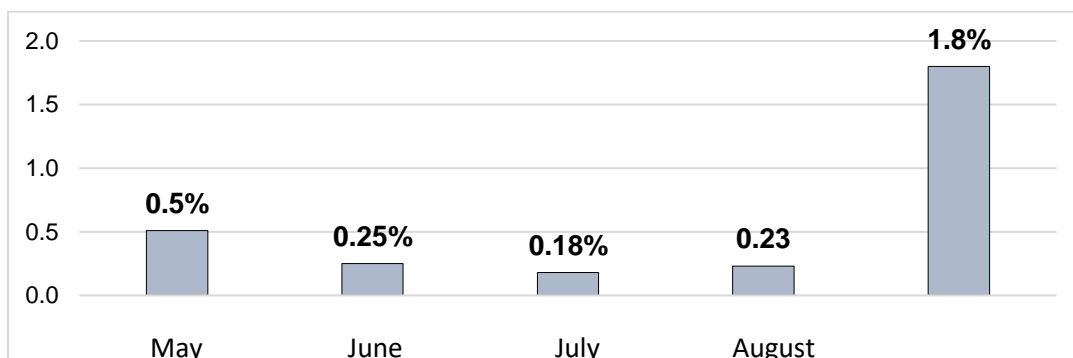


Figure 3. COVID-19 PCR Testing Positive in Europe and Georgia, 21.09.2020

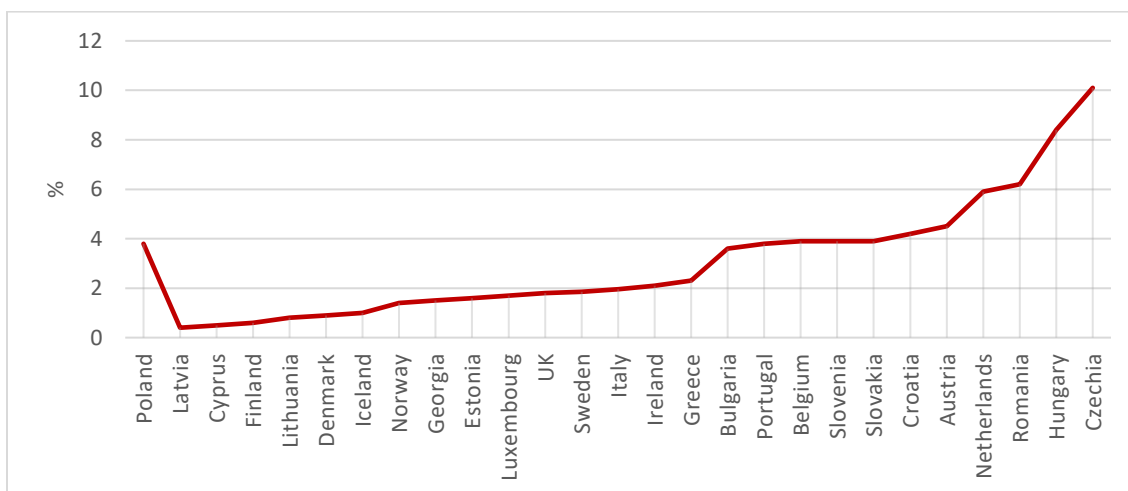
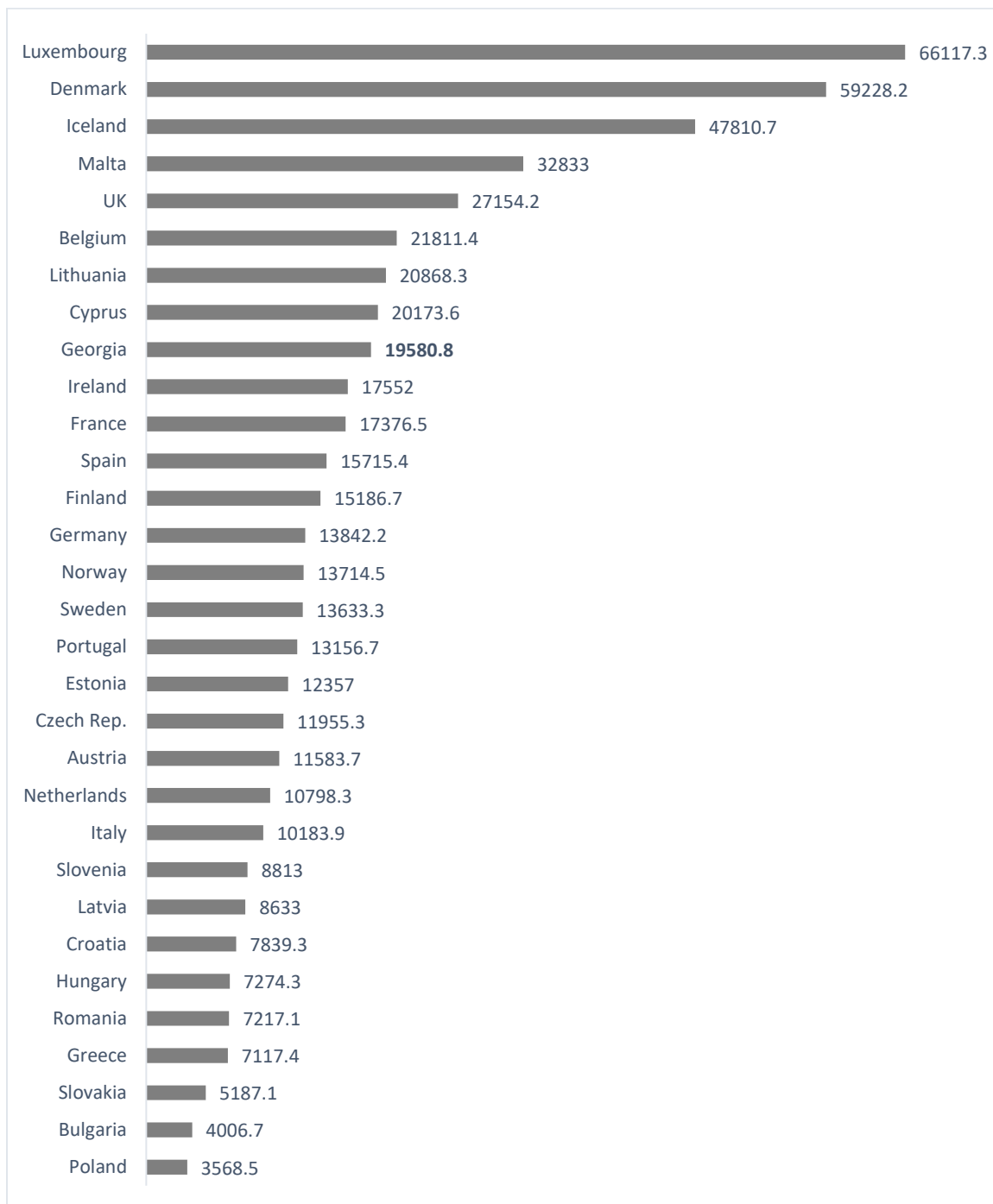


Figure 4. PCR Testing per 100,000 of Population in Europe and Georgia, 21.09.2020



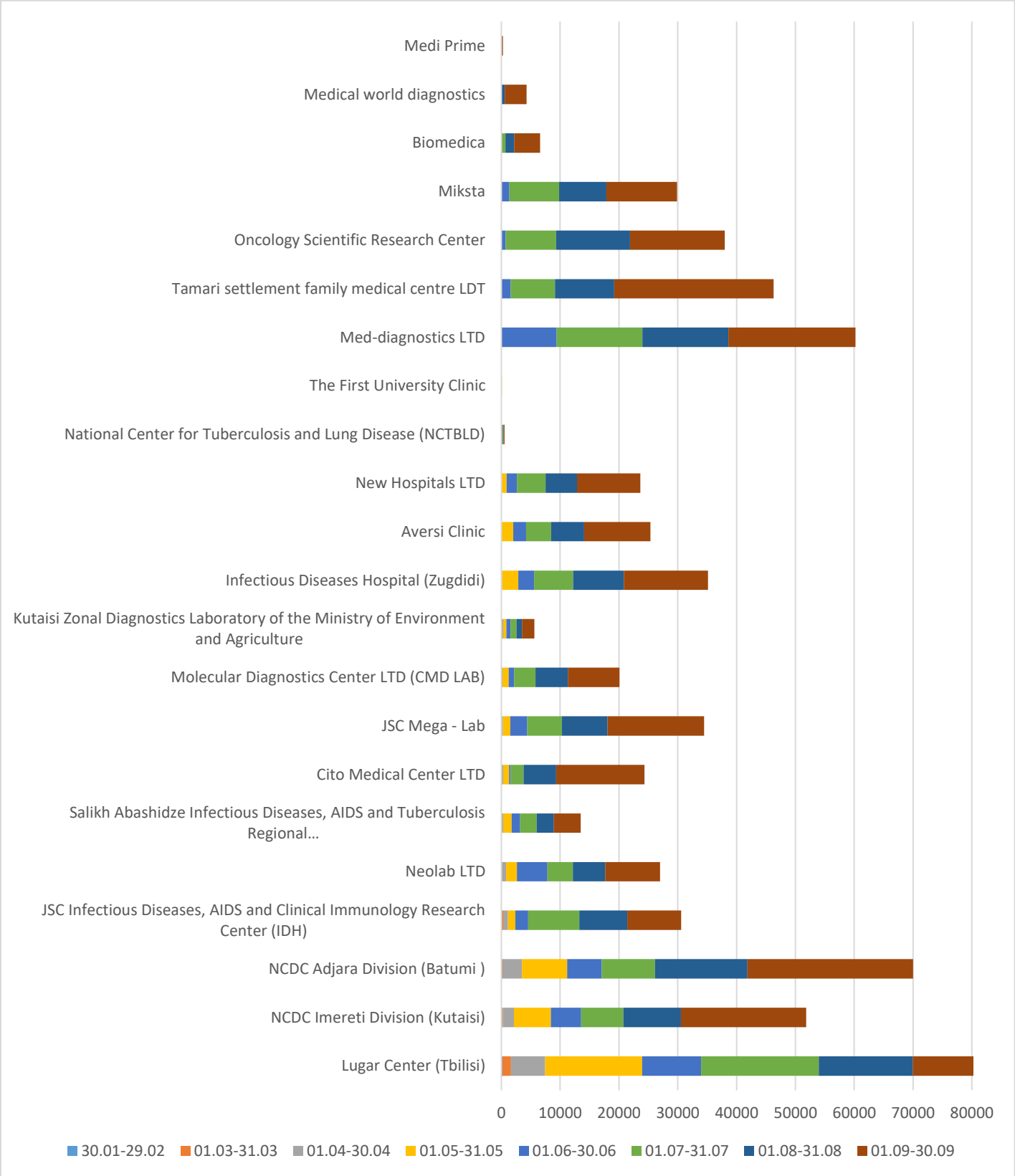
Source: ECDC, 28.09.2020

The Lugar Laboratory of the NCDC is actively involved in the epidemiological surveillance of various infectious agents. It is a reference laboratory, playing a leading role in the fight against SARS-CoV-2 infection and responsible for monitoring the laboratory part of these processes nationwide. The Lugar Center ensured training and distribution of SARS-CoV-2 external control panels within the framework of the state programs and the quality monitoring of the work performed by the program laboratories.

PCR testing during the period from January 30 to March 1, 2020, was carried out only by the Lugar Laboratory of the National Center for Disease Control and Public Health. Starting from March 1st, the other laboratories got gradually

involved in the testing process. Currently, 26 public and private laboratories are involved in COVID-19 testing program in parallel to the Lugar Laboratory.

Figure 5. Number of PCR Tests by Laboratories



As of September 30, the share of studies conducted by laboratories under the NCDC was 34% (May - 79%, July - 50%).

Table 1. Number of PCR Tests by Laboratories

	N of Tests	%
Lugar Laboratory (Tbilisi)	101 142	15,59
NCDC Adjara Division (Batumi)	70 003	10,79
Med Diagnostics LTD	60 204	9,28
NCDC Imereti Division (Kutaisi)	51 842	7,99
Family Medical Center of Tamari Settlement LTD	46 285	7,13
Oncology research Center LTD (Rustavi)	37 967	5,85
Infectious Disease Hospital (Zugdidi)	35 139	5,42
Mega-Lab LTD	34 482	5,32
Infectious Disease, AIDS and Clinical Immunology Research Center JSC	30 574	4,71
Miksta LTD (Kutaisi)	29 866	4,60
NeoLab LTD	26 968	4,16
Aversi Clinic LTD	25 358	3,91
Cito Medical Center LTD	24 317	3,75
New Hospitals LTD	23 614	3,64
Molecular Diagnostics Center LTD	20 102	3,10
Salikh Abashidze Infectious Diseases, AIDS and Tuberculosis Regional Center (Batumi)	13 479	2,08
Biomedica	6 578	1,01
Kutaisi Zonal Diagnostics Laboratory of the Ministry of Environment and Agriculture	5 618	0,87
Medical world diagnostics	4 289	0,66
National Center for Tuberculosis and Lung Disease JSC	525	0,08
Medi Prime	287	0,04
First University Clinic of the Tbilisi State Medical University LEPL	97	0,01
Total Number of Conducted Tests	648 736	100

In order to ensure availability of comprehensive information on COVID-19 testing, the NCDC developed an electronic module for laboratory examination, which collects and continuously improves data about COVID -19 testing. Information for the module is supplied by inpatient and outpatient service providers that either take test material, or conduct rapid testing or laboratory research; municipal / public healthcare agencies; relevant units of the National Center for Disease Control; Lugar Laboratory or labs of the other medical facilities.

In addition to PCR testing, the country is conducting serological studies - rapid simple tests in certain groups based on antigens and antibodies, however the cases are confirmed only by PCR testing. As of September 30, 176 642 rapid simple tests based on antibodies were performed in the country.

Figure 6. Dynamics of Antibody - Based Rapid Simple Tests

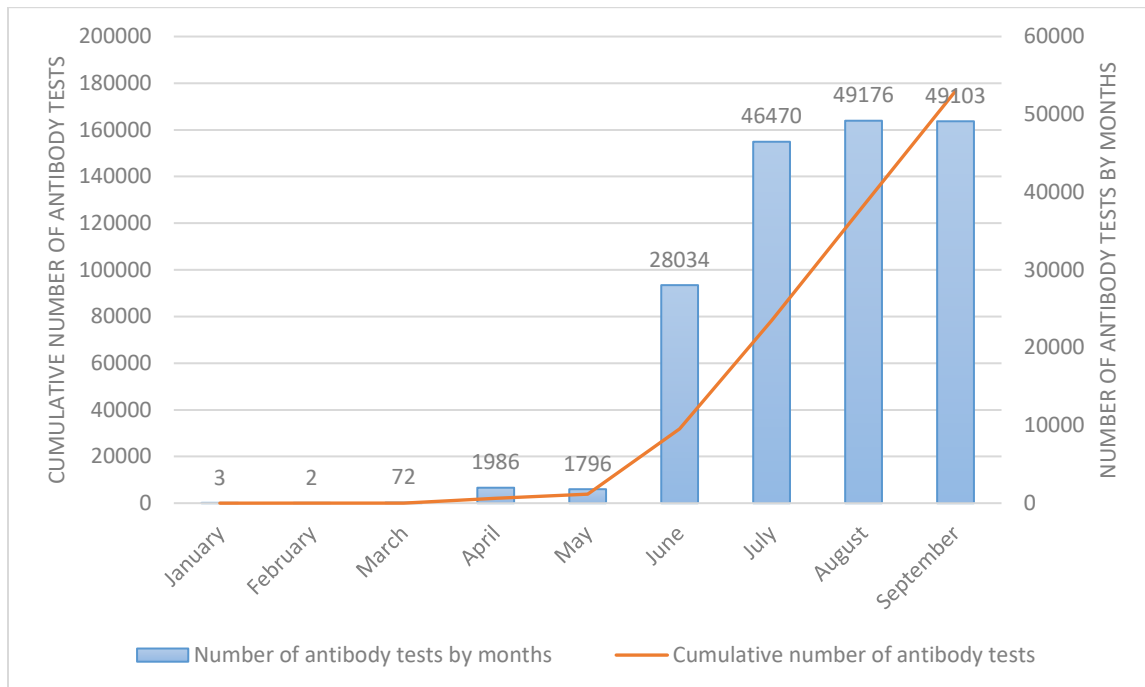
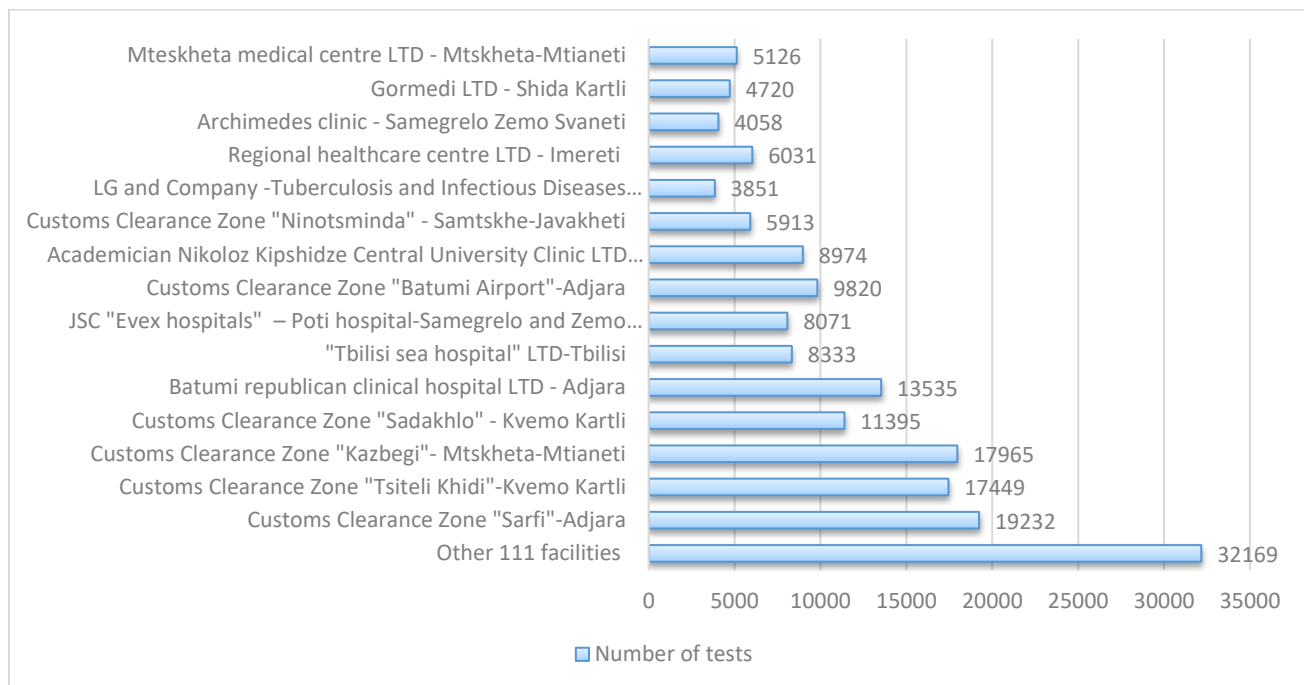


Figure 7. Number of Antibody – Based Rapid Simple Tests by Laboratories



As of September 30, 2020, the number of rapid antigen-based simple tests in the country was 167,532.

Figure 8. Dynamic of Antigen – Based Rapid Simple Tests

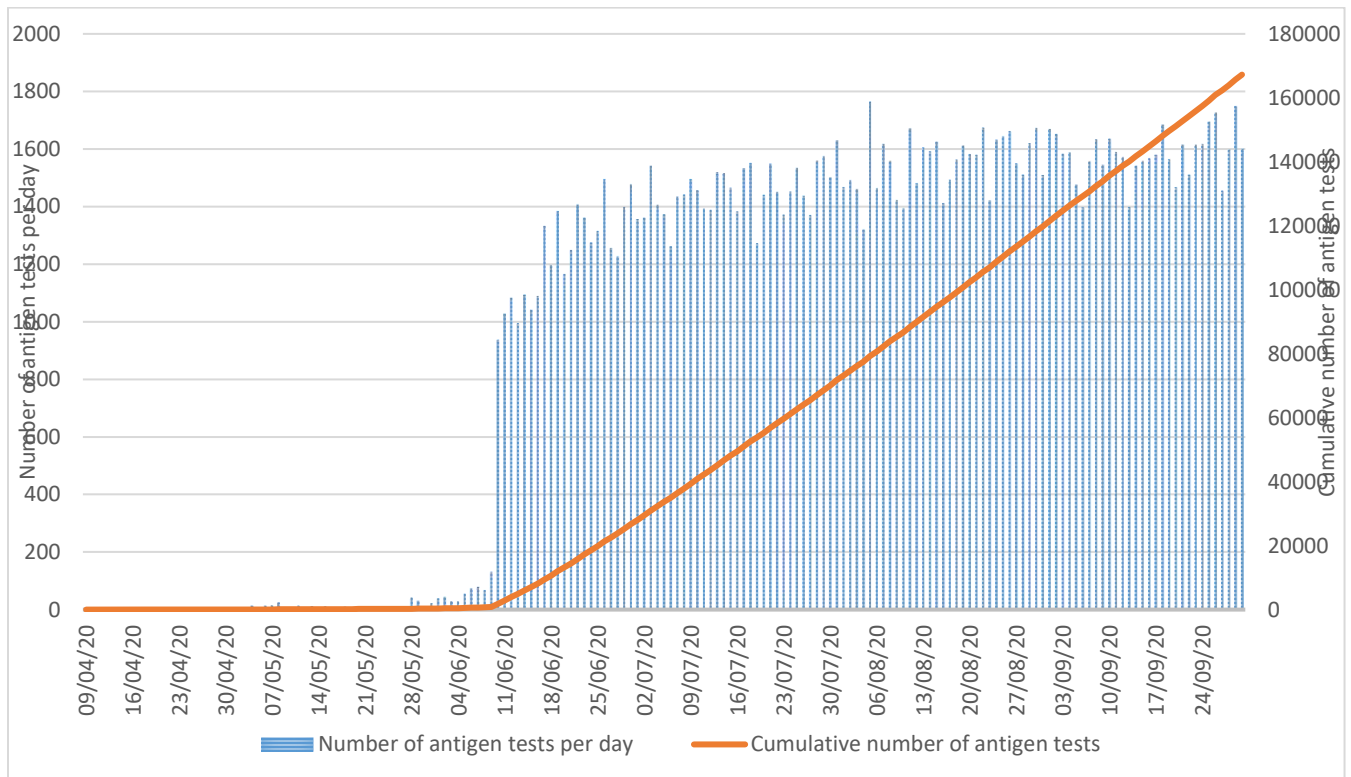
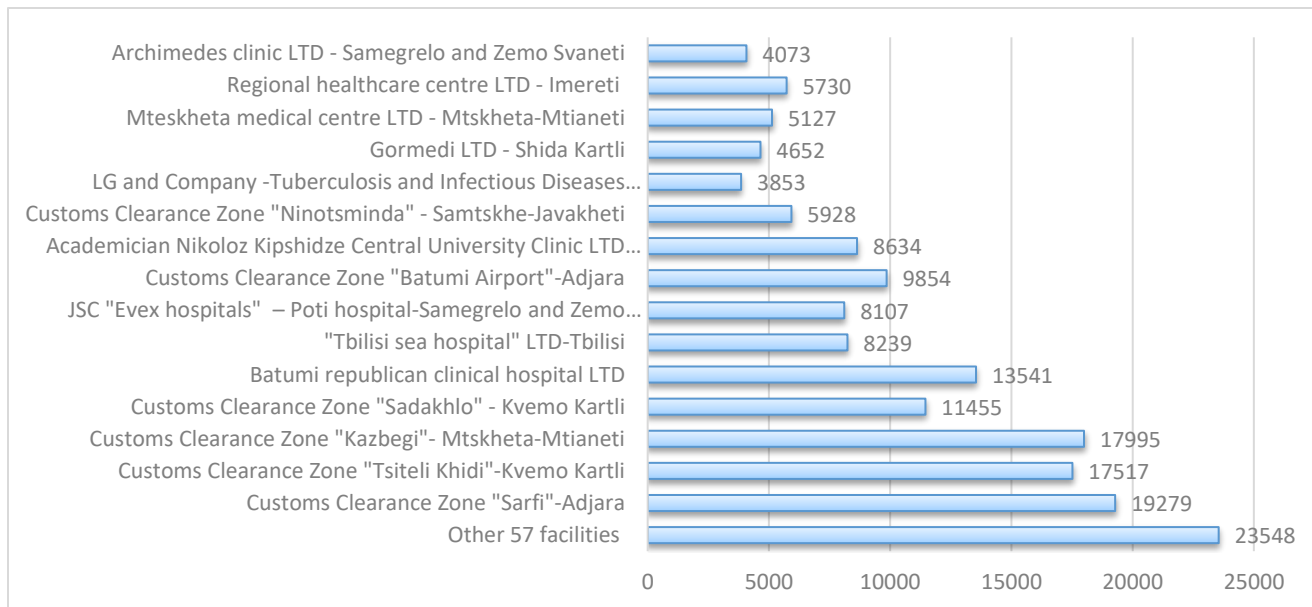


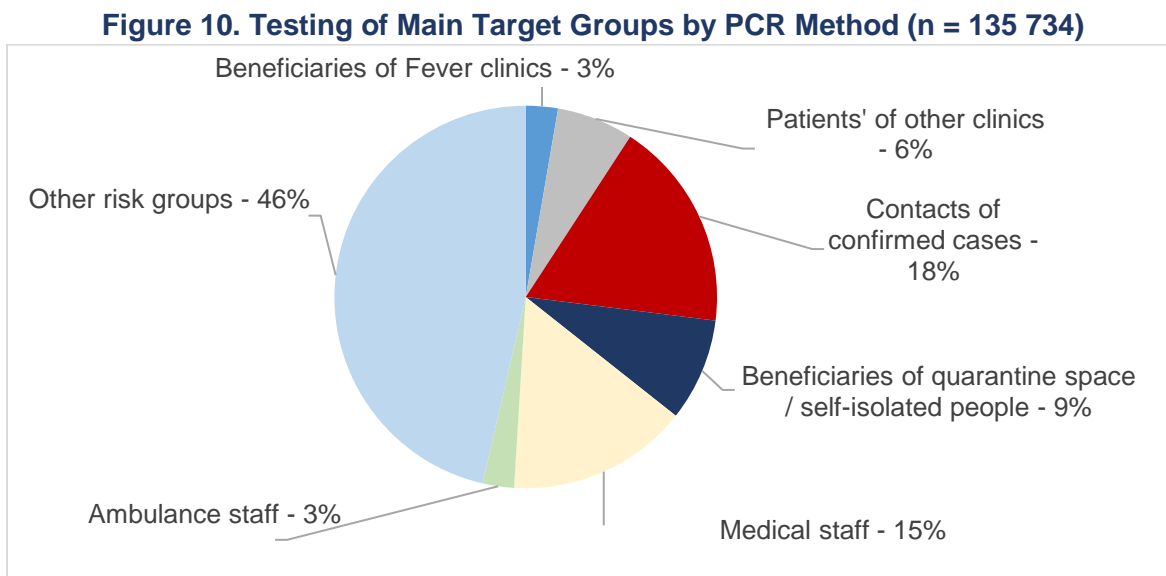
Figure 9. Number of Antigen – Based Rapid Simple Tests by Laboratories



Average number of rapid tests per day in September 2020 was 3,210.

Testing of Target Groups

Testing is routinely conducted in the country in accordance with the *Decree N 1 777 of the Government of Georgia (September 14) on Approving the List of Priority Persons Subject to Mandatory Testing for Coronavirus (SARS-CoV-2) Infection (COVID-19) and Testing Procedure*. As of September 30, 15% of PCR test objects by target groups was represented by medical care providers (excluding ambulance staff).



Contact Tracing

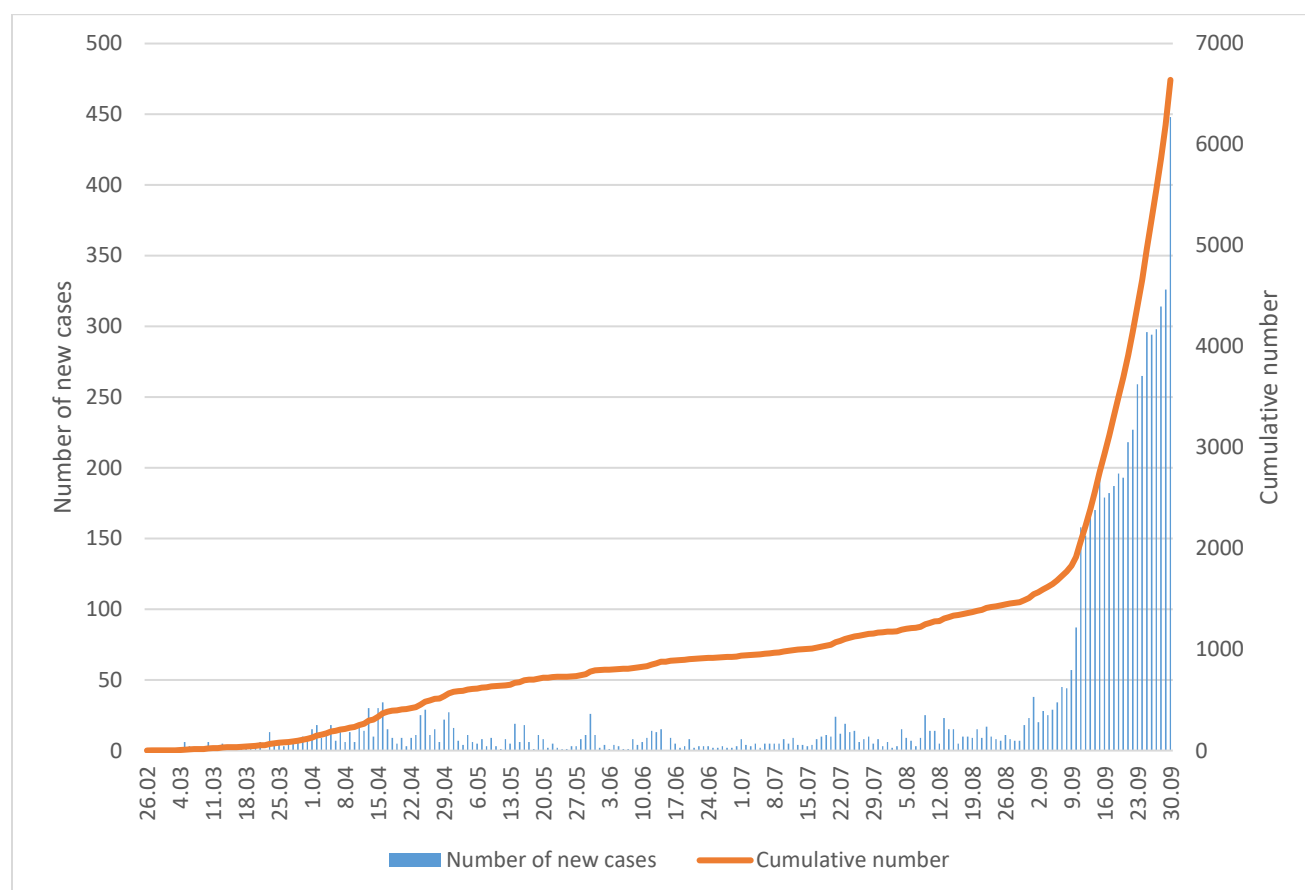
In case of each patient epidemiological investigation was conducted, telephone or face-to-face interviews were held about contacts, travel, existing symptoms of the infected persons and the other parameters. Outbreak clusters have been identified through epidemiological investigations. The most notable of the large clusters were the Adjara, Mestia, Bolnisi, Marneuli, Tetritskaro, Kobuleti, Saburtalo (Tbilisi District) and the other clusters, where additional in-depth investigation was carried out. In order to follow-up on the contacts, they were self-isolated or taken to a special quarantine area and further monitored.

As of September 30, 5 445 people were placed in quarantine zones of Georgia.

Morbidity and Mortality

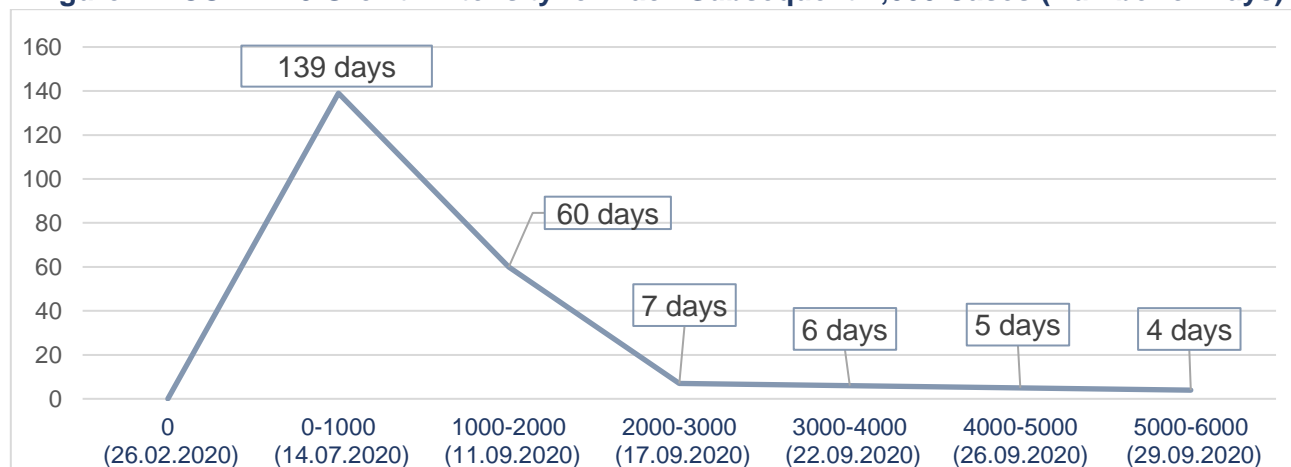
The first confirmed case in Georgia was registered on February 26. As of September 30, COVID-19 was confirmed overall for 6,640 people. Cumulative incidence per 100,000 of population equaled 178.6 (95% CI 174.4-182.9).

Figure 11. Daily and Cumulative Number of PCR Confirmed COVID-19 Cases



The growth rate of confirmed cases during this period was heterogeneous - at the first stage, it took 139 days to increase the number of cases to 1,000, while 60 days to double the number from 1,000 to 2,000. The trend of further growth accelerated sharply - the cases rose from 2,000 to 3,000 within 7 days, each subsequent thousands of cases were being recorded in a period less by one day - from 3,000 to 4,000 in 6 days, from 4,000 to 5,000 - in 5 days and from 5,000 to 6,000 - in 4 days.

Figure 12. COVID-19 Growth Intensity for Each Subsequent 1,000 Cases (Number of Days)



The incidence rate also corresponds to the rapidly growing dynamics of confirmed new cases - the incidence rate from February 26 to September 10 was changing slightly within the range from 0.1 to 0.7. Since September 10, amongst a sharp increase in confirmed cases, the incidence rate has increased 9-fold and equaled to 6.6.

Figure 13. 14 - Day Medium Daily Incidence Rate, Georgia 9.03 - 30.09.2020

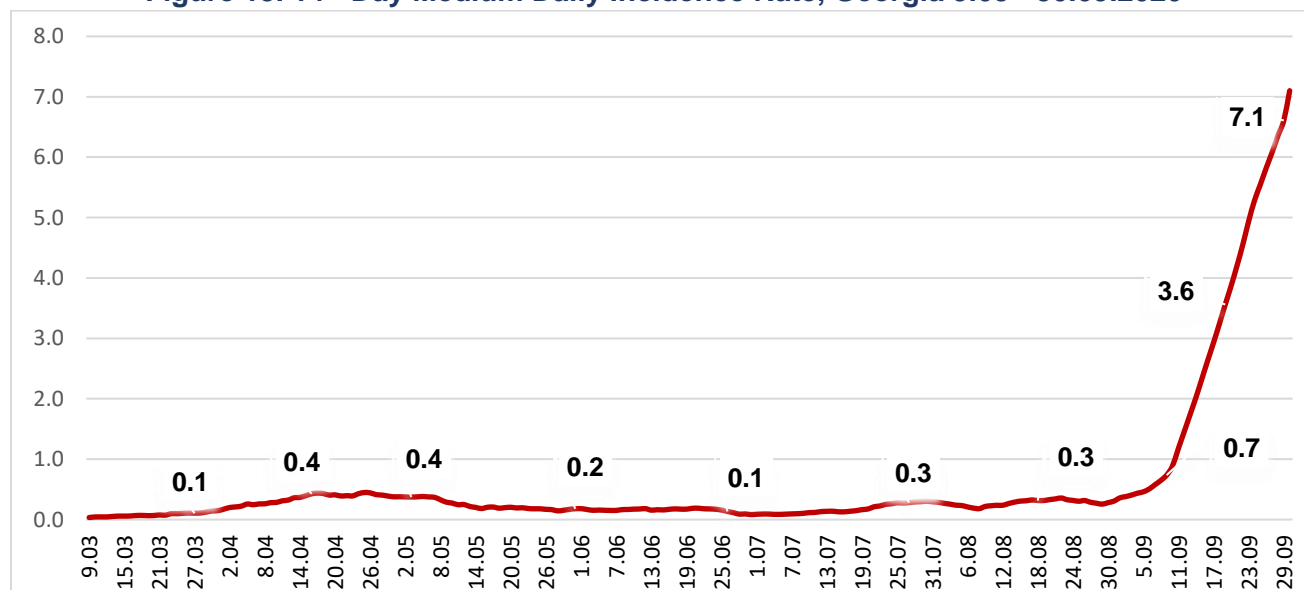
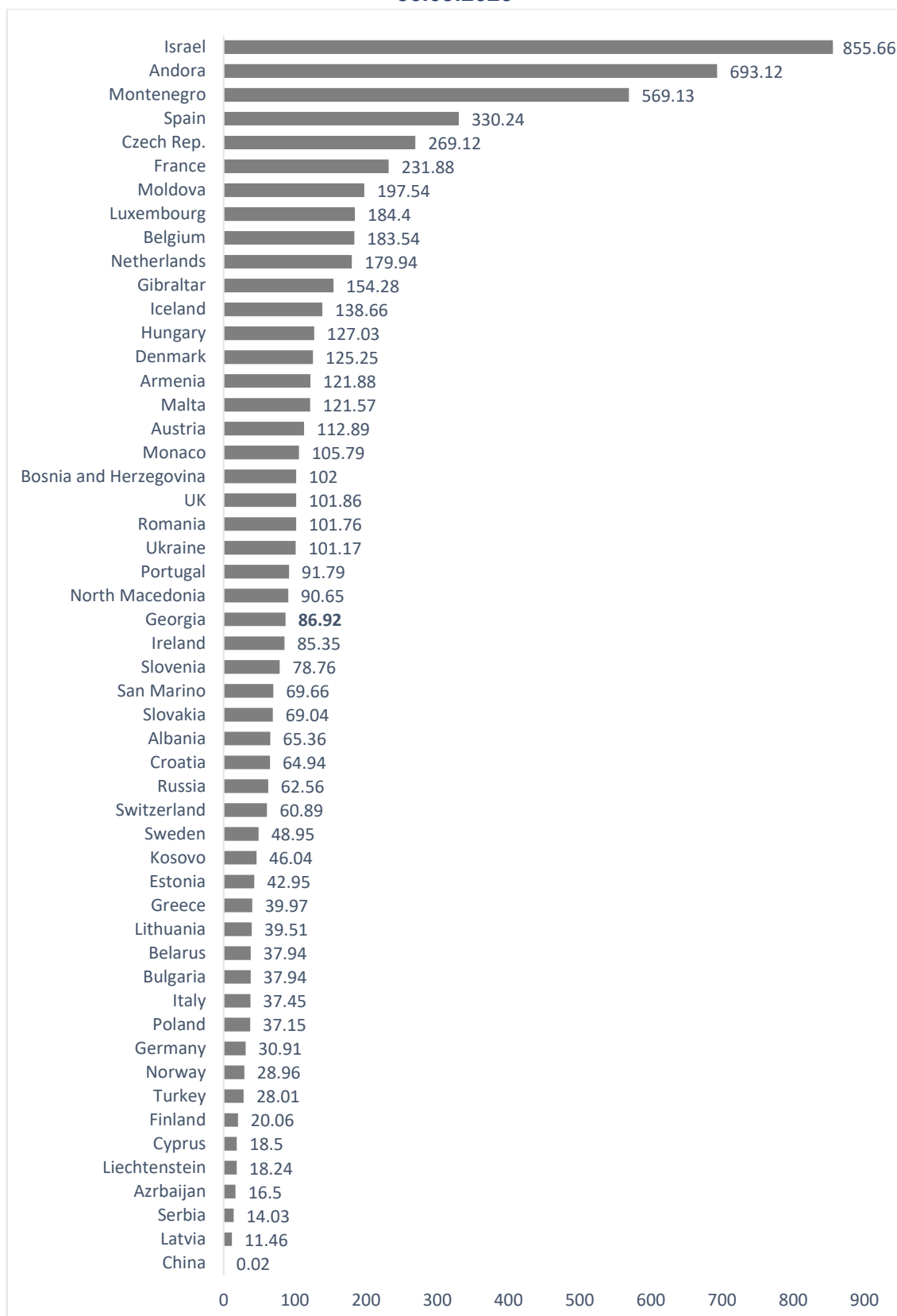


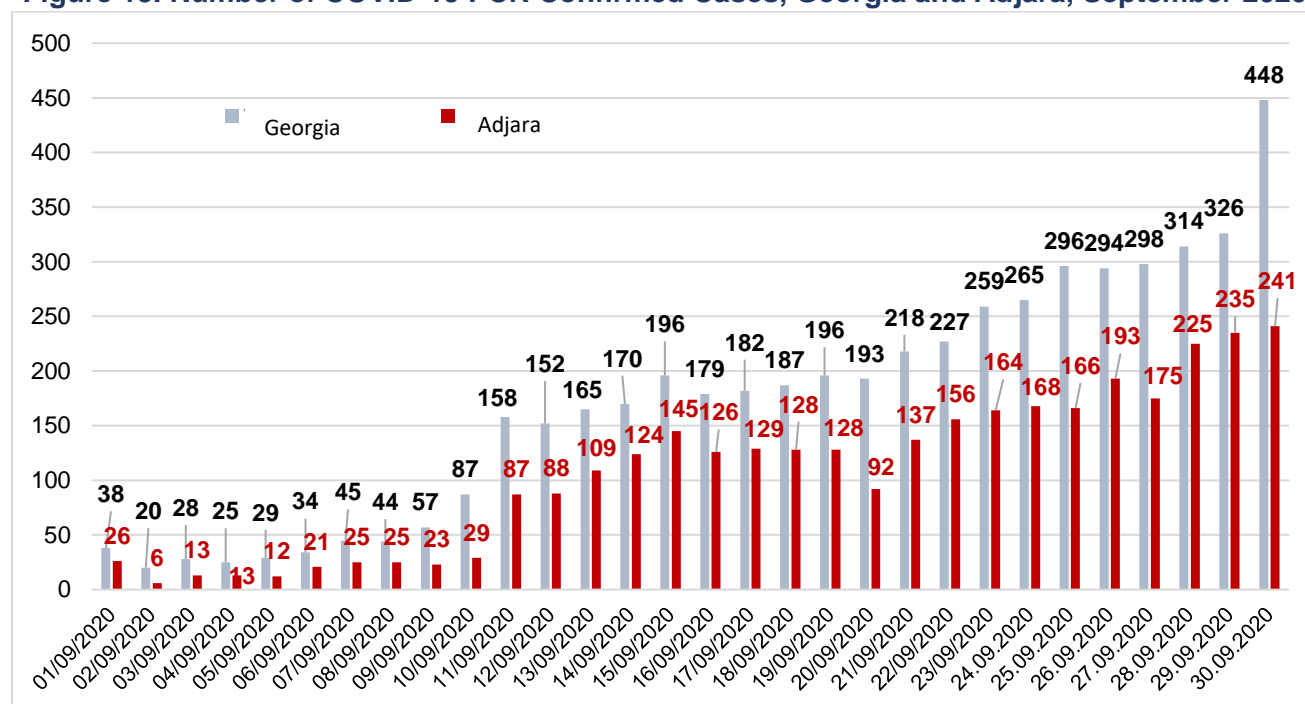
Figure 14. 14 - Day Average of COVID-19 Cumulative Incidence Rate, Europe and Georgia, 30.09.2020



Source: ECDC, 28.09.2020

The Black Sea resort region, the Autonomous Republic of Adjara, accounts for 62.5% of the confirmed cases in Georgia.

Figure 15. Number of COVID-19 PCR Confirmed Cases, Georgia and Adjara, September 2020



As of September 30, 2020, the 14-day average of COVID-19 incidence was 7.1 per 100,000 population.

In the other regions of Georgia, 14-day average incidence per 100,000 population was:

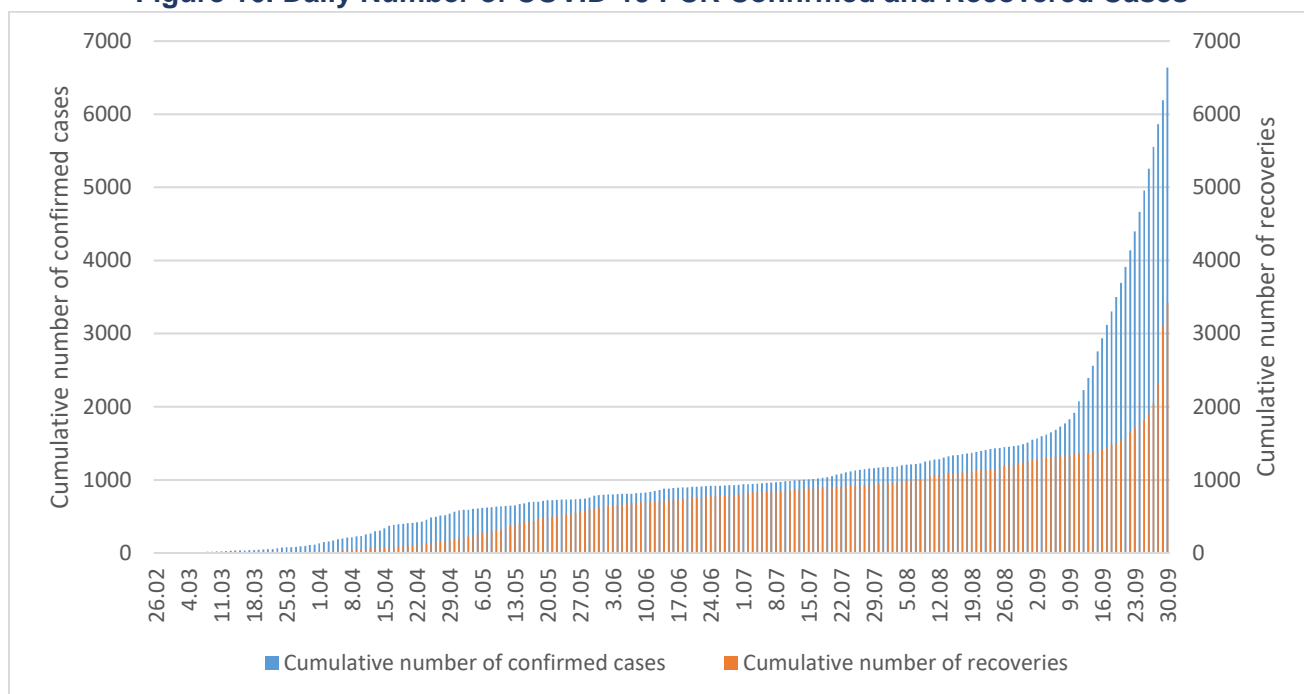
- Adjara- 47.6
- Guria - 6.2
- Tbilisi - 3.2
- Imereti - 6.6
- Samegrelo - Zemo Svaneti - 3.5

The 14-day cumulative incidence in the country was 99.7 per 100,000 population.

Among the other epidemiological features of the COVID-19 in Georgia, it is noteworthy that since the reporting date of the first case to the present report date (01.10. 2020) the average period of doubling the cases was 19 days, while the effective reproduction index R_t equaled 1.45 (95% CI 2.41 - 5.85).

The first COVID-19 patient was hospitalized on February 26, 2020 and the first recovered patient was discharged from the clinic on March 16. As of September 30, the total number of recovered patients constituted 3,419 (52%) people.

Figure 16. Daily Number of COVID-19 PCR Confirmed and Recovered Cases



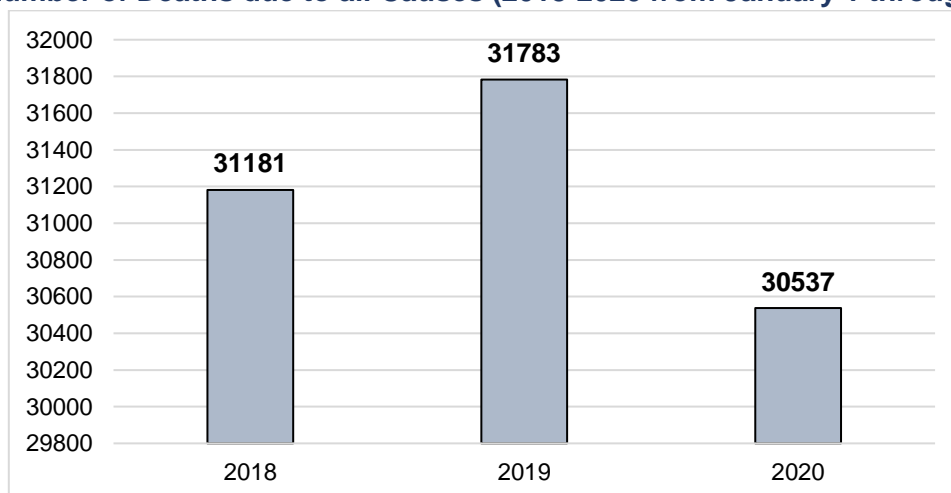
As of September 30, 39 cases ended with the lethal outcome (mortality rate 0.59%).

Apart from the number of COVID-19 infected cases, excess mortality is considered in many countries as one of the most significant indicators, to assess the impact (if any) the fast spread of the disease and associated deaths had on the mortality rate.

Excess mortality is defined as the mortality rate in the general population that exceeds the expected rate caused by a particular disease. Relatively high mortality rates for this stage are observed in Belgium, France, Sweden, Spain, Italy, England and the Netherlands.

The total number of deaths in Georgia during the first 8 months of 2020 is lower compared to the previous years: less by 4% compared to 2019 and by 2 % compared to 2018.

Figure 17. Number of Deaths due to all Causes (2018-2020 from January 1 through August 31)



From January 1, 2020 through September 30, 2020, the decrease in all-cause deaths was 30%, and from March 1 through August 31 (after the first confirmed case) - 18%.

Figure 18. Number of Deaths by all Causes by Months (January 1-August 31, 2018-2020)

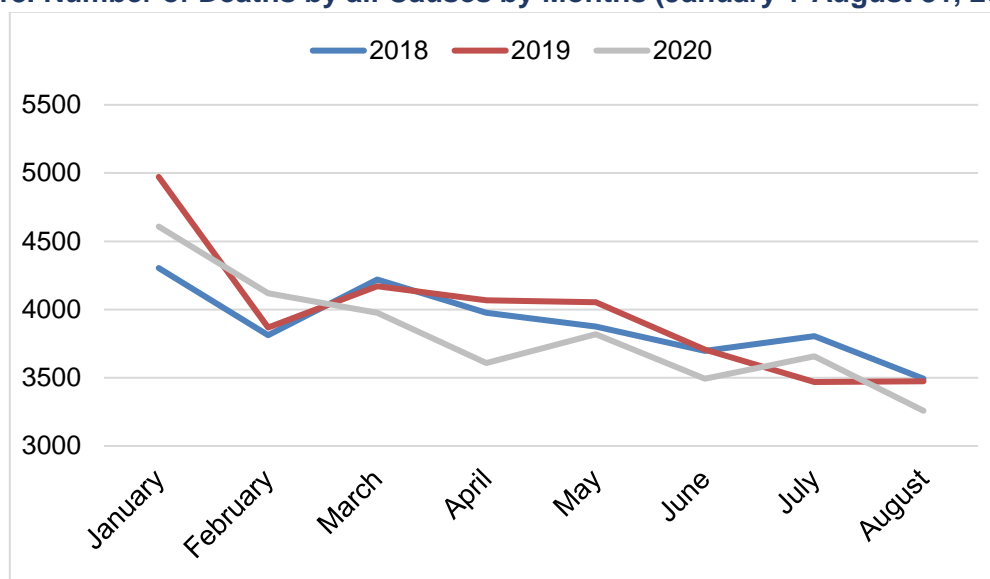
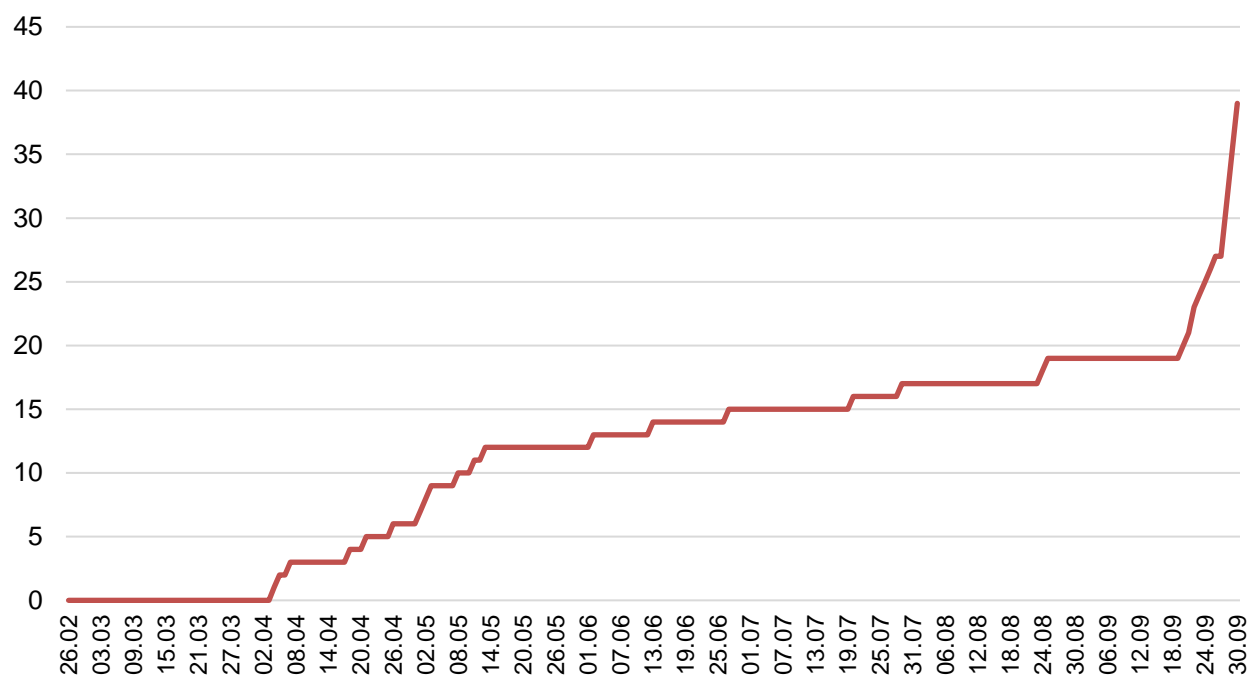


Figure 19. COVID-19 Cumulative Mortality from the First Confirmed Case through September 30, 2020, Georgia



Low mortality rates have been maintained during the pandemic period.

Figure 20. COVID-19 Mortality Rate (%) by Months, Georgia

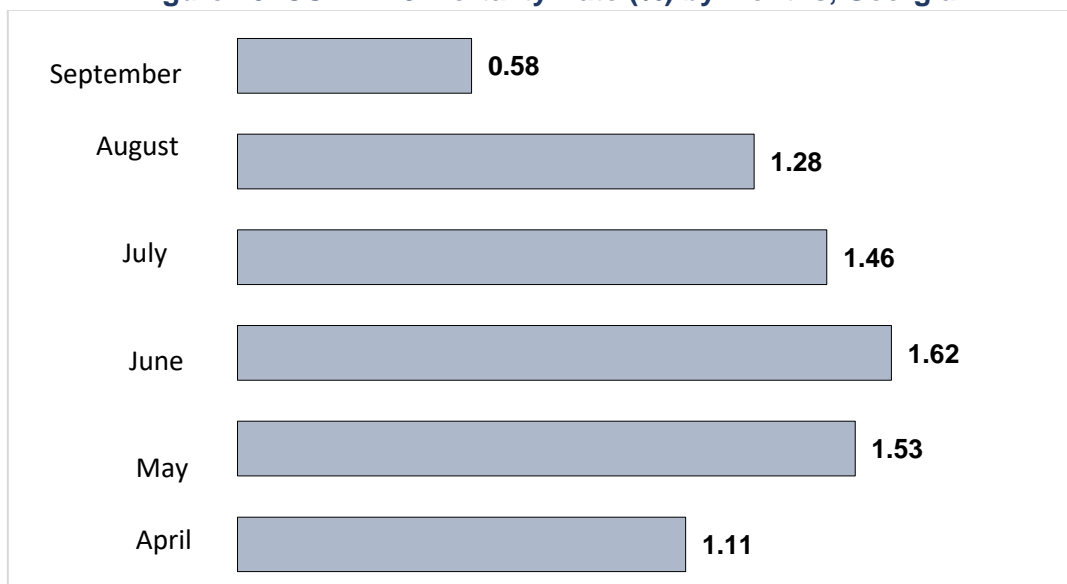
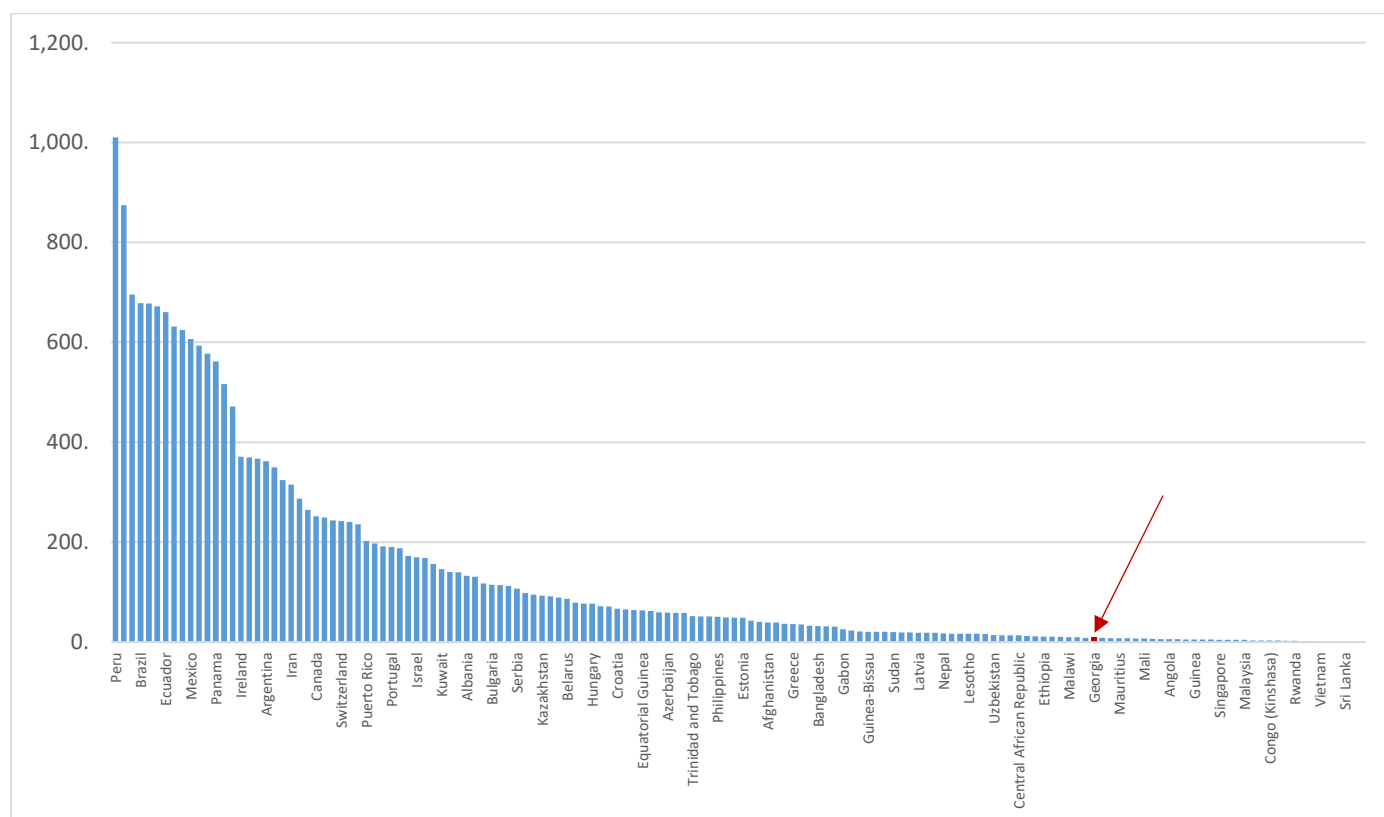


Figure 21. Mortality Rate due to COVID-19 per 1 Million of Population



Source: <https://statista.com>

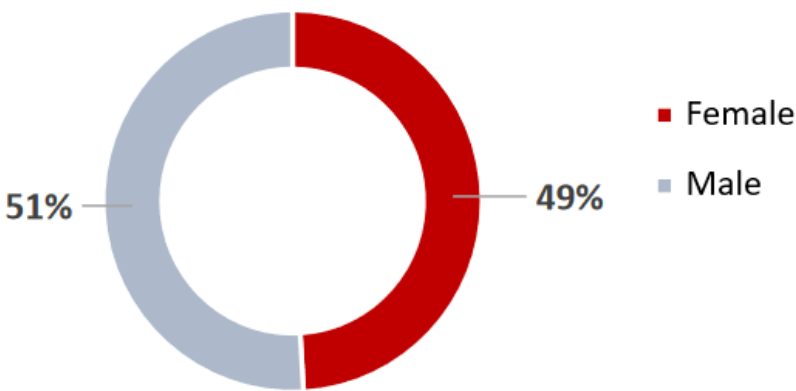
Epidemiological Survey, Pre-hospitalization and Hospitalization

Upon case confirmation, during the pre-hospitalization period, epidemiological study was conducted for each COVID-19 patient (confirmed by PCR method) to identify various characteristics.

Sex and Age Structure

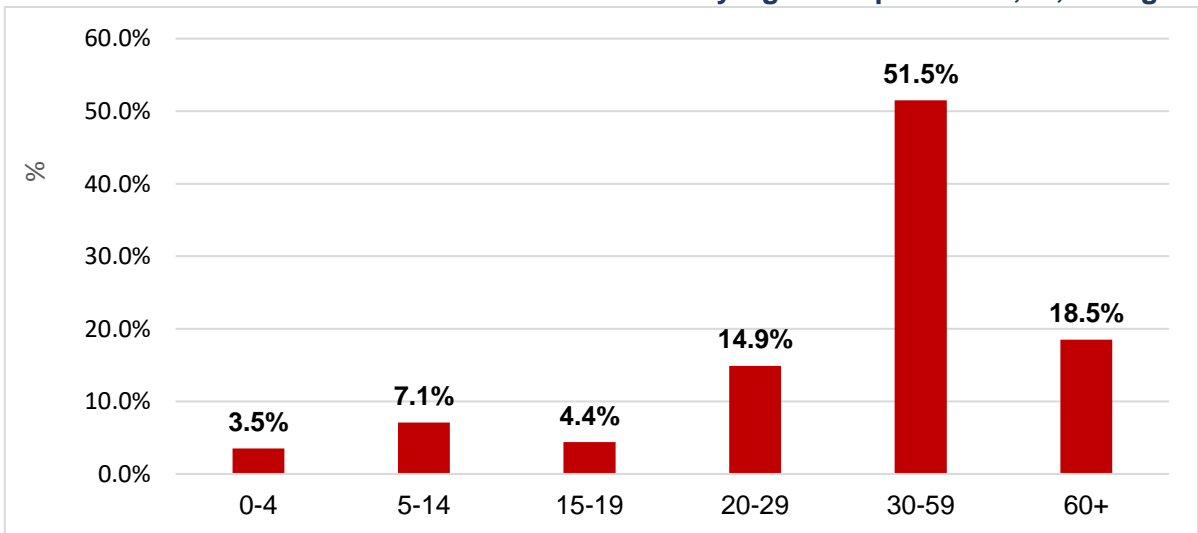
Among the PCR confirmed COVID - 19 cases, 51% were males and 49% females.

Figure 22. COVID -19 Confirmed Cases by Sex



The maximum age of patients was 95 years and the minimum 1 month. 0 – 18 year age group represented 13.4% of infection cases.

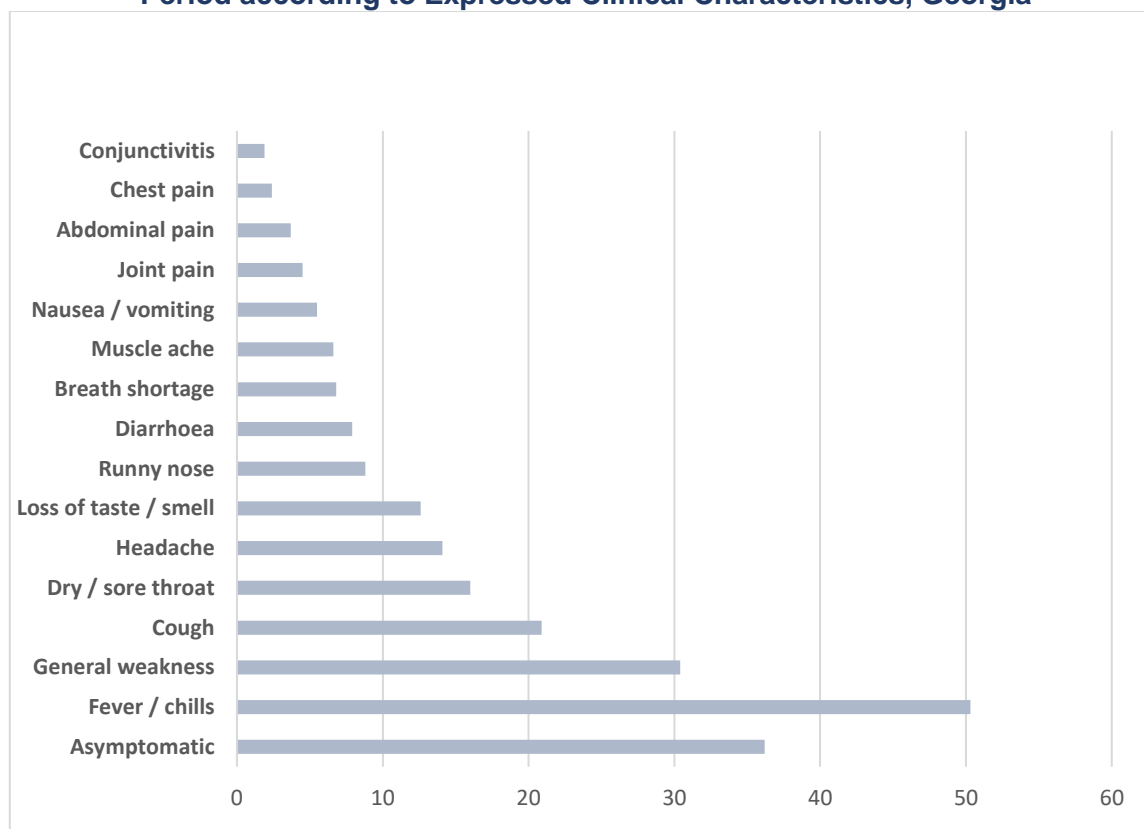
Figure 23. Distribution of COVID-19 Confirmed Cases by Age Group and Sex, %, Georgia



Clinical symptoms were analyzed prior to hospitalization. The information provided about the symptoms is based on the subjective assessment given by the infected at the time of laboratory confirmation of the diagnosis and does not include clinical diagnoses established by laboratory-instrumental examination.

The most common symptoms are fever (50.3%, 95% CI 47.58% - 53.02%), fatigue (30.4%, 95% CI 27.94% - 32.95%), cough (20.9%, 95% CI 18.74% - 23.19%), sore /dry throat (16%, 95% CI 14.07% - 18.08%) and headache (14.1%, 95% CI 12.27% - 16.09%). On the day of PCR diagnostics 36.2% (95% CI 31.90% - 40.67%) were asymptomatic during PCR testing⁶. However, with the course of the disease, some symptoms may appear later. A detailed study of the clinical course of all cases is ongoing and will be updated in the next report⁷.

Figure 24. Distribution of Confirmed Cases of COVID-19 for the Epidemiological Investigation Period according to Expressed Clinical Characteristics, Georgia



Gathering information about the intensity of symptoms has in some cases proved to be problematic due to a number of subjective and objective factors, namely, language barrier, recall bias, different approach to symptom perception, and stigmatization. These cases were concentrated in Kvemo Kartli and accounted for 57% of the cases detected in this region.

15.6% of the asymptomatic infected patients was represented by international truck drivers who were diagnosed through mandatory testing at the border checkpoints.

The characteristics of the disease progression during the hospitalization period were obtained through a special questionnaire that was completed for each patient discharged from hospital.⁸

⁶ An asymptomatic laboratory-confirmed case is a person infected with COVID-19 who does not develop symptoms (WHO Coronavirus disease 2019 (COVID-19) Situation Report - 73). The cases were classified as asymptomatic only based on patients' subjective judgment

⁷ The present report provides distribution of 1,330 confirmed cases by clinical characteristics prior to hospitalization

⁸ The present report provides data on 1,100 patients discharged from inpatient facilities of Georgia

Socio - Economic Characteristics

69.7% of hospitalized patients were married and 40.3% employed.

Table 2. Distribution of COVID-19 Diagnosed Patients Discharged from Inpatient Facility according to Some Socio-Economic Characteristics

		%
Marital Status	Married	69.7
	Other	26.6
	Unknown	3.6
Employment	Employed	40.3
	Unemployed	33
	Retired	8.6
	Child	10.8
	Unknown	7.3

Body Mass Index

Over 59.5% of patients were overweight or obese.

Table 3. Distribution of COVID-19 Diagnosed Patients Discharged from Inpatient Facility according to Body Mass Index

		%
Body Mass Index	<18.5	3.5
	18.5–24.9	32.2
	25–29.9	43.7
	30 and over	15.8
	Unknown	3.5

Complications Associated with the Underlying Health Conditions

In 44.5% of the 1,100 patients discharged from hospitals, the main disease complication was pneumonia.

Table 4. Distribution of COVID-19 Patients Discharged from Hospital by Complication of Major Disease

Major complications	%
Pneumonia	44.5
Respiratory failure	11
Acute cardiovascular failure	3.4
Respiratory distress syndrome of adults	3.2

Comorbidity

Information on comorbidity among all hospitalized patients was obtained from their inpatient cards. 26.3% of patients had various, predominantly chronic illnesses in addition to coronavirus disease. The most common concomitant diseases among patients are hypertension (14.7%), other-cardiovascular diseases (7.0%) and diabetes (6.8%).

Table 5. Distribution of Comorbidities among Patients Diagnosed with COVID-19 and Discharged from Hospital

Comorbidity	%
Hypertension	14.7
Cardiovascular diseases except for hypertension	7
Diabetes	6.8
Chronic kidney disease	3
Chronic lung disease	2.4
Malignant neoplasms	1.8
Viral hepatitis	1.9
Chronic liver disease	1.5

Severity of the Disease

The following criteria were used to determine the severity of the disease:⁹

- Mild / asymptomatic course - acute respiratory infection without pneumonia;
- Moderate progression - acute respiratory infection with pneumonia, without respiratory failure;
- Severe progression - acute respiratory infection with pneumonia and with or without respiratory failure and sepsis / septicemia;
- Critical progression - the need for managed respiration (non-invasive or invasive ventilation) in the following conditions: severe pneumonia, acute respiratory distress syndrome (ARDS), sepsis / septicemia, septic shock, poly-organic insufficiency.

Depending on the severity of the disease, 56.1% of cases were mild, while 34.7% moderate. In 9.2% of cases, the disease progression was severe or critical.

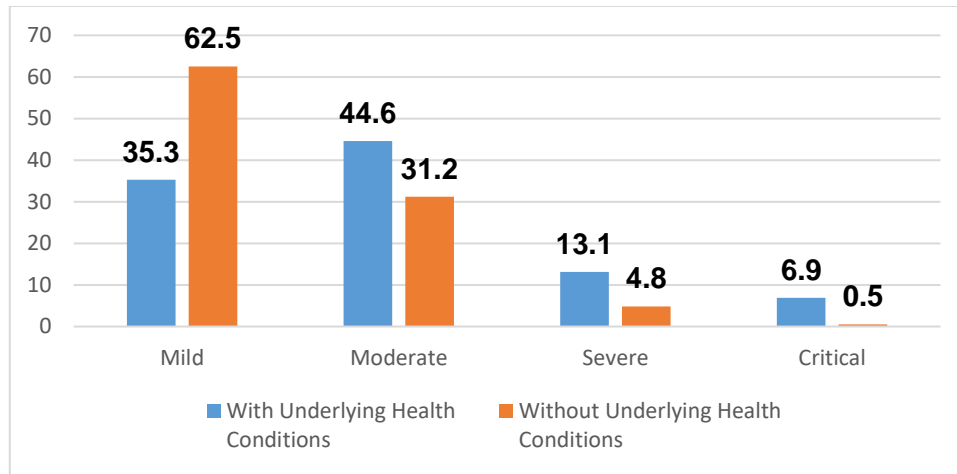
Table 6. Distribution of COVID-19 Diagnosed Patients Discharged from Hospital by the Severity of the Disease

Severity of Disease Progression	%
Mild	56.1
Moderate	34.7
Severe	7
Critical	2.2

The severity of the disease progression varied considerably depending on the presence of concomitant illnesses. In patients who did not have concomitant diseases (73.7%), infection was mild or moderate in 94.7%. In 20.1% of cases, with concomitant aspects, the disease was severe or critical.

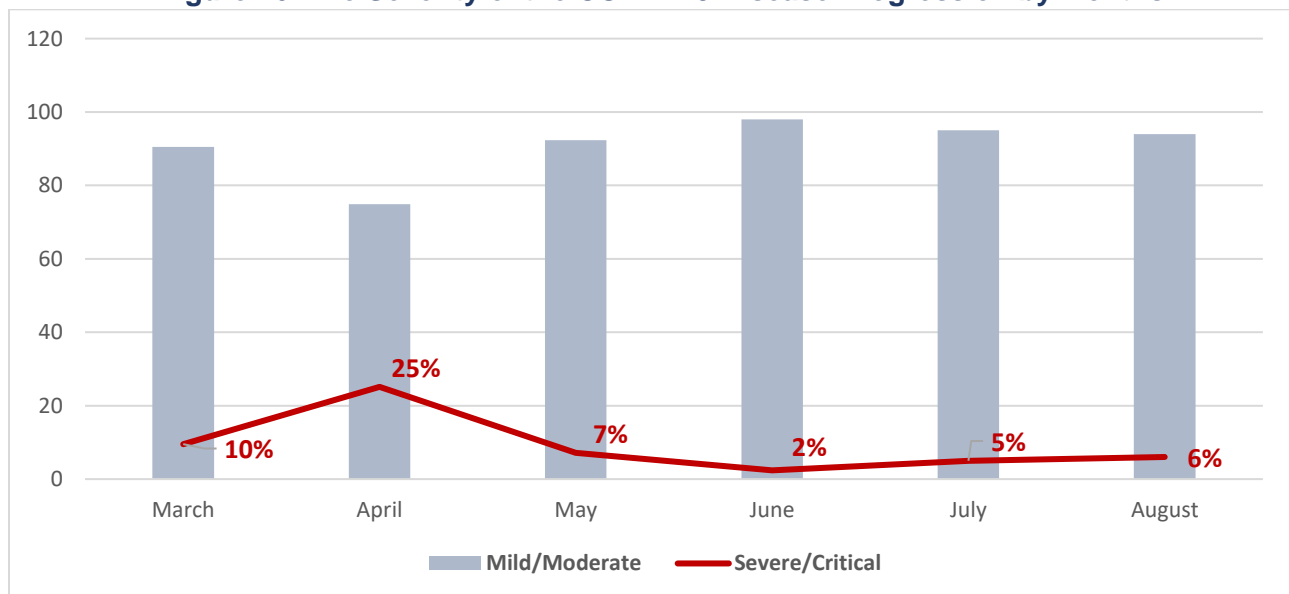
⁹ „Clinical management of infection (COVID-19) caused by novel coronavirus (SARS-CoV-2)”, State Standard for Clinical Situation Management (protocol), Decree 01-119/n

Figure 25. The Severity of the COVID-19 Progression in Patients with and without Underlying Health Conditions %



The severity of the disease also varied by months. In June 2020, the number of severe and critical cases decreased from 25% to 2% compared to April and increased slightly in the following months.

Figure 26. The Severity of the COVID-19 Disease Progression by Months



Bed-days

The average number of bed-days spent in a hospital by surveyed patients was 19.9.



The average number of bed-days spent by patients in hospital was higher in ones with underlying health conditions.

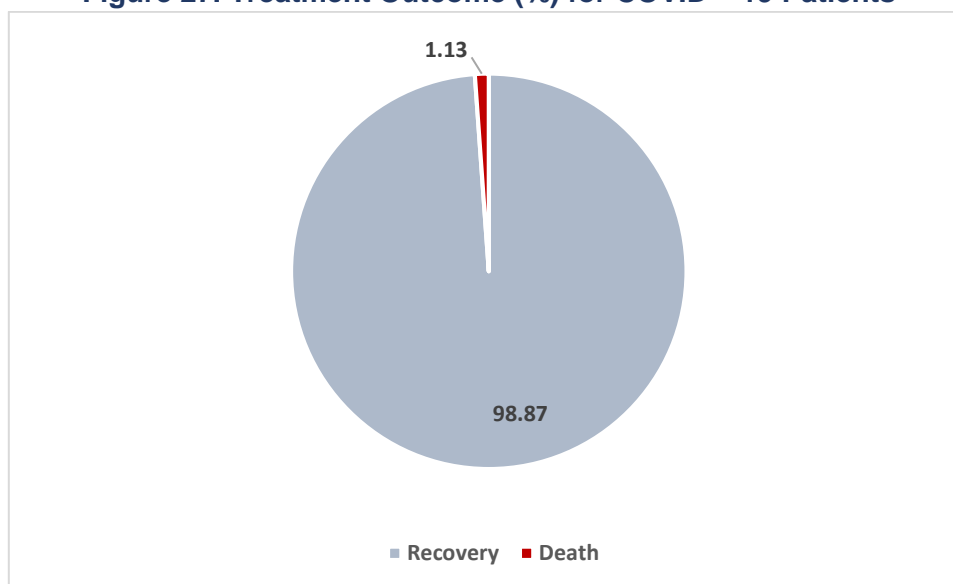
Table 7. Distribution of COVID-19 Patients Discharged from Hospital by Bed - Days

	Average length of stay
Comorbidity	
Yes	21.5
No	19.4
Severity of disease	
Mild	18.7
Moderate	21.4
Severe	22.0
Critical	23.5

Treatment outcome

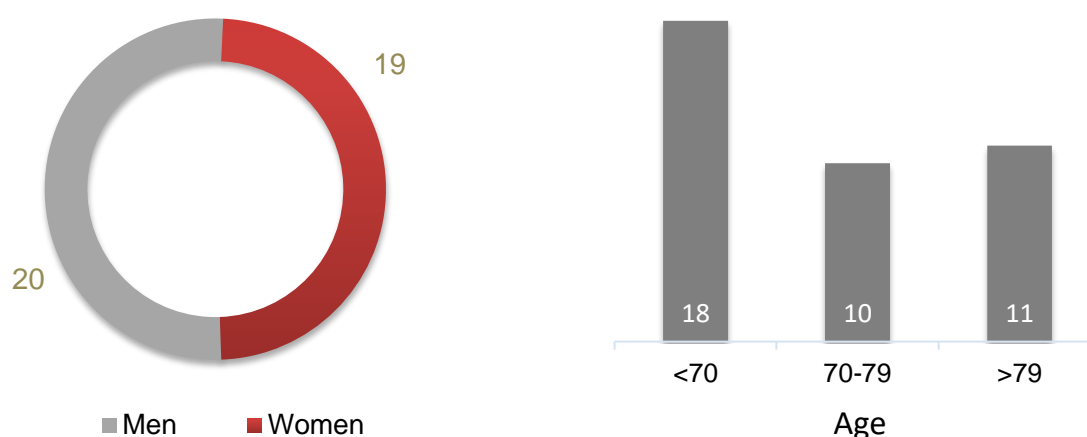
As of September 30, the share of recovered patients in the total number of infected cases equaled to 98.87% and 1.13 % of cases ended with fatal outcome.

Figure 27. Treatment Outcome (%) for COVID – 19 Patients



Patients (46.2%) over 70 years of age predominate in the age structure of the deceased, while in the age groups of 70 – 79 and over 79, distribution is almost equal, 20 males and 19 females.

Figure 28. Distribution of COVID-19 Caused Deaths by Sex and Age (n= 39)



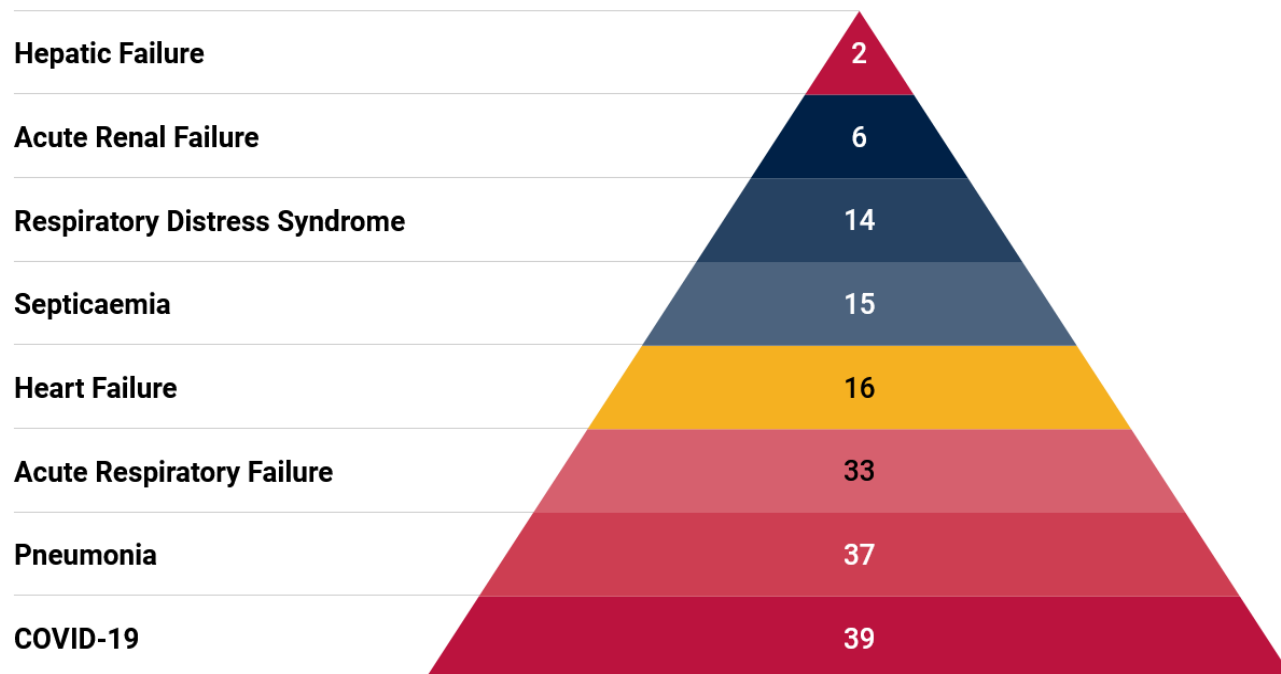
More than half of the deceased patients had a history of hospitalization due to comorbidities. All patients who died of COVID-19 during the hospitalization episode, had a variety of comorbid chronic diseases, 58.9% (95% CI 42.1% -74.4%) had cardiovascular disease, while 23% (95% CI 11.1%. 39.3%) diabetes and chronic lung diseases.

Table 8. Distribution of COVID-19 Caused Deaths by the presence of Underlying Health Conditions (n = 39)

	N	%	95% CI
Diseases of the cardiovascular system (except hypertension)	23	58.9	42.1%-74.4%
Hypertension	20	51.2	34.7%-67.5%
Diabetes	9	23.1	11.1%-39.3%
Chronic lung disease	9	23.1	11.1%-39.3%
Cancer	2	5.1	1.0%-17.3%
Dementia	2	5.1	1.0%-17.3%
Thyrotoxicosis	1	2.5	1.0%-13.4%
Immunodeficiency	1	2.5	1.0%-13.4%
Congenital Malformations	1	2.5	1.0%-13.4%

In all deceased patients, the degree of the disease was severe or critical. Mostly (94.8%, 95% CI 82.6% - 99.3%) the disease was complicated by pneumonia, 84.6% of the deceased had acute respiratory failure (95% CI 69.4% -94.1%), septicemia was observed in 38.4% of the fatal cases (95 % CI (23.3% -55.3%), and 35.8% developed ARDS (95% CI 24.2% -50.9%).

Figure 29. Distribution of COVID-19 Deaths by Major Disease Complication (n = 39)



COVID-19 Epidemiological Analysis of the Autonomous Republic of Adjara

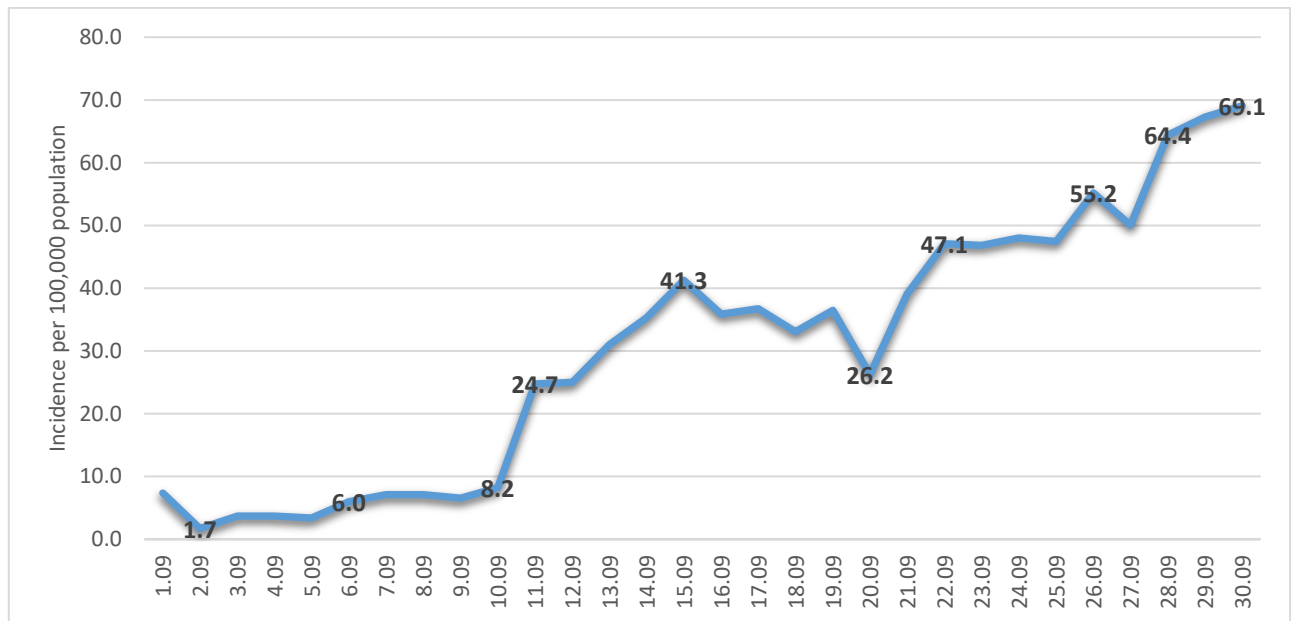
As a result of the stabilized epidemiological situation on the whole territory of Georgia, it became possible to fully restore mobility during the summer, resume domestic tourism from June, and receive foreign tourists from countries with a "safe corridor" from July. The risks were assessed and it was predicted that along with increased mobility, the number of new cases would increase, in some cases exponentially. Based on the risk assessment process, intensive training of the healthcare sector and strengthening of medical assistance started in the regions where tourism was particularly developed. Upon the end of the tourism season, epidemiological surveillance was intensified in the country, so that the rapid growth of cases and the formation of new epidemic spots would not occur at the expense of returnees. For emergency preparedness of the country's health sector, additional human resources have been trained during the summer for tracing contacts and providing quick response, in line with the plan designed for addressing possible new wave of COVID-19. Additional laboratory staff have also been trained to expand testing capacity.

In terms of epidemiological situation, the Autonomous Republic of Adjara is to be noted, where starting from the 36-37th calendar weeks of this year, 3,202 newly confirmed cases¹⁰ were identified, accounting for 65 – 70% of total cases reported in September. Growth in the number of new cases was due to the tourist season and increase in mobility, as well as to the celebration of a large number of traditional family holidays and ritual events and the formation of family / friend / employee clusters. Currently, the implementation of preventive measures is tightened in Adjara and intensive control is being exercised. Certain restrictions were introduced with respect to mobility and reducing gatherings (limited movement of intercity and intra-city transport, shortened working days for bars, restaurants and cafes, moving schools and universities to the remote teaching, suspension of kindergartens' operation, promotion of remote work). It is essential for the population to follow the preventive measures, for which risk communication is activated. Self-isolation of elderly population has been recommended, to avoid going out unnecessarily. The functionality of the hotline 112 has been expanded, switching to 144 line, working especially for the Adjara region.

Based on new cases data, the incidence rate in the region was increasing daily in September.

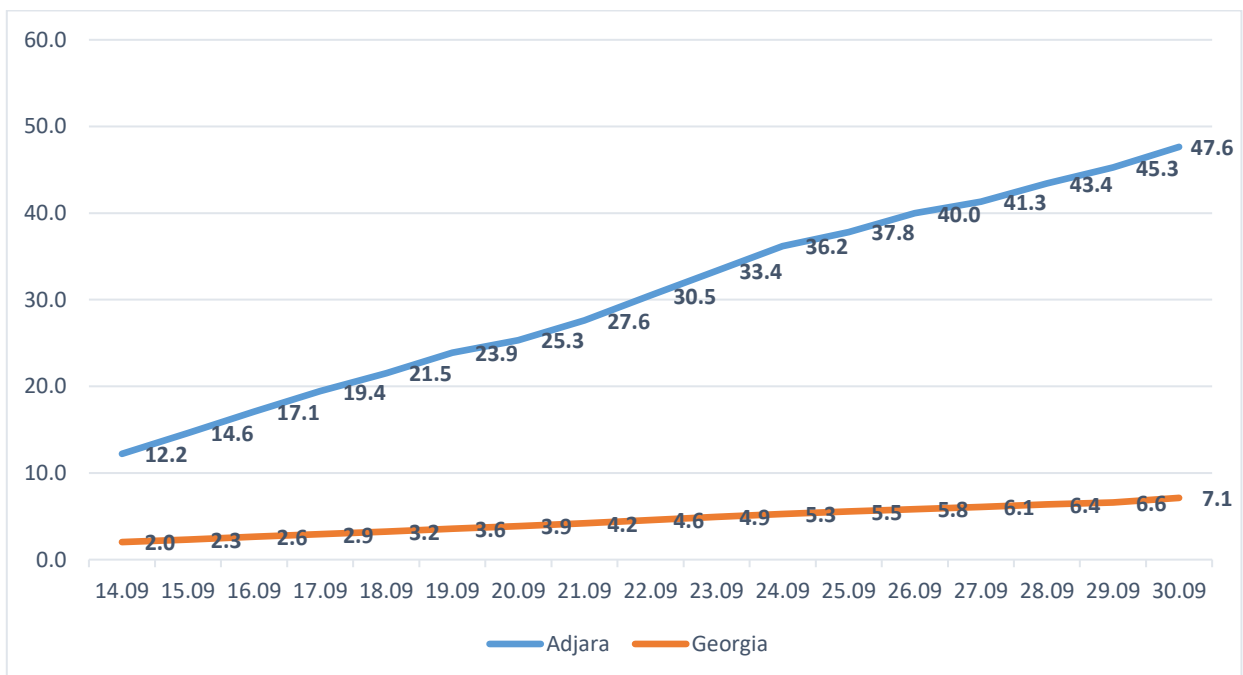
¹⁰ According to the Geostat data, population of the Autonomous Republic of Adjara equaled 351 900 people

Figure 30. Adjara, Daily Incidence, September 2020



Cumulative incidence has also been increasing. Other areas of Georgia have relatively lower number of new cases and incidence for the respective period.

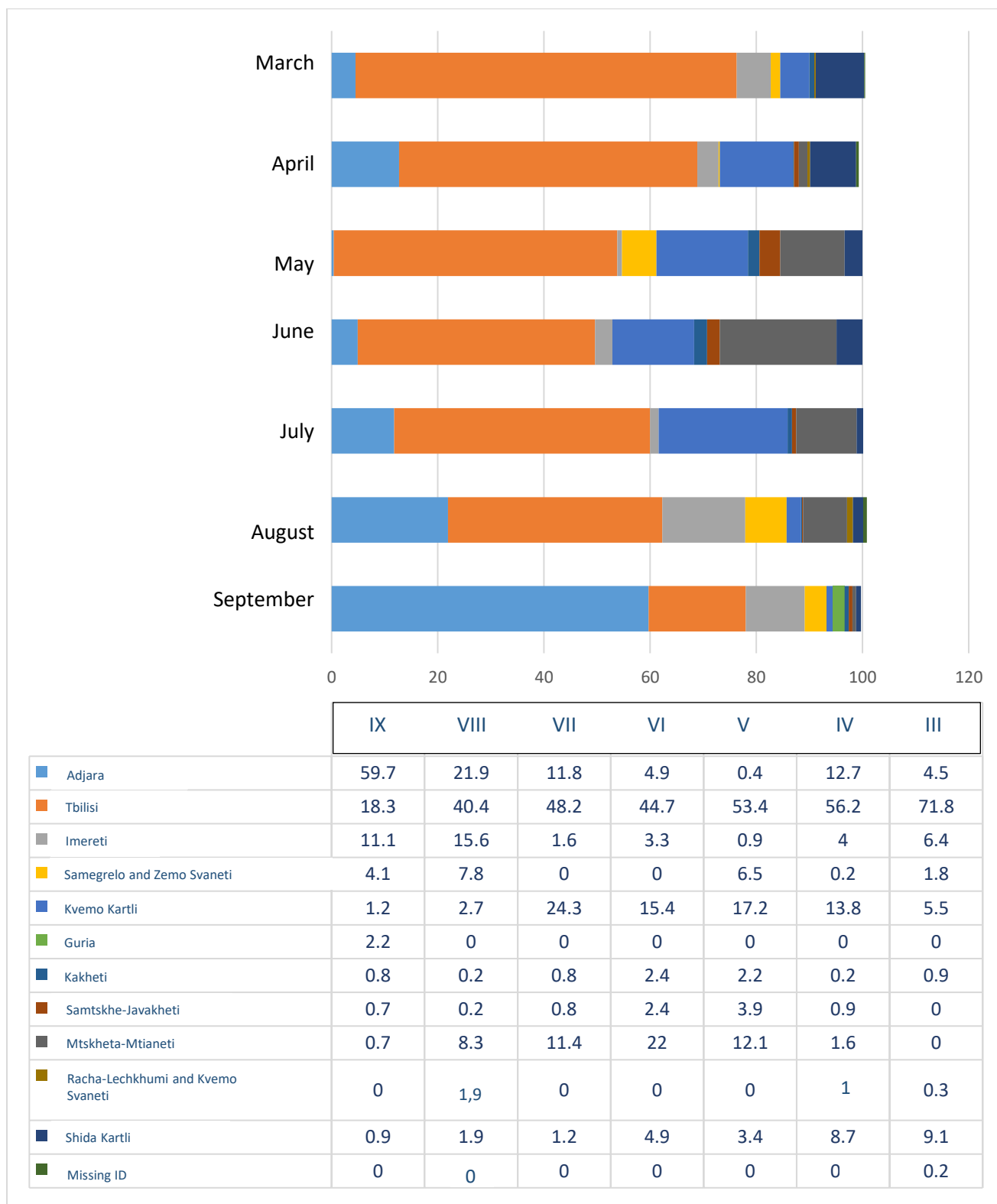
Figure 31. 14-Day Average of Cumulative Incidence in Adjara, September, 2020



Adjara occupies an important place in the share distribution of cases¹¹.

¹¹ Data are received from the single electronic laboratory portal LabCov, without identification of personal data. Validation of cases is confirmed by the NCDC. In the course of analysis, the officially registered place of residence of confirmed cases was taken into account

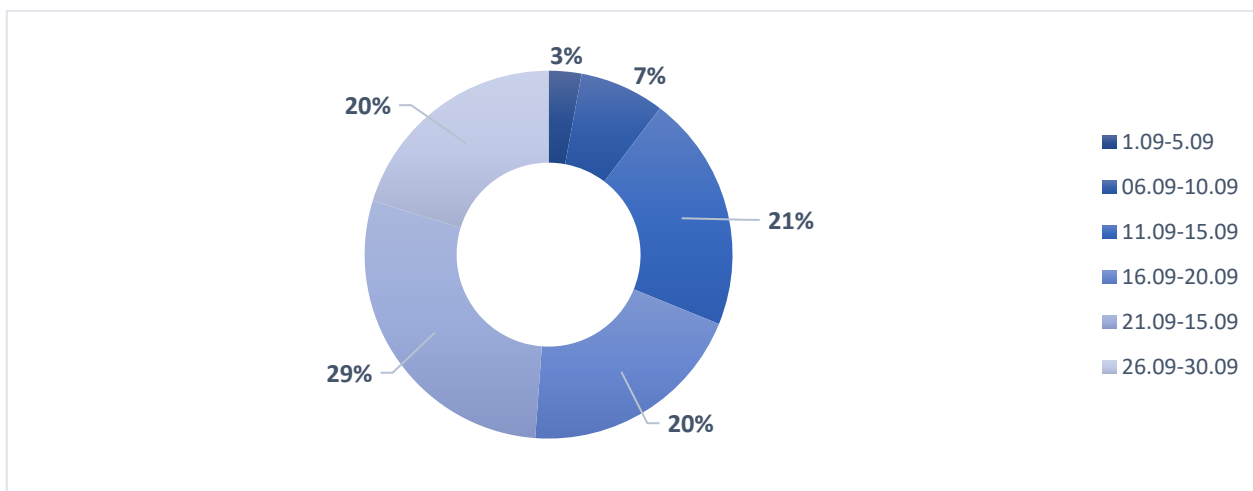
Figure 32. Monthly Dynamics of New Cases (%), Georgia, March-September 2020



According to the decision of the Coordination Board, in order to identify possible new cases with a history of traveling to the spot of outbreak, the general access to PCR testing for asymptomatic persons was expanded and various medical institutions of Georgia got involved in the program. A total of 18,293 samples

were taken. Additionally, in Adjara, at two locations in Batumi Boulevard, at one location in Kobuleti Boulevard and Shekvetili, safe, special spaces for testing were provided for anyone. The amount of research material taken was 22,345. Teachers with a history of traveling to the Black Sea in August and September were also tested. 1,658 teachers got tested¹². A total of 15,564 PCR tests were performed in the laboratories on the territory of Adjara Autonomous Republic.

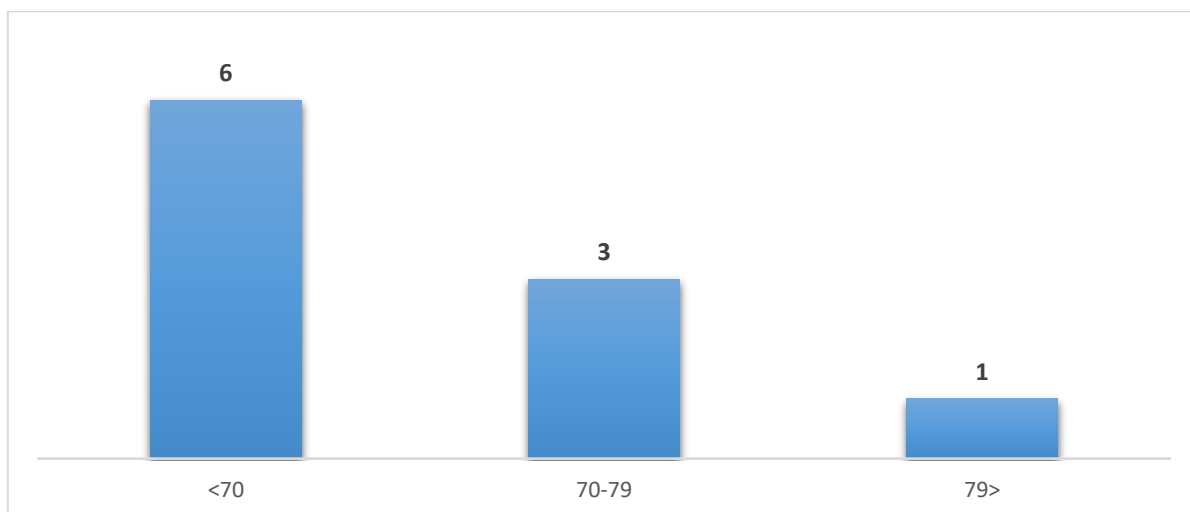
Figure 33. Dynamics of Confirmed Cases, 5-Day Intervals Adjara, September



In accordance with the obtained experience and international recommendations, in parallel with the increase of cases in the Adjara region, a confirmed case monitoring algorithm was launched. Decree N 01 - 493/ n of the Minister of Internally Displaced Persons from the Occupied Territories, Labor, Health and Social Affairs of Georgia on Approving the Algorithm for Medical Monitoring of Isolation Conditions for COVID-19 Mild Cases regulates monitoring of asymptomatic and mild cases at home and specially designated quarantine hotels.

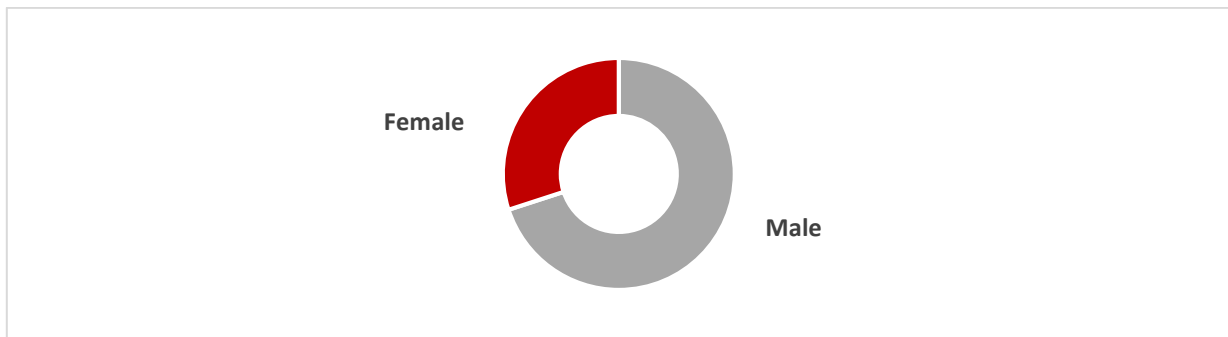
Deaths of 10 confirmed cases were registered in Adjara region during September.

Figure 34. Age Characteristics of the Deceased Patients in Adjara, September 2020

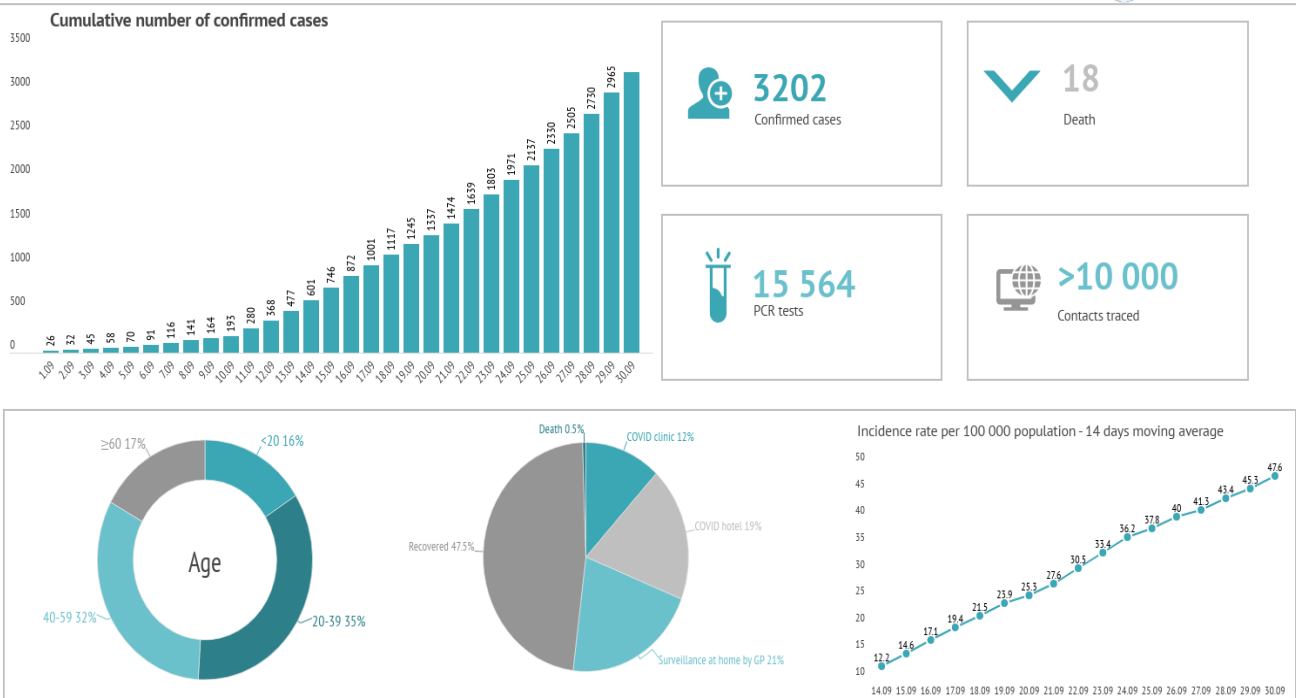


¹² Data are presented as of the sample taking date

Figure 35. Sex Characteristics of the Deceased in Adjara, September 2020



Adjara - Epid-situation 01-30.09.2020



COVID -19 Epidemiological Analysis in Mestia Municipality

As of September 30, 2020, 36 cases of COVID-19 were registered in Mestia Municipality, representing 1.62% of the cases detected nationwide, of which 26 were registered in Lenjeri community (village Lashtkhveri) and 10 in Mestia.

A notification about confirmed SARS-COV-2 was received at the Mestia Public Health Center on August 8. The cases were confirmed in Imereti Zonal Laboratory.

On August 9, 2020, epidemiologists from the Mestia Public Health Center and the Samegrelo-Zemo Svaneti Department identified 36 contact persons, 30 of whom were sampled on the spot in Lenjeri and Mestia, while six persons, who were in Tbilisi at the time, were tested in the Lugar Center. A total of 16 new cases were confirmed (11 in Zugdidi laboratory, 5 in Lugar center). As of August 9, a total of 17 cases of Lenjeri cluster had been confirmed.

On August 10, 2020, the rules on isolation and quarantine came into force in Mestia Municipality. 107 persons in Lenjeri community (village Lashtkhveri) and 123 persons in Mestia were isolated. 25 quarantine areas were arranged, in which 743 persons got transferred.

Due to the epidemiological situation, active surveillance and massive testing were planned to detect new cases in Mestia municipality. Specialists from the Public Health Centers of Samegrelo – Zemo Svaneti, Imereti, Poti, as well as experts of Imereti Division of NCDC were involved in this process. Sampling was carried out in various communities of Mestia Municipality. The testing revealed multiple contacts in densely populated area.

Mass testing was carried out in two stages. During August 9-16, 3,509 samples were taken in Lenjeri, where 28 new cases were confirmed. During August 21-31, 1,480 people were tested, including 389 from the Lenjeri community, 120 self-isolated persons from Mestia, 630 beneficiaries from the quarantine area, and 341 persons from the other high-risk groups. 8 new cases were revealed from Lenjeri community and self-isolated persons in Mestia.

A total of 4,989 persons were tested in the first and second stages in Mestia Municipality, of which 36 cases were identified. The detected cases of infection were related to two settlements: Lenjeri community (village Lashtkhveri) - 26 cases and Mestia - 10 cases.

Table 9. Confirmed Cases of COVID-19 according to Mestia Cluster

Period	N of Testing	N of Confirmed Cases
August 9-16	3 509	28
August 21-31	1 480	8
September 1-30	164	0
Total	4 989	36

Table 10. Distribution of Mestia Cluster Cases by Age Groups

	N	%
Sex		
<i>Female</i>	24	61
<i>Male</i>	13	39
Age groups		
<i>0-1</i>	1	2,8
<i>1-4</i>	3	8,3
<i>5-14</i>	6	16,7
<i>15-19</i>	3	8,3
<i>20-49</i>	10	27,8
<i>50-70</i>	9	25,0
<i>70+</i>	4	11,1

On August 13, a thermal imaging device was installed at Mestia Hospital for rapid response during PCRtesting. Overall, 52 PCR tests were performed, with one positive result (self-isolated).

In Mestia Municipality, 4,000 people were thermally screened by local medical staff and none of SARS-COV-2 cases were detected.

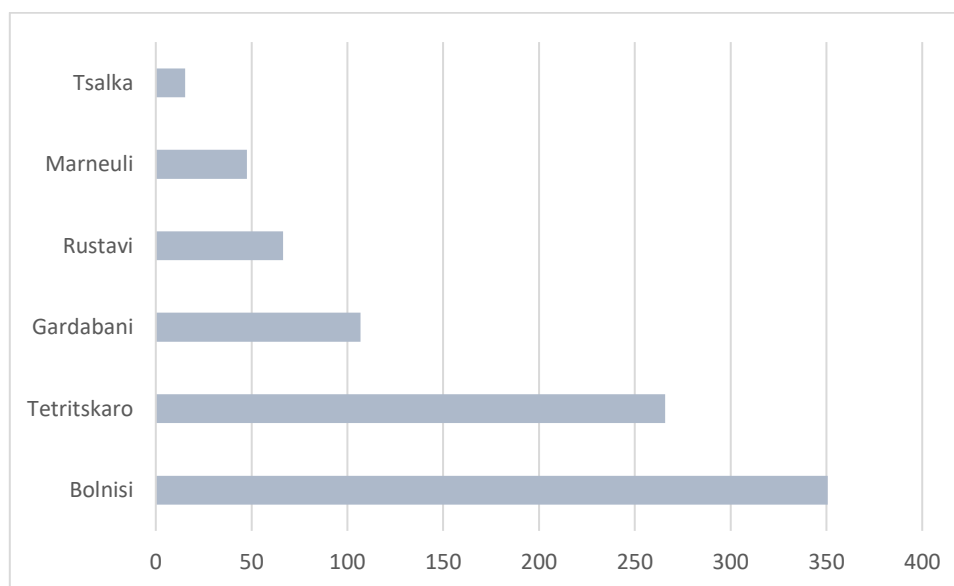
On August 21, on all territorial units of Mestia Municipality, except for Lenjeri and the town of Mestia, restrictions were lifted. In the remaining areas, given the epidemiological situation, quarantine restrictions were lifted on September 2.

In Mestia cluster, mild and moderate progression was noted in 78% (28/36) and 22% (8/36) of cases respectively. As of September 30, all patients were recovered.

Analysis of Epidemiological Situation in Kvemo Kartli

As of September 30, 476 cases of COVID-19 were registered in Kvemo Kartli region, which represented 8% of cases detected across the country. Specifically, 195 cases were identified in Bolnisi, 86 in Gardabani, 85 in Rustavi, 59 cases in Tetrtskaro, and 51 in Marneuli.

Figure 36. COVID-19 Incidence per 100,000 of Population, Kvemo Kartli



As of September 30, the situation on the territory of Kvemo Kkartli municipality was relatively stable.

Gardabani Municipality

The first cases of COVID infection were reported in the municipality on July 7, in the city of Gardabani. The disease was registered in 12 territorial units of the municipality, the village of Karajalari was isolated from July 24 to August 10.

As of September 30, 86 cases were reported, representing 18% of the cases detected in Kvemo Kartli (17 – in Gardabani, 4 – in Karatakia, 3 – in Aghtaklia, 47 - in Karajalari, 4 - in Birliki, 1 – in Akhalsheni, 2 – in Tazakendi, 1 – in Gamarjveba, 1 – in Martkopi, 2 – in Norio, 3 – in Akhalsopeli, 1 - in Teleti). No deaths were reported in the municipality.

Rustavi

As of September 30, 85 cases were registered in the city of Rustavi, representing 18% of the cases detected in Kvemo Kartli, 17 of which were not related to local transmission.

Cases have been reported in different districts of the city, no damage has been reported locally in any of the districts. However, 15 employees of a medical facility have been infected in one of the Rustavi clinics. 1 case of death was registered in the city.

Bolnisi Municipality

Since March 23, Bolnisi Municipality had been under a strict quarantine regime, which was lifted on May 23. Two villages (Mushevani and Geta) were left in isolation until July 2.

Cases were registered in 7 settlements of the municipality: in town of Bolnisi and villages: Kvemo Bolnisi, Savaneti, Mushevani, Geta, Rachisubani, Khatisopheli.

195 cases were reported in the municipality, representing 41% of cases identified in Kvemo Kartli region, of which 4 died and the rest got recovered.

Marneuli Municipality

Starting from March 23, Marneuli Municipality was under the strict quarantine regime, which was lifted on May 18. The first local case was reported on March 23.

Cases were registered in 8 territorial units of the municipality: in Marneuli and the villages of Mareti, Maradisi, Kirachmughanlo, Tazakendi, Saimerlo, Tsereteli and Shaumiani.

The number of confirmed cases equaled 51, representing 11 % of Kvemo Kartli cases. No death was reported on the municipality territory.

Tetritskaro Municipality

The first case in Tetritskaro municipality was registered on April 24, the last on May 21. The main part of the cases was recorded in the town of Tetritskaro and the following villages: Tsintskaro, Khaishi, Jorjiashvili, Marabda and Golteti. From April 26, strict quarantine regime was in force in Tetritskaro, which was lifted on June 4.

As of September 30, 59 cases of COVID infection were confirmed in Tetritskaro, representing 14% of the confirmed cases in Kvemo Kartli. 31 of them were employees of medical institutions, the rest - their family members and close contacts. All patients recovered, no deaths were reported.

Tsalka Municipality

The first case in Tsalka municipality was reported on September 25 (international shipping driver). Taking into account the epidemiological situation, strict epidemiological measures were carried out on the whole territory of Kvemo Kartli.

COVID-19 Seroprevalence Study

Seroprevalence study in Bolnisi and Telavi

Purpose of the survey - to study the presence of immune response (IgM / IgG) and antigen in the population selected on the territory of 2 municipalities of Georgia using rapid simple tests and identify the prevalence of COVID-19 in the country.

The survey was conducted on May 22-26, 2020.

Methods: The survey used: STANDARD™ Q COVID-19 Ag Test (manufacturer SD BIOSENSOR, (South Korea) and authorized representative MT Promedt Consulting GmbH (Germany); Corona virus rapid antibody test "Right Sign®" (manufacturer Hangzhou Biotest Biotech Co. (China) and Authorized Representative Shanghai International Holding Corp. GmbH (Europe) (Germany).

In case of obtaining positive result during the screening, standard PCR testing was additionally conducted for participants in the Lugar laboratory.

Two independent samples were identified for the survey: Bolnisi (Red Zone) and Telavi (Green Zone) municipalities. These municipalities are characterized with similar demographic parameters (number of population, sex and age composition and ratio of urban and rural population). The following criteria were used for the selection: official statistics on the prevalence of coronavirus in the Bolnisi region, 95% confidence interval, 5% error and population response levels (based on the results of previous serological studies). Considering these parameters and using the cluster method, the sample size was determined as 150 people in each municipality (15 clusters consisting of 10 people).

At the first stage, 15 starting points were selected in each region, the selection was made with a regular step = number of researched population / 15.

At the second stage, using the lists provided by the local government, the participants over the age of 18 were selected for the study on a random basis. The survey was conducted by the field squads of the National Center for Disease Control and Public Health, with 3 squads and one field coordinator operating simultaneously in each municipality.

Prior to commencement of field work, preparatory training was conducted to unify the testing techniques. In addition, the participants were repeatedly provided with the Biosafety Protection Methodology and the roles and responsibilities got distributed.

Survey Results:

Overall, 30 clusters were analyzed and 300 people tested.

26.7% (8/30) of the clusters included the urban population (3 and 5 clusters in the towns of Bolnisi and Telavi respectively) and 73.3% (22/30) covered the rural, community and small town population (12 clusters in Bolnisi municipality and 10 clusters in Telavi municipality).

The mean age of the participants was 48 years, the age range was 18 - 95 years, the median age was 48 years and moda 51 years (11 cases). 55.3% of participants (166 /300) were males and 44.7% (134 /300) females.

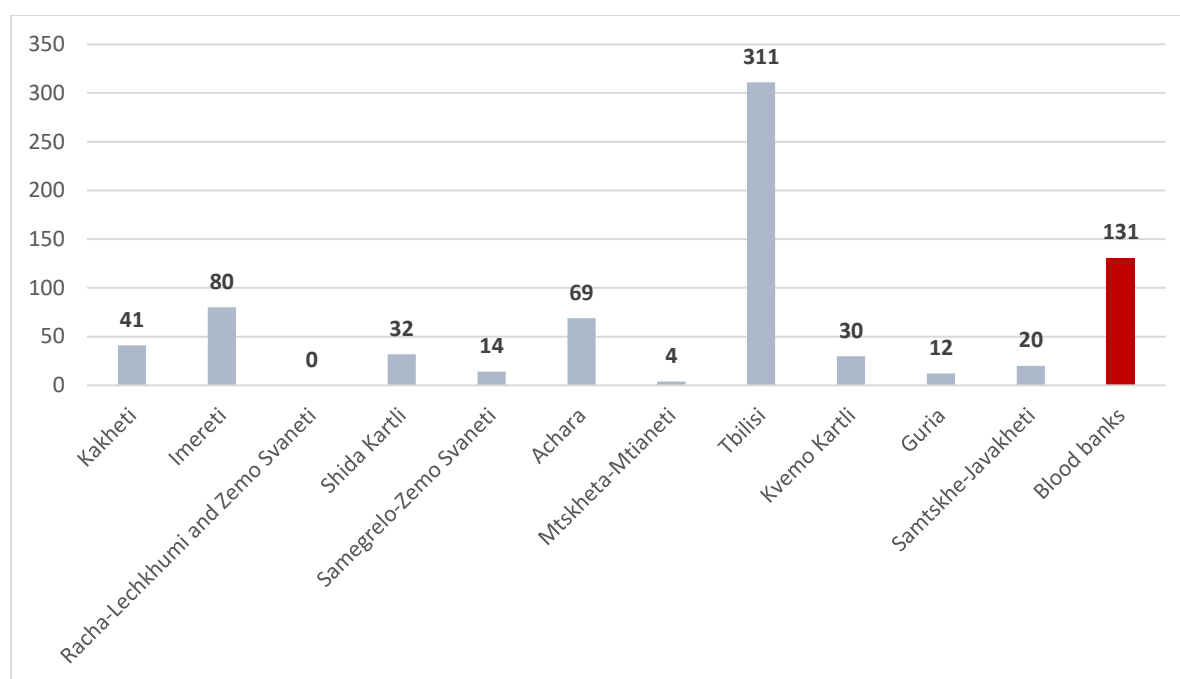
Seroprevalence Study at Hospital Facilities and Blood Banks

To determine the prevalence of COVID-19 across the country, a seroprevalence study was planned in August of this year for blood taken from patients and donors in hospitals, as well as in blood banks, according to a pre-determined sample size for each facility.

The protocol on taking, reporting, and transporting samples in institutions was submitted by the Lugar Center for Public Health Research, while the volume of samples to be selected and taken by facilities was determined by the Center's Department of Statistics.

Within the scope of the study, 744 blood samples were transported from blood banks and hospitals across the country. IgG antibodies against SARS-CoV-2 were identified on these samples; five samples tested positive.

Figure 37. Distribution of Samples taken from Blood Banks and Hospital Facilities



Seroprevalence Study in the premises of Tbilisi Justice Hall

In the light of the increase in the number of COVID-19 confirmed cases in Georgia and the aggravation of the epidemic situation, for determining the intensity of the virus circulation in Tbilisi, on September 18, 22, 23 and 24, Conduct a seroprevalence survey was planned in the premises of the Justice Hall within the scope of the Novel Coronavirus State Management Program. Voluntary PCR testing of the population and the staff of the Justice Hall was carried out as part of the planned study (target 1 000 study samples). Working groups of the laboratory "Cito" took 974 samples of nasopharyngeal smear, of which, 6 tested positive for SARS-CoV-2.

Sequencing and Phylogenetic Analysis of Novel Coronavirus SARS-COV-2 Circulating in Georgia

Within this study the whole genome sequencing of SARS-COV-2 circulating in Georgia was performed at the National Center for Disease Control and Public Health. The study utilized Next-Generation-Sequencing (NGS) based technology and bioinformatics. This is the first NGS related study of COVID-19 in the region.

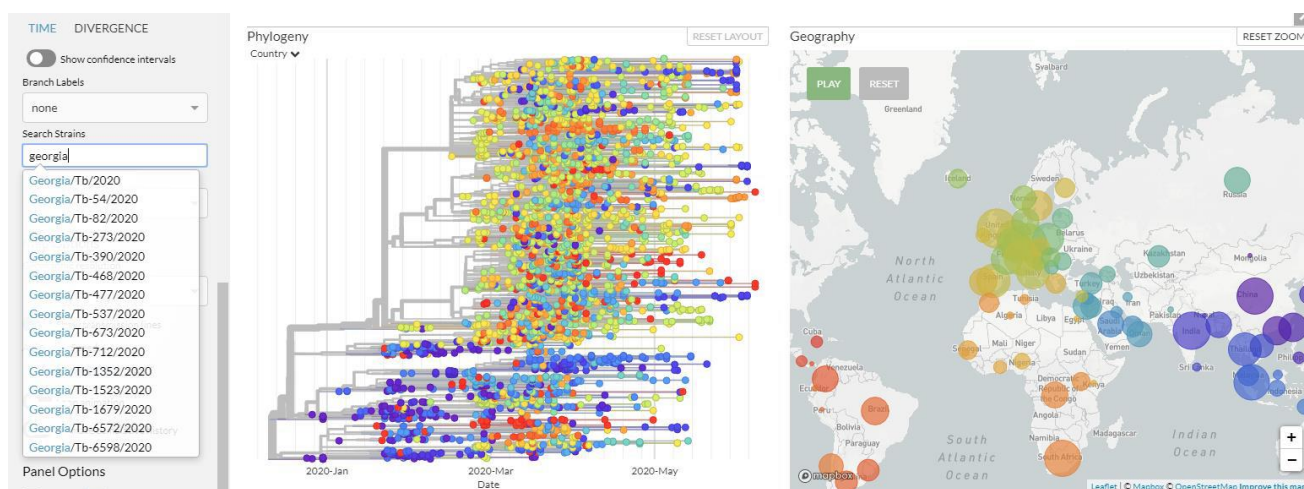
The overall objective of it is genetic characterization of the SARS-COV-2 virus, causative agent of severe, acute respiratory syndrome. The main goal is the whole genome sequencing and phylogenetic analysis of strains of SARS-COV-2 virus circulating in Georgia.

The study utilized clinical samples collected under surveillance of COVID-19 pandemic by the NCDC. PCR positive clinical specimens with high viral load were sequenced using NGS Illumina technology. The work was carried out at the Lugar Center for Public Health Research.

Short Review of the Results

Under this study 21 SARS-COV-2 whole genomes were sequenced, assembled and uploaded into the international database – GISAID. The viral genome data of the database allowed us to find the niche of the Georgian strains on worldwide phylogeny and track the detected cases.

Figure 38. Georgian SARS-COV-2 Strains Uploaded to GISAID Database Along with Worldwide Data



Based on these data phylogenetic analysis of the local strains was performed (Figure 2). As a result, SARS-COV-2 strains spread in Georgia were distributed in several groups according to the source of introduction of the infection, e.g. two of them were allocated in two different clusters with Spanish strains in accordance with their travel history; the cases and their contacts introduced from Italy were placed with the strains from this country; the part of the cases from local outbreaks were grouped with Iranian strains and part with cluster of Russian/French strains. The investigation in this direction continues at our center. Besides its scientific value the study provides great help to surveillance of COVID-19 in Georgia.

Figure 39. Phylogenetic Analysis and Comparison of Georgian and Worldwide SARS-COV-2 Strains



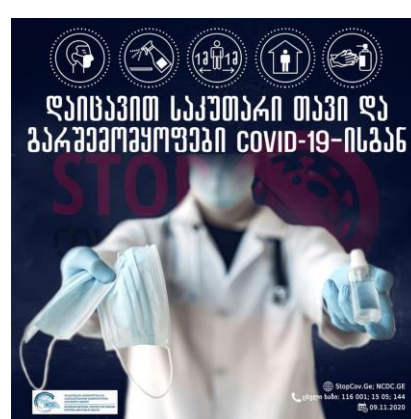
COVID-19 Communication Campaign and Hotline

Communication campaign about COVID-19 started in January 2020, before the first case of the disease was detected in the country. The social media campaign has intensified. The National Center for Disease Control and Public Health, in collaboration with donor organizations, has prepared informational electronic banners, which have been posted on various websites and video portals. Video lectures were prepared for medical staff. Information and educational materials were created, including for ethnic minorities living in Georgia. So far CDC, WHO and other international evidence-based educational materials have been translated and adapted, visual materials, educational posters, infographics and videos have been prepared and distributed on social networks. Ongoing information is being provided to the media and the public. The social campaign has been launched on Twitter and Instagram.

Briefings for the media and the public were held on a daily basis. The official Facebook page of the Center still holds live briefings. In collaboration with donor organizations, several video clips were prepared:

- COVID-19 Transmission and symptoms (March, 2020)
https://www.youtube.com/watch?v=O8N8HSCLK2Y&feature=emb_logo
- Public responsibility /Observance of preventive measures (March, 2020):
https://www.youtube.com/watch?v=vTvs0ypQWxw&feature=emb_logo
- Rules for using public transport / Preventive measures against COVID-19 (March, 2020):
https://www.youtube.com/watch?v=Llbf4rR6LM&feature=emb_logo
- 7 Steps to avoid infection (April, 2020):
https://www.youtube.com/watch?v=ApmeYGjlp1U&feature=emb_logo
- Recommendations for media organizations and journalists (April, 2020):
https://www.youtube.com/watch?time_continue=14&v=1z9E8XkBKxU&feature=emb_logo
- Rules for using medical and non-medical (social) masks (June, 2020)
https://www.youtube.com/watch?v=6iJUZg52Yyg&feature=emb_logo

With the joint efforts of the United Nations Children's Fund, the World Health Organization and the Ministry of Internally Displaced Persons from the Occupied Territories, Labor, Health and Social Affairs of Georgia, a 2020-2020 Strategy Paper and Action Plan on Risk Communication and Community Involvement related to COVID-19 was prepared. A COVID-19-related communication plan was developed for ethnic minority regions, which, among other important measures, provides for the effective delivery of communication messages through media advocacy, online meetings and webinars to various target groups.



Hotline of the National Center for Disease Control and Public Health 116 001

Receiving calls to the hotline of the National Center for Disease Control and Public Health with respect to COVID-19 issues began on January 23, 2020. In order to respond appropriately, a total of 43 people were gradually trained to perform the function of an operator on the hotline, including:

- Employees hired under the labor contract for the Center hotline - 3;
- Employees of the Medical Statistics Department of the Center - 11;
- Employees of the Non-Communicable Diseases Department of the Center - 14;
- Employees hired under labor contract within the scope of Hepatitis C State Program - 6;
- Volunteer students (Tbilisi State Medical University) - 9.

Management of incoming calls accepted at the hotline has significantly contributed to stopping purposeless referrals of patients to medical facilities. At the initial stage of the pandemic, in conditions of informational deficiency and panic, the bulk of the population's calls was being directed exactly to 116 001.

It should be noted that the public confidence in the Center hotline during this period was quite high, to which also contributed the launch of so-called feedback principle – implying reverse communication to callers and provision of further detailed responses to asked questions regarding numerous issues.

As of September 30, 2020, 28 people were performing operator functions at the hotline, including:

- Employee hired under the labor contract on the hotline of the center - 3;
- Employee hired under a labor contract within the scope of Hepatitis C State Program - 3;
- Volunteer student (Tbilisi State Medical University) - 2.
- Employee of the Medical Statistics Department of NCDC – 11
- Employee of the Non-communicable Disease Department of NCDC – 9.

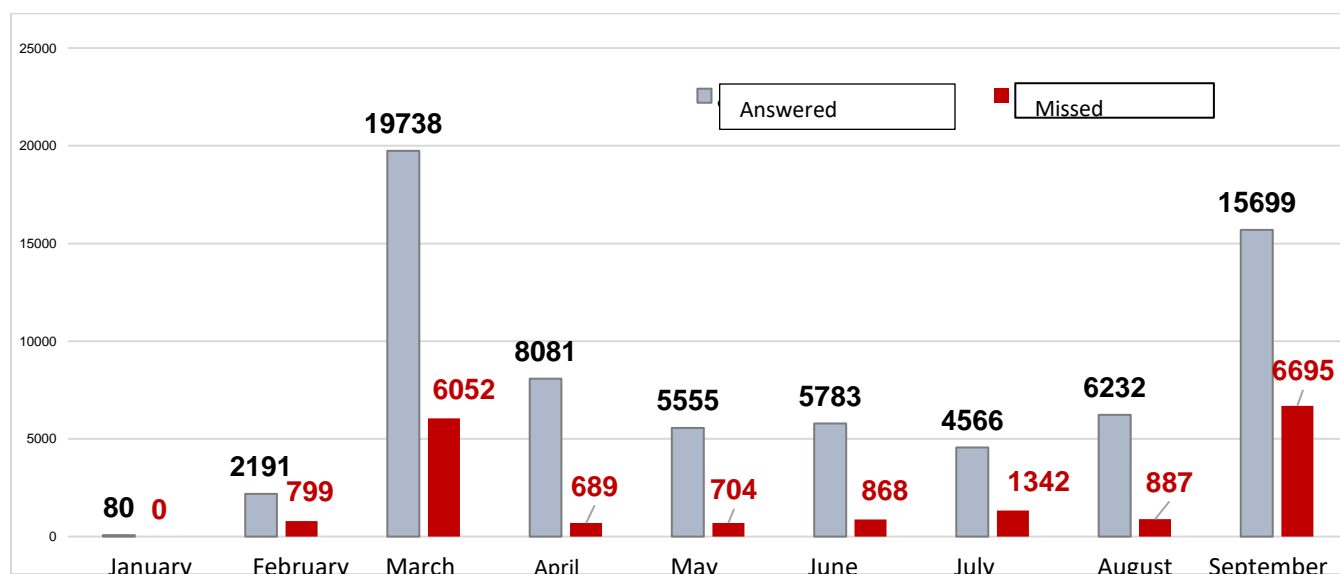
The total number of calls received by the hotline from January 23 through September 30, 2020, was 85,961, including:

- answered: 67,925 (79 %)
- missed: 18,036 calls (21 %).

Hotline work hours:

- Working days: 09:00 - 23:00
- Non-working days: 10:00 - 20:00

Figure 40. Total N of Incoming calls (23.01-30.09.2020)



International Partnership

During the COVID-19 pandemic period, the National Center for Disease Control and Public Health actively communicated with the public and various target groups, as well as with international partners. Collaborating with international partners has played an important role in strengthening the Centre's capacity to fight COVID-19 infection, both technically and financially. This cooperation aims to obtain the most transparent, timely information from the Center's key strategic partners, as well as to share recommendations based on the best practices to the target audience. Intensive meetings with diplomatic corps and foreign officials have taken place during this period

On August 26, 2020, Mr. **Ulrik** Tideström, the Ambassador Extraordinary and Plenipotentiary of the Kingdom of Sweden to Georgia, paid a visit to the NCDC. During the visit, the Director General of the Center presented information on the main strategic directions and activities of the NCDC, discussed the results achieved with the support of the international partners and future plans. For his part, Mr. Tideström underscored Georgia's successful response to the COVID-19 pandemic and expressed his readiness to facilitate the expansion and deepening of cooperation with Swedish public health institutions.

BMJ Leader published an interview with the Director General of the NCDC about his role as a leader in the fight against the COVID-19 pandemic in Georgia. The National Geographic magazine also published an article entitled "What the pandemic has taught us."¹³

European Journal of Public Health (5-year average impact factor 3.134) published an abstract on the characteristics of patients recovering from COVID-19 in Georgia "Characteristics of discharged patients from hospitals - Georgian descriptive study"¹⁴.

For effective epidemiological surveillance and management of COVID-19, a series of short-term trainings on "COVID-19 Epidemiological Surveillance, Prevention and Management" were conducted on September 20-29 with the involvement of the NCDC and support of the US CDC. The target audience of the trainings was represented by epidemiologists of the municipal healthcare centers of Eastern Georgia and Imereti region; epidemiologists of Tbilisi Healthcare and Social Services Division. During August-September, the Center's epidemiologists, with the financial support of the CDC, conducted micro-surveys (including mass testing at markets) in the most COVID-19 affected areas (municipalities) throughout Georgia.

¹³ <https://nationalgeographic.ge/story/ra-qvaswavla-pandemiam-amiran-gamyrelidze/>

¹⁴ https://academic.oup.com/eurpub/article/30/Supplement_5/ckaa165.352/5915874?searchresult=1

Data sources

The main source of information on COVID-19 infected people is represented by the Electronic Integrated Disease Surveillance System (EIDSS), which aims to strengthen and support monitoring and prevention of human and animal diseases within the scope of the One Health Concept and ensure application of international health regulations (IHR) 2005. Disease-specific information, samples, case-related laboratory data and total figures are managed through EIDSS. Pursuant to the Order # 01-26N, dated March 2019, the EIDSS is an official reporting system for public health facilities and agencies under the Ministry of Health. It is possible to adapt its configuration to the needs of the country according to the changed requirements, such as the list of diseases, official reports, disease-specific study forms, and beyond.

Data were also validated through special protocols completed during the epidemiological investigations.

The main sources of information on hospitalized patients diagnosed with COVID - 19 were:

- Electronic module for registration of patients discharged from inpatient facility (Form IV - 066)
- (Order of the Minister of Internally Displaced Persons from the Occupied Territories, Labor, Health and Social Affairs of Georgia N01 - 43 / N of April 16, 2020);
- A special questionnaire filled out for each patient discharged from inpatient medical facility.
- Birth – death database.

Covid-19 in Georgia

Total confirmed cases



8696



Among confirmed cases



578

New case



3999

Active case*



4619(53%)

Recovered



52

Death



679 169

Number of tests



182 725

PCR tests per million population



1.3%

Positivity rate for PCR testing



41

Georgian citizens brought from abroad for medical treatment



5 392

In quarantine

*confirmed cases, which are receiving treatment now

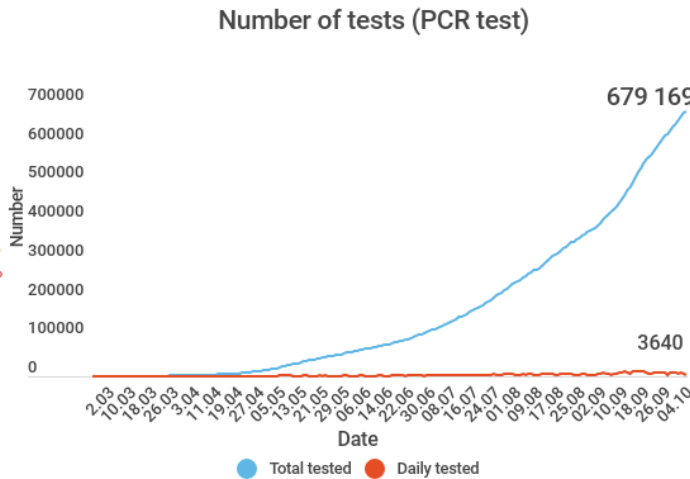
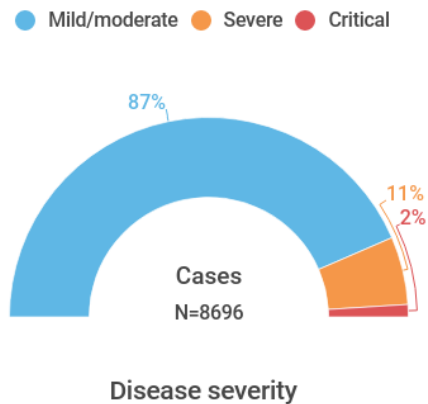
05.10.2020 09:00

COVID-19 05.10.2020

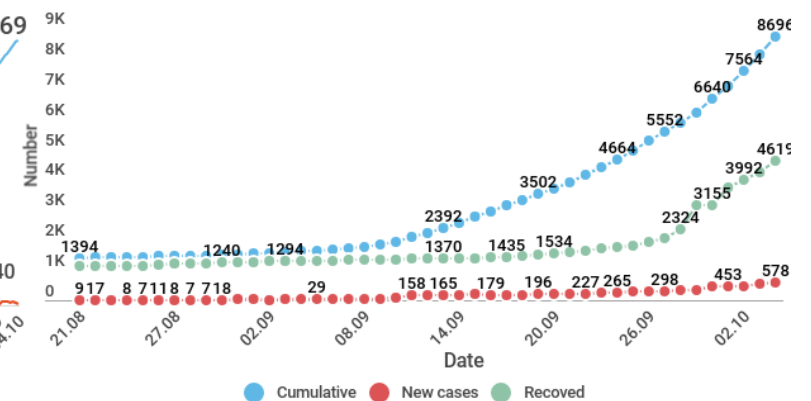


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CONTROL AND PUBLIC HEALTH

Total confirmed	Active cases*	Recovered	Death	Primarily tested (PCR test)
	3999	4619	52	
8696			52	679 169

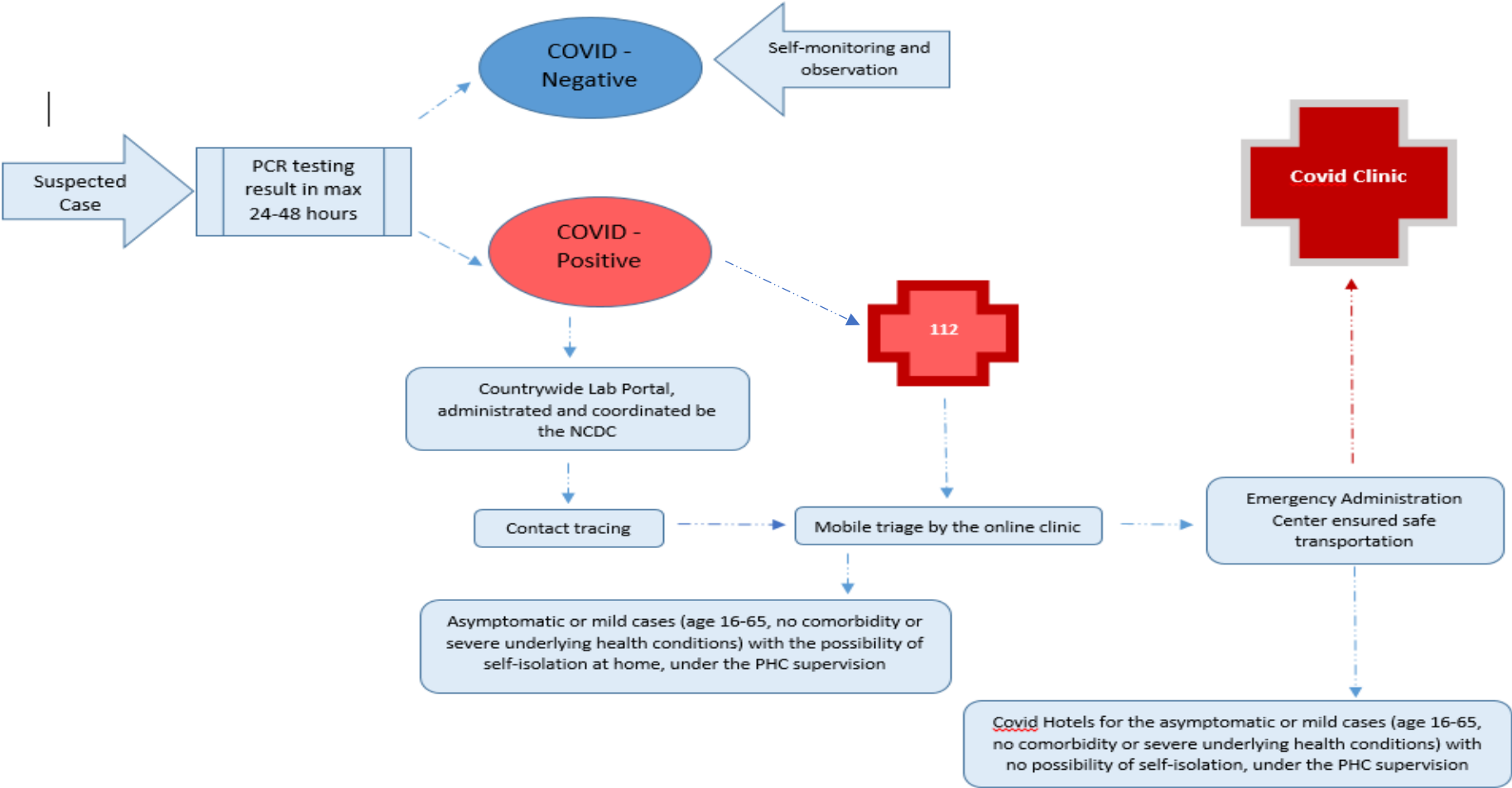


Cumulative, daily cases and total number of recoveries

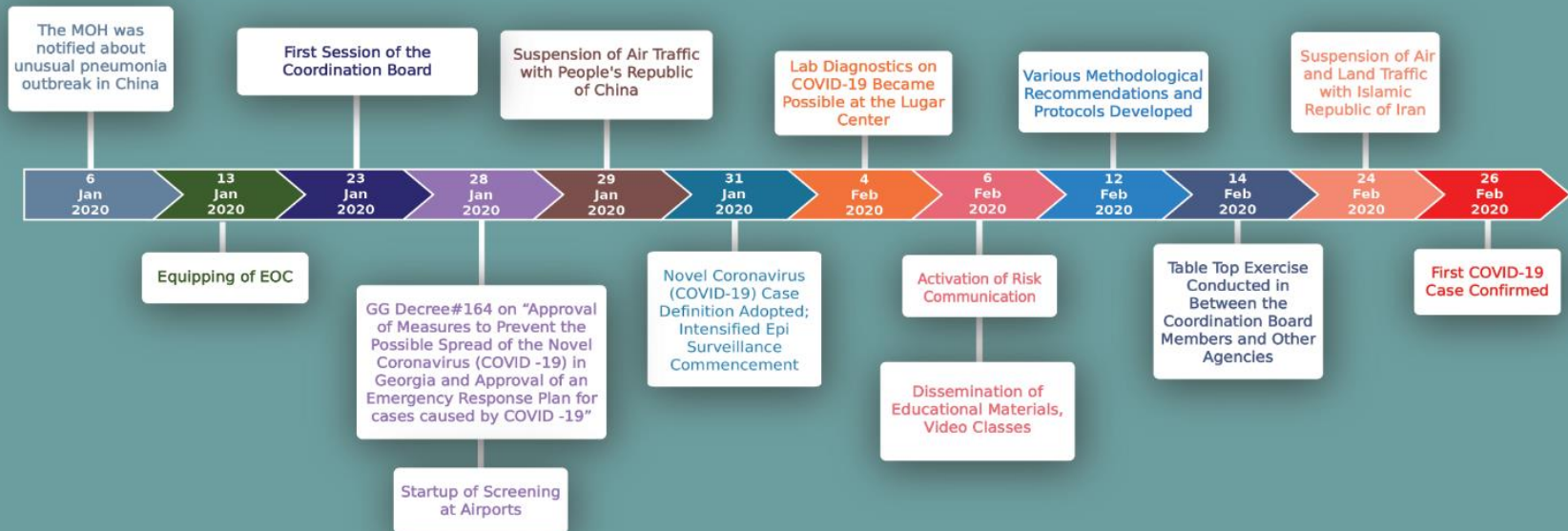


*confirmed cases, which are receiving treatment now

Annex 2



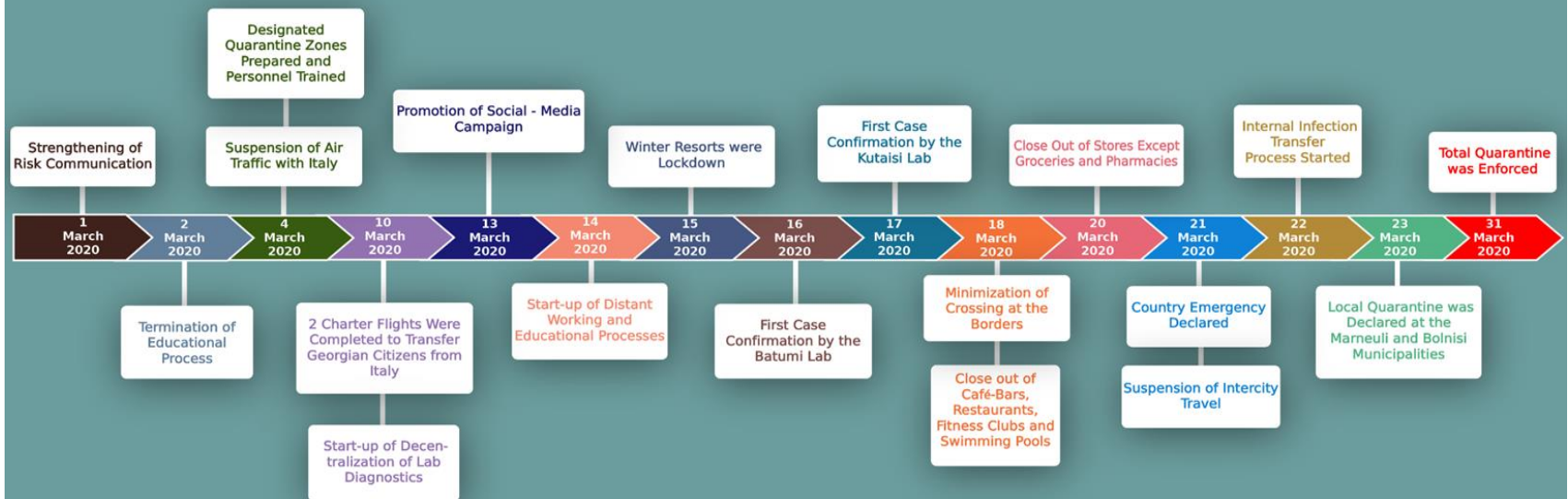
Actions Taken in Georgia in terms of Novel Coronavirus (COVID-19) Prior to the First Confirmed Case



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პროტექციის ცენტრი

GEORGIAN NATIONAL CENTER FOR DISEASE
CONTROL AND PUBLIC HEALTH

Actions Taken in Georgia after the First Confirmed Case in Terms of Combatting COVID-19



#Stayhome

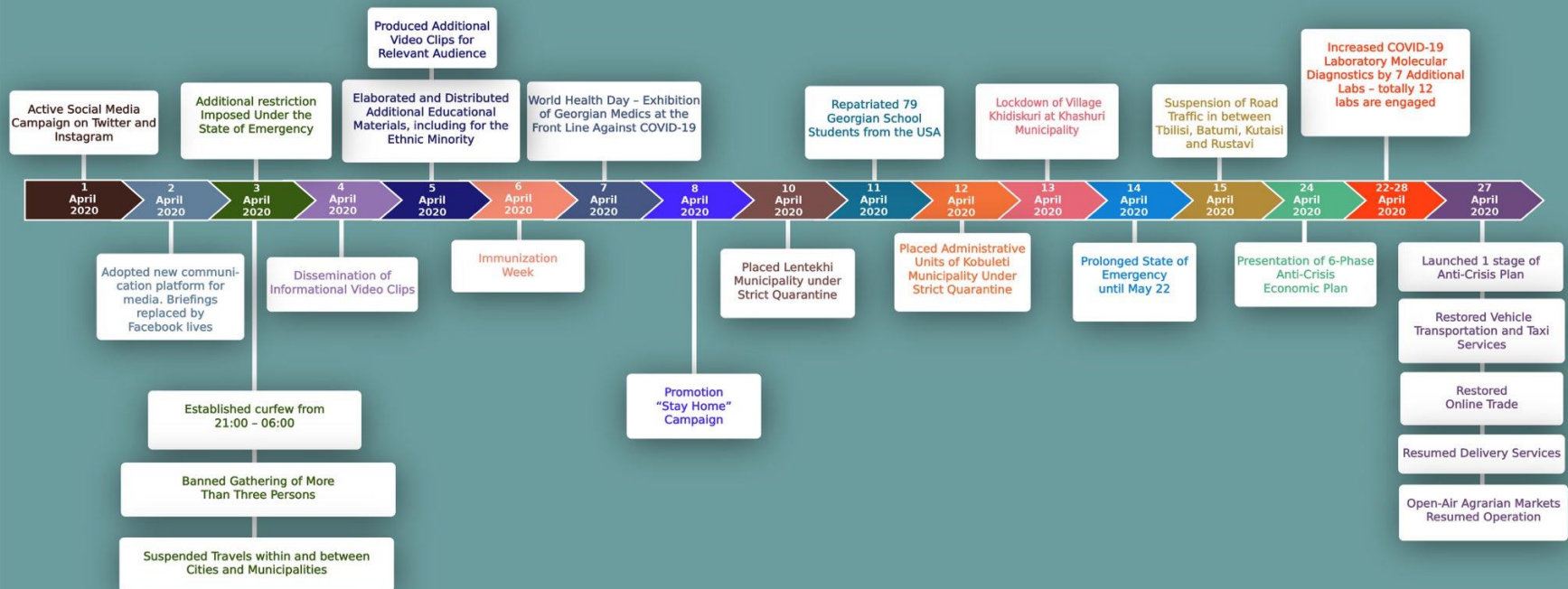


დაავადებათა კონტროლისა და
საზოგადოებრივი ჯანმრთელობის
ეროვნული ცენტრი

GEORGIAN NATIONAL CENTER FOR DISEASE
CONTROL AND PUBLIC HEALTH

Actions Taken in Georgia in Terms of Fighting the Novel Coronavirus Infection COVID-19 After the Confirmation of the First Case

April 2020



#Stayhome

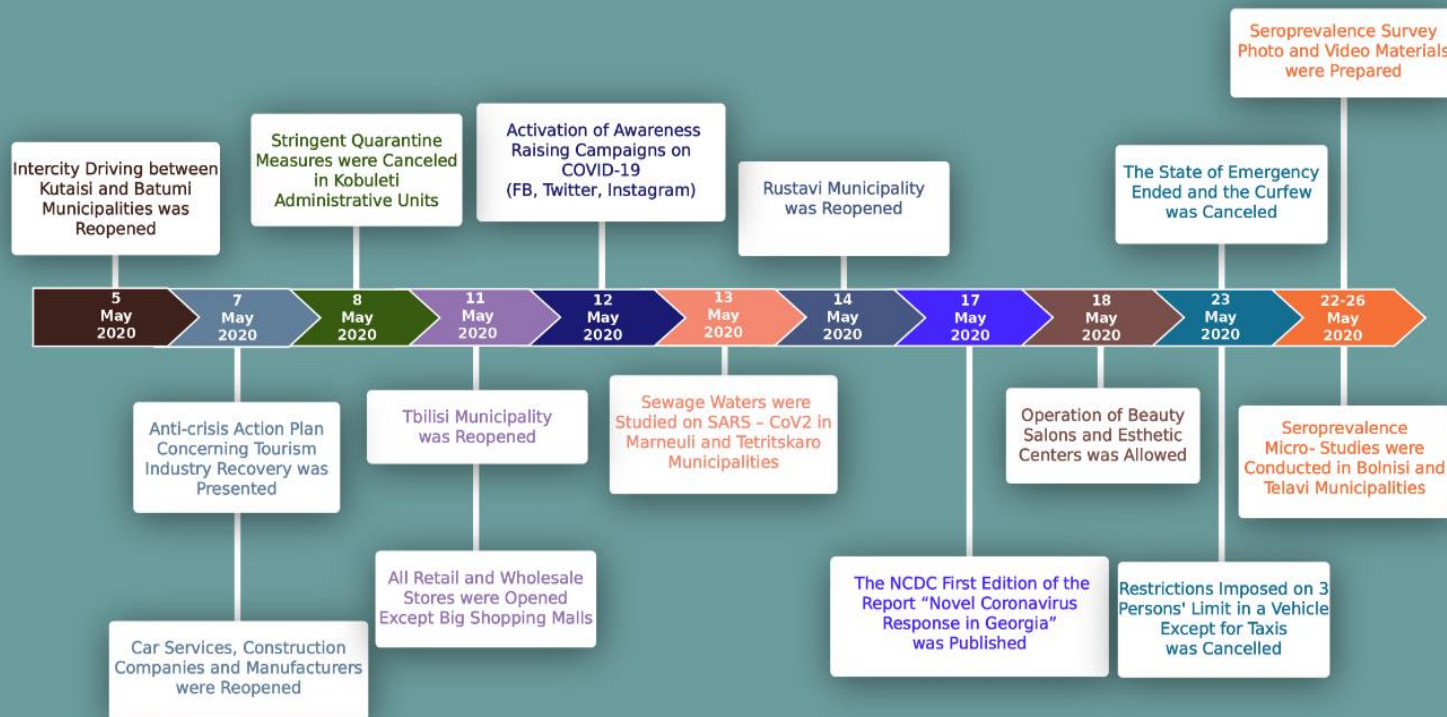
During this period, the Government of Georgia has been continuing repatriation of Georgian Citizens from abroad and enhanced monitoring and prevention of spread of COVID-19 are being implemented in compliance with the established procedures.



განსაკუთრებული ყურადღება ეთმობა საზოგადოებაში ინფორმაციის გავრცელებას.
GEORGIAN NATIONAL CENTER FOR DISEASE CONTROL AND PUBLIC HEALTH

Relaxing Measures after the Lockdown in Georgia in terms of COVID-19

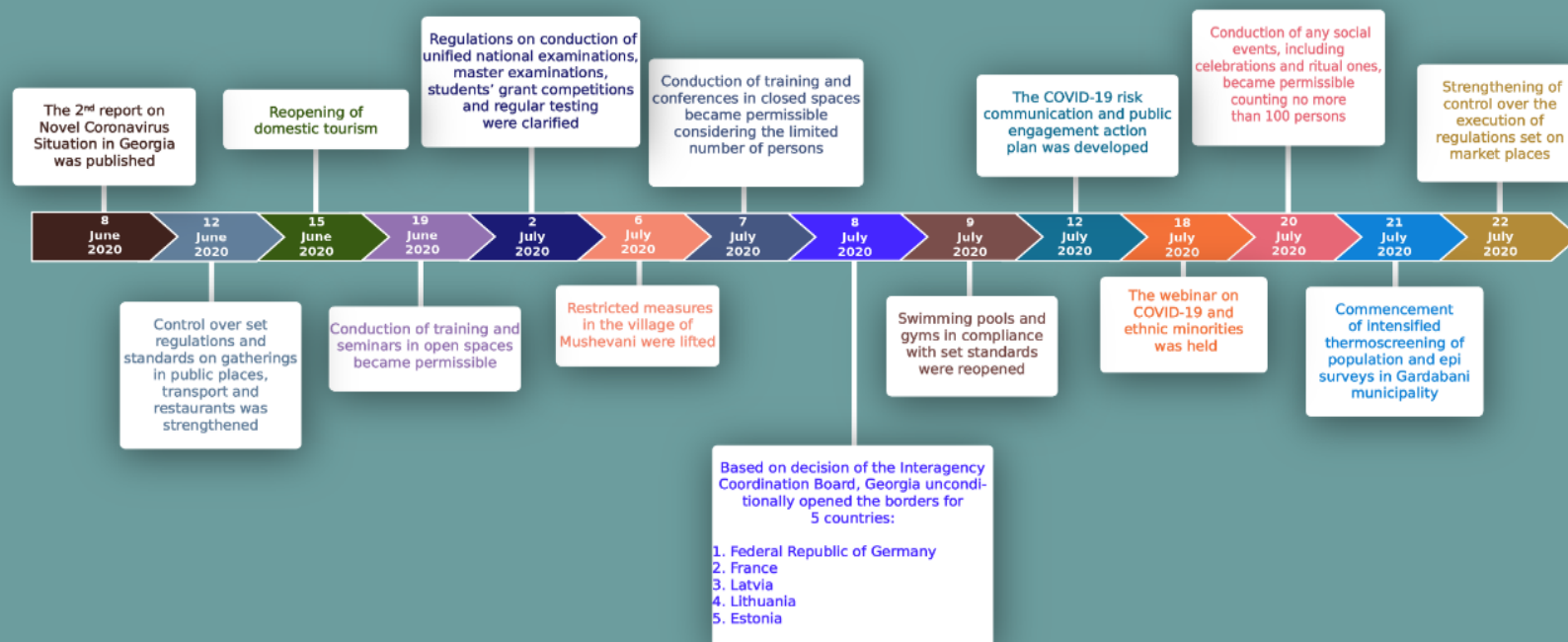
May, 2020



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Actions Taken in Georgia in Terms of Fighting the Novel Coronavirus Infection COVID-19 After the First Confirmed Case

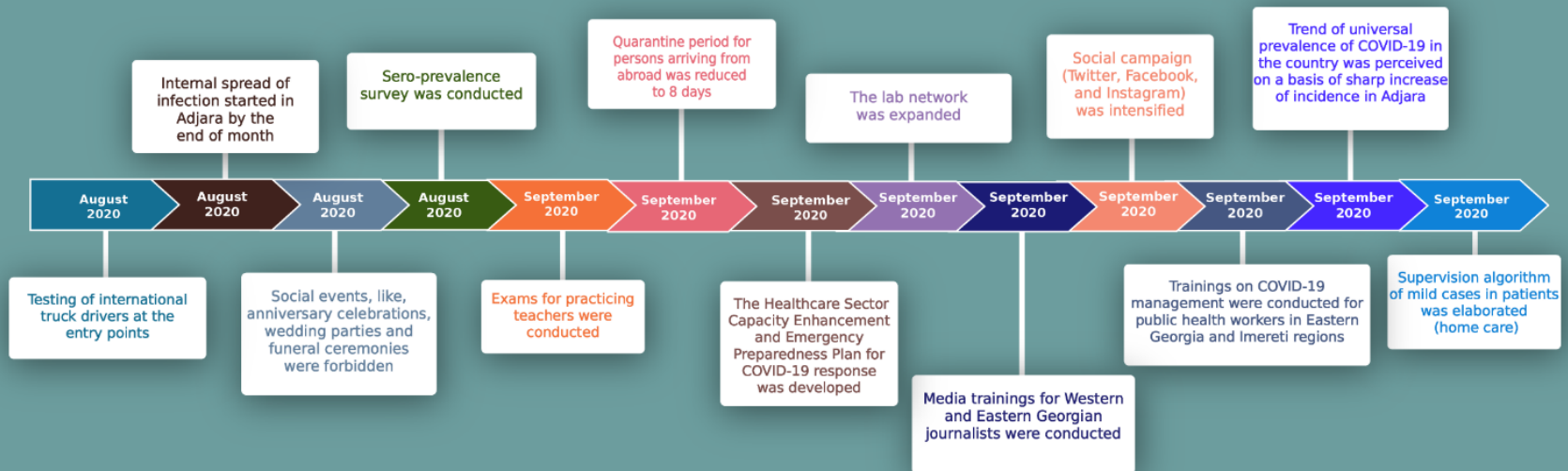
June-July 2020



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Actions Taken in Georgia in Terms of Fighting the Novel Coronavirus Infection COVID-19 After the First Confirmed Case

August-September 2020



დაავადებათა კონტროლისა და
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GEORGIAN NATIONAL CENTER FOR DISEASE
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