# 1. COVID - 19 PANDEMIC AND PRIMITIVE KURUMBA TRIBES IN NILGIRIS DISTRICT OF TAMIL NADU - A THEORIETICAL PERSPECTIVES

**Dr.G.YOGANANDHAM,** Associate Professor & Head, Department of Economics, Thiruvalluvar University, (A State University), Serkkadu, Vellore District, Tamil Nadu – 632 115.

**Mr.A.GOVINDARAJ,** Ph.D., Research Scholar, Department of Economics, Arignar Anna Government Arts College, Villupuram, Tamil Nadu.

#### **ABSTRACT**

The tribal community is the most economically backward vulnerable population in the country. Their backwardness is in addition difficult by their deprived health indicators and status. Health is an significant factor in social development. It seems that the fruits and benefits of progress have not reached to this section of the society properly. The health situation of tribal community is in a state of a immense crucial and wretched state of affairs in spite of the government's vast efforts and apprehension for this immature section of the society. The present paper mainly concentrate on the COVID - 19 Pandemic and its impact on Kurumba tribal community in Nilgiris district. A systematic review is done to understand the impact of COVID - 19 on health of Kurumba tribal communities in Nilgiris large. It is exposed from the review of literature that tribe and their health status is very depressed and require a systematic policy intervention to revitalize and cure the health condition of the respondent in the study area.

**KEYWORDS:** Tribal Community, Vulnerable Population, COVID – 19 Pandemic, Impact of COVID – 19, Health Situation, and Acute Respiratory Syndrome.

## **INTRODUCTION**

The tribal community is the most economically backward and vulnerable population in the country. It is revealed from the review of literature that tribe and their health status is very miserable and need a systematic policy intervention to revive and cure the health condition of the most vulnerable population.

Theirbackwardnessisinadditiondifficult by their deprived health indicators and status. Health is an significant factor in social development. It seems that the fruits and benefits of progress have not reached to this section of the society properly. The health situation of tribal community is in a state of a immense crucial and wretched state of affairs in spite of the government's vast efforts and apprehension for this immature section of the society. The present paper mainly concentrate on the COVID - 19 Pandemic and its impact on Kurumba tribal community in Nilgiris district. A systematic review is done to understand the impact of COVID - 19 on health of Kurumba tribal communities in Nilgiris large. It is exposed from the review of literature that tribe and their health status is very depressed and require a systematic policy intervention

revitalize and cure the health condition of the respondent in the study area.

# CONCEPT OF TRIBE AND STATEMENT OF THE PROBLEM

Irrespective of the progress a country has achieved the tribals constitute a major part of the vulnerable segment everywhere in the world as well as in India. India has the second largest concentration of tribal population after that of the African Continent. The total Scheduled Tribe population in India as per 2011 Census is about 10.42 crores, which constitute about 8.6 per cent of the total population. In Tamil Nadu around 4.5 per cent of the tribal population of the state is concentrated in the Nilgiris district along with the majority non-tribal population. The tribes, living in the Nilgiris district are Todas, Kotas, Kurumbas, Irulas and Paniyas. The present study is an attempt to analyse the COVID - 19 and its impact on Kurumba tribal community in Nilgiris district and their nature and believes of health care.

The 2019-20 coronavirus pandemic is an ongoing pandemic of coronavirus disease 2019 (COVID-19) caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). The COVID 19 pandemic, also known as the coronavirus pandemic, is an ongoing pandemic of coronavirus global disease 2019 (COVID 19), caused by severe acute respiratory syndrome coronavirus 2 (SARS CoV 2). World Health Organization declared the outbreak a Public Health Emergency of International Concern on 30 January 2020 and a pandemic on 11 March. As of 11 July 2020, more than 12.5 million cases of COVID 19 have been reported in more than 188 countries and territories, resulting in more than 560,000 deaths; more than 6.88 million people have recovered. The virus is primarily spread between people during close contact, most often via small droplets produced by coughing,

sneezing, and talking. The droplets usually fall to the ground or onto surfaces rather than travelling through air over long distances, although in some cases they may remain airborne for tens of minutes. Less commonly, people may become infected by touching a contaminated surface and then touching their face. It is most contagious during the first three days after the onset of symptoms, although spread is possible before symptoms appear, and from people who do not show symptoms.

Let us control with the spreading of COVID - 19 Pandemic in the tribal area revealed in the vocabulary of Anthropologiest which states that, Tribe is a social group, usually with a definite are, dialect, cultural homogeneity, and unifying social organization. It may include several subs - groups, such as sibs, settlements or villages. The present paper highlights that the use of traditional herbs and medicines, as well as the social distancing and hygiene norms rooted in tribal culture, have kept them safe from the coronavirus pandemic until 31 May, 2020 no one in the tribal areas of Nilgiris district had been affected by Covid-19.

The cultural practices rather help in tackling the disease and can be useful in contracting pandemic like Corona, as the basic maintenance of hygiene at home and workplace along with the social distancing is the key in fight. It also credited the washing of hands with hearth ashes, leaving shoes outside the door, groups sitting with sizeable distance between individuals and other habits of rural and tribal culture for preventing Covid-19 infections.

In terms of income, as a tribal either you are working as a worker at a tea estate or you make money by selling forest produce. All that has been shut now for some time. Subsequently these restrictions have put them in a very tough spot. Forest department officials are not allowing them to go

to forests even to dig out tubers to feed themselves. It is not as if, all of a sudden, our forests have potentially dangerous and explosive Covid-19 hotspots.

In the study area you don't really expect officials to deliver food grains to your doorstep. The message is you go and collect the food. But they go in time of social restrictions is a major problem. The government needs to set up a response team which can monitor these problems in real-time. A large section of people are looking at the food distribution systems in urban areas and extrapolating the scenarios from there.

## KURUMBA TRIBES IN THE NILGIRIS DISTRICT

Kurumba Tribes in Nilgiris are also facing these type of problems. They are a group of people, usually staying in jungle areas, in a small locality, absolutely illiterate poor, hardly clad in clothes, usually dark and frail, fully living within their own community whose marriage always takes place among themselves, engaged hunting and searching for roots, shoots and fruits as their vegetable food and roasted animals as non-vegetable food, completely oblivious of the country's political and economic condition. resisting all efforts of development and have a strong dislike for strangers and educated modern community. They are Seven categories of kurumba tribes in Nilgiris such as Alu Kurumbas, Palu Kurumbas, Madugas, Betta Kurumbas, Jena Kurumbas, Mullu Kurumbas, and Urali Kurumbas.

## **DEMOGRAPHIC PROFILE**

The total population of Kurumbas was estimated to be nearly 88,750 and distributed all over the district in Tamil Nadu as per 2011 census. The women population outnumbered male population. The Kurumbas who live in nuclear families are more than in

joint families. The Kurumbas favour modern education for both boys and girls. Even among the boys, there were a few drop outs after primary school, to assist their parents in earning a livelihood. According to the Nilagiri Adivasi Welfare Association Report, there were 36.52 per cent of Kurumba literates in the Nilgiris district.

## **OCCUPATION**

The Kurumbas' primitive occupation was shifting cultivation. They were a food gathering community. Many Kurumbas had occupational migration. The Nilagiri Adivasi Welfare Association Report showed that out of their total population 58.92 per cent constituted workers. A majority of them, i.e., 42.75 per cent were engaged in agriculture. This was followed by 15.23 per cent of industrial workers, and 29.65 per cent were in government service. The remaining 12.29 were in various other unorganized services.

#### **FOOD**

The habits and customs of Kurumbas are worth mentioning for indicating their level of civilization. They eat flesh and drink liquor, a favourite beverage being prepared from ragi flour (Eleusine coracana). They subsist on wild bamboo seeds and tender terminal vegetative part of bamboo, called odaikuttu, edible yams and roots. They collect the roots and wild yams (Dioscorea), part of which they eat, and the rest they exchange with farmers for grains. They prepare good food like higher caste people and relish the same.

#### HOUSING

The Kurumbas are regarded as very old inhabitants of this land. They live in small detached huts in the interior of the forests far away from inhabited places. The villages of Kurumbas are called Motta, Kombai or Padi. The village consists of only four or five huts made of mud and wattle with thatched

roofs of grass. The front of the house was sometimes whitewashed and ornamented with crude drawings of men and animals in red earth and charcoal.

#### **OBJECTIVES OF THE STUDY**

The overall objective of the paper is to study the COVID – 19 Pandemic and its impact on Kurumba tribal community in Nilgiris district and their nature and believes of health care in theoretical perspectives. The specific objectives are:

- 1.To understand the severity of COVID-19 Pandemic and its impact on Kurumba tribal settlements in Nilgiris district of Tamil Nadu.
- 2.To assess the health status of the tribal population.
- 3.To understand the problems, difficulties and constraints faced by the respondent Households due to COVID 19 Pandemic situation in the study area, and
- 4.To suggest suitable policy measures to control the COVID -19 Pandemic in the study area.

# SCOPE AND IMPORTANCE OF THE STUDY

The existence of socio-economic inequalities and political in underdeveloped economies terrible. These inequalities are mainly due to low rate of development, which is influenced by economic as well as non-economic factors. The economic inequalities can be attributed to the low rate of gains of development. The latter leads to the inequalities in the distribution of health care services and hence causes variations in the standard of living of different sections of society in general and tribals in particular. As a result of the significant disruption that is being caused by the COVID -19 Pandemic among the Kurumba tribals in Nilgiris district are very aware.

Although for most people COVID-19 causes only mild illness, it can make some people very ill. More rarely, the disease can be fatal. Older people, and those with pre-existing medical conditions (such as high blood pressure, heart problems or diabetes) appear to be more vulnerable. While many people globally have built up immunity to seasonal flu strains, COVID-19 is a new virus to which no one has immunity. That means more people are susceptible to infection, and some will suffer severe disease. Globally, about 3.4% of reported COVID-19 cases have died. comparison, seasonal flu generally kills far fewer than 1 percent of those infected. Quarantine is meant for asymptomatic and healthy persons who may have been exposed to the COVID-19 infection but are not manifesting any symptoms. Therefore there is no question of discharge of such persons. However their stay under quarantine period will remain 14 days from the date of last exposure.

The results of this study will go a long way in analyzing the impact of COVID – 19 on weaker sections of the society in general and the tribals in particular for identifying the causes for their backwardness and formulating suitable policies for their development. Based on the foregoing analysis, this research paper concentrate on COVID – 19 and its impact on Kurumba settlements of Nilgiris district in Tamil Nadu. It is socially and timely relevant one and need of the hour.

## **DESIGN OF THE STUDY**

The Nilgiris district of Tamil Nadu was the study area for this research work. The option of the area for the current study was based on the subsequent considerations. Multistage stratified random sampling method becomes essential when a

sufficient number of rare units are to be identified in a sample. Hence, the above sampling method was adopted in this study.

An investigation survey was undertaken to acquire firsthand information of the sample population. The pertinent data used in the study were collected both from primary and secondary data and sources of information. This study was based on systematic diagnosis of local conditions and intended to collect an inclusive profile of COVID – 19 situation of households. The extent of collected data was then scrutinized and relationship between different facets was assessed. In view of the objectives of this study, a detailed Interview Schedule was prepared.

#### **REVIEW OF LITERATURE**

Review of related literature and studies is an significant aspect of research work. It gives a comprehensible idea about the research problem under study. The investigation of related literature and studies helps for locating, reading and evaluating reports of researchers that are related to planning research reports.

Harkness (1832), pointed out that they have no marriage contract, the sexes cohabiting almost indiscriminately, the option of remaining in union, or of separating, resting principally with the female.

**Thurston** (1909), mentioned that Castes and Tribes of Southern India. He discussed about marriage, religion and rites of passage prevalent among these groups.

Jesurathnam (1992), explained that the Health planners and health workers of tribal areas should take note of the cultural practices of their clients to ensure good maternal and child health and obstetric care.

**R.K.Kar** (1993), stated that the tribals believe in traditional methods of curing the ailments. Firstly they approach the traditional healers for

treatment and then to other medical care.

**Salil Basu** (2000), observed that tribal is the strong believers of the supernatural therapy for the cure of diseases. The unsanitary condition, lack of personal hygiene and health education are the main causes of ill health. The high rate of maternal and child mortality is due to the primitive practices of parturition.

Rahman., Kielmann, McPake, and Normand (2012), aimed at exploring the context, reasons, and choices patterns of healthcare-seeking in behavior of the hill tribal population of Bangladesh to present the obstacles and challenges faced in accessing healthcare provision in the tribal areas. **P.Manikanta** (2013), focuses the health status of tribal elderly of Andhra. It shows that the above 80 years aged category was found to be having more health complication (61.2 percent) followed by 70-79 age category (52.4 percent) and 60category (39.4 percent) 69 age respectively. The study further reveals that the main illness related to aged people was knee pain (39 percent) cold (0.3 percent), Blood Pressure (9.7 percent), Asthma (1.7)percent), percent) Sugar/Diabetes (1.3) Digestion (1.3 percent).

Anjali(2013), Mentioned that tribal communities in the country show a varied state of health and Poor infrastructure sanitation. development couple up with remote and inaccessible landscape makes their lives more miserable and backward. They remain at the very different state of development in comparison to the general population in the country.

Logesh .R, Dhanabal .S.P, Duraiswamy. B, Chaitanya.M.V.N.L, Dhamodaran. P and Rajan. S (2017), pointed out that the traditional medical practices and their usage of plants as crude drug for various common ailments were recorded from Nilgiri tribes namely;

Irulas. Todas. Kotas. Kurumbas. Paniyas and Kattunayakas are given. De (2017), views tribal suffered from inadequate food consumption resulting in poor health condition. They have less calorie intake and become more nourished. They suffer from a number of diseases like diarrhea, malaria, TB, anemia, and others. PHCs are nor located in the proper area due to which tribal women have to face a lot of problems.

**Kiran Dungdung, B.K. Pattanaik** (2020), Stated that the well-known phenomenon of tribal disadvantage in India requires constant monitoring to ensure diligent attention to equitable protection of tribal people's right to life.

## **HEALTHCARE STATUS**

Kurumba Tribal areas in Nilgiris has already suffer from a severe shortage of basic healthcare facilities, shortage of healthcare professionals, lack of information and awareness, of proper guidance and knowledge and insufficient healthcare inForest Rights Actstructure, etc., leading of to prevalence diseases such malnutrition, malaria, as leprosy, tuberculosis (TB) and others. Absence of healthcare facilities can cruelly limit the capacities to transaction with any major COVID - 19 outbreak in the Kurumba tribal areas of Nilgiris district posturing a severe warning to the Kurumba tribal population in Nilgiris. COVID-19 impacts people compromised health circumstances and low immunity. This increases risks of contamination to the Kurumba tribal and forest communities livelihood in dispossession. Testing and monitoring of the infection is insufficient and is frequently imperfect to certain areas. Providing testing facilities in Kurumba tribal areas in Nilgiris is a foremost challenge.

## LIVELIHOOD STRATEGIES

The lock down has affected collection,

use and sale of Minor Forest Produces (MFP) by Kurumba tribals and forest dwellers in Nilgiris. As per 2011 Census, around 100 million forest dwellers and tribals depend on MFP for food, shelter, medicines and cash income. The MFP collection season from April to June provides major income support to Kurumba tribals in Nilgiris and, most unfortunately, it coincides exactly with the lockdown impacting the communities right now, which may have a drastic and long term impact on Kurumba tribals livelihood and survival in Nilgiris. The most important MFP system announced by the Central Government is the Van Dhan Vikas and Minimum Support Price schemes are not enough to address the MFP issues due to absence of institutional support in the tribal areas. The trading and value chain of Non - Timber Forest Produce (NTFP)s has been totally dislocated under the lockdown as traders are not willing to buy NTFPs in the contemporary circumstances due to the severe impact of COVID -19 Pandemic.

# PRIMITIVELY HELPLESS TRIBAL GROUPS (PHTGS) IN RELENTLESS SUFFERING

The COVID-19 lockdown procedures are reported to have exaggerated right of entry to forests and livelihood behavior of the PHTGs. They have reported troubles due to boundaries on their movement. There are sorrow situations being reported from PHTG areas due to lack of access to public distribution system and other rights.

#### **COUNTRIFIED AND ROAMING COMMUNITIES**

The migration and seasonal access of pastoralists have been constrained due to the lockdown. Many countrified communities are reported to be fixed in other states and districts without access to provisions and food for the livestock. Also countrified communities have been exaggerated as the milk economy faces relentless crisis as procurement

and sale has been disrupted during the COVID – 19 lockdown period.

## **TENURIAL UNCERTAINTY**

Though the Forest Rights Act (FOREST RIGHTS ACT) recognizes the inequality faced by communities and provides for Community Forest Rights (CFRs) and Individual Forest Rights (IFRs), the lack of due recording of accessible forest rights and ensuing tenurial uncertainty is likely to increase susceptibility and more harmfully impact livelihoods and food security of forest dwellers in the COVID – 19 lockdown period and after.

# CONSTRAINT OF MOVEMENT IN NATIONAL PARKS AND SANCTUARIES

It is instructed all states and union territories to make certain lessening boundary from human wildlife beainning end constraint to movement of people to National Parks, Sanctuaries and Tiger Reserves. This suggested would instantly people living in and around protected These mostly areas. are tribal communities including PHTGs, roaming pastoralist communities, workers, among others and are most dependent on the natural resources within and around the protected areas for their livelihoods. There is great danger of this recommended being misunderstood and misused to further alienate and restrict access of these communities to the natural resources that they are needy on for their lives and livelihoods.

## **FOREST LAND DISTRACTION**

Distraction of forest land without the approval of Gram Sabha in violation of the Forest Rights Act continues even during the COVID - 19 lock down. It is a substance of apprehension that there has been clearing forest diversion proposals at this time and has issued new guidelines relaxing forest and environmental clearance norms for new leases.

Compensatory Afforestation

There is description of Compensatory Afforestation plantations being conventional out on forest land used by tribals and other customary forest dwellers, together with by Forest Rights Actmework of such areas accessed for community rights. These actions are not only in direct violation of their rights under the Forest Rights Act, but also are causing severe distress to the tribals and forest dwellers in the present situation by impacting their livelihoods and destroying agro biodiversity.

# ECOLOGICAL COLLISION APPRAISAL AMENDMENTS

The environment ministry amended the rules for Environment Impact exempting numerous Assessment projects from categories of the requirement of environment clearance without considering the short and long term impacts of such decisions on the livelihood security of the forest dwelling communities. The amendment has also watered down the provision to obtain written consent of Gram Sabha under Forest Rights Act. Moreover, attempts at pushing for post facto environment for projects that already clearance started defying environmental norms are also being made during this period.

## **OTHER PROBLEMS**

Evictions have taken place in some tribal areas and have sustained creating divergence in many areas. There are also reports of deforestation taking place in several areas.

#### VITAL STEPS SUGGESTED

• Regardless of the COVID - 19 lockdown being in force since March 24, the Central government is yet to come up with a inclusive COVID -19 reaction plan for Kurumba tribals and forest dwelling communities in Nilgiris. Apart from several other suggestions talk about in the statement, these are few steps that instantaneously require

to be taken by the governments.

- The Ministry of Trial Affairs to set up COVID -19 response cell and issue specific guidelines to address the issues and problems of Kurumba tribals and forest dwellers in Nilgiris.
- The Central Government should organize with the state governments to supply instant relief to the tribal communities in general and Kurumba tribes in particular by ensuring in sequence and awareness, providing health care and testing facilities in the Kurumba tribal areas in Nilgiris, support for Minor Forest Produces collection and sale.
- The Central Government should look into the cases of forest rights violation and eviction due to mining and forest diversions, plantations by forest department, restrictions on access to forest for livelihoods activities, etc.
- The Ministry of Trial Affairs should also make sure that district and subdistrict level officers are well informed about all relevant guidelines and orders related to COVID 19 and lock-down issued by the centre, states and local administration from time to time and that these are complied with.
- The The Ministry of Trial Affairs should work with state tribal departments to uraently devise effective institutional mechanisms for the collection, storage, procurement and sale of non - timber forest produce during the ongoing collection season. Necessary financial and logistical support should be provided to the Gram Sabhas and forest management committees constituted under Forest Rights Act together with other direct procurement from the gatherers.
- The Ministry of Trial Affairs should take necessary steps to release the huge compensatory afforestation fund to the Gram Sabhas constituted under Forest Rights Act to support community forest management for generating livelihoods and wage employment for tribals and forest dwellers to deal with

the economic crisis.

- Ensuring support to vulnerable communities such as the PHTGs and pastoral communities.
- Effective implementation of Forest Rights Act, so that communities are more secure in the long run.

## CONCLUSION

The deadly coronavirus may not have caused havoc in these far-flung pockets, but mitigation measures, including shutdown and restrictions on movement, have hit them hard. The Kurumba settlements in Nilgiris district seem to be fully aware of the global menace and are enforcing social distancing norms as well as barricading entry points to keep the outsiders away. They are critical not just in sensitizing Kurumba tribals on the coronavirus and restricting outsiders, but also in ensuring the availability of foodgrains and vegetables.

The district administrations have also sought help of newly formed rural squads to enforce the lockdown and facilitate delivery of essential goods to households. On how the tribals' lifestyle is helping them stay safe from Covid-19 Pandemic. They are living close to nature and they eat what they grow. They generally cook food themselves and eat simple food. The clothes are washed each day by ashes of the hearth. Most of the traditional dances and songs are played in such a way that social distance is maintained without any extra effort, it is followed traditionally in a routine matter. The thrust of tribal tradition and culture is on self-reliance.

In Kurumba settlements in Nilgiris, Covid-19 Pandemic is being considered as dangerous infection. So, Kurumba tribes are waiting for the lockdown to lift to perform rituals at village and tribe levels. In times of Corona, people have made white circles at the hand pumps and solar pumps. They made masks with leaves. The cultural values,

life style, world view and ethos did not allow them to have fear psychosis from Covid-19. However, counseling is required to sustain mental health of the Kurumba tribals in Nilgiris.

Overall, Kurumba tribals and other forest-dwelling communities in Nilgiris district have been unfavorably affected by COVID-19 and lockdown measures. The impact of COVID-19 outbreak and lockdown measures on Kurumba tribals and other forest dwellers in Nilgiris comprises concerns shared by Kurumba tribal communities in the study area. It has been compiled from information gathered by activists working on the ground and tribal rights networks from across the Nilgiris district of Tamil Nadu. There is a lack of healthcare facilities in Kurumba tribal areas in Nilgiris district and the lack of an institutional mechanism to address the loss of livelihood from minor forest produces by Kurumba tribals and forest dwellers in the study area.

## **REFERENCES**

- 1. National Council of Applied Economic Research (1965), "All India Rural Household Survey Saving Income and Investment", Vol. II, (New Delhi: National Council of Applied Economic Research).
- 2. Government of India(1995), "Census of India 2011, General Economic Tables Series 28, Part A & B", New Delhi" Government of India Press.
- 3. Ganguli and Gupta(1976), "Levels of Living in India: An Inter-State Profile", (New Delhi: S. Chand and Company).
- 4. Nayak and Prasad(1984), "Levels of living of Scheduled Castes and Scheduled Tribes", Economic and Political Weekly, Vol. XIX, No. 30.
- 5.Bayham J, Fenichel EP (2020), "Impact of school closures for COVID-19 on the US health-care workforce and net mortality a modeling study", Lancet Public Health 2020 (published online Apr 3) VIEW AT Lancet Public Health
- 6.Bessiere F, Roccia H, Deliniere A, et al (2019), "Assessment of QT intervals in a case series of patients with coronavirus disease (COVID-19) infection treated with

- hydroxychloroquine alone or in combination with azithromycin in an intensive care unit", JAMA Cardiol (Research Letter) 2020 (published online May 1) VIEW AT JAMA Cardiol
- 7.Bhatla A, Mayer MM, Adusumalli S, et al (2020), "COVID-19 and cardiac arrhythmias", Heart Rhythm (published online Jun 22) VIEW AT Heart Rhythm 8.CDC COVID-19 Response Team (2020), "Characteristics of health care personnel with COVID-19—United States", February 12–April 9, 2020. MMWR Apr 14;69 VIEW
- AT MMWR 9.CDC COVID-19 Response Team (2020), "Corona virus disease 2019 in Children United States", February 12–April 2, 2020. MMWR (published online Apr 6) VIEW AT MMWR
- 10.Chiotos K, Hayes M, Kimberlin DW, et al (2020), "Multicenter initial guidance on use of antiviral for children with COVID-19/SARS-CoV-2", J Pediatr Infect Dis Soc 2020 (published online Apr 22) VIEW AT J Pediatr Infect Dis Soc
- 11.Drew DA, Nguyen LH, Steves CJ, et al (2020), "Rapid implementation of mobile technology for real-time epidemiology of COVID-19", Science 2020 (published online May 5) VIEW AT Science
- 12.Gold JA, Wong KK, Szablewski CM, et al (2020), "Characteristics and clinical outcomes of adult patients hospitalized with COVID-19", Georgia, March 2020. MMWR 2020 Apr 29;69 VIEW AT MMWR 13.Hartnett KP, Kite-Powell A, DeVies J, et al (2020), "Impact of the COVID-19 pandemic on emergency department
- pandemic on emergency department visits", United States, January 1, 2019–May 30, 2020. MMWR (published online Jun 3) VIEW AT MMWR
- 14.Jorden MA, Rudman SL, Villarino E, et al (2020), "for the CDC COVID-19 Response Team. Evidence for limited early spread of COVID-19 within the United States", January-February 2020. MMWR 2020 (published online May 29) VIEW AT MMWR.