



The Repercussions of the Corona Pandemic and the Need to Improve the Health System in Algeria

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Abstract

The study aims at highlighting the reality of the Algerian health system under the Corona pandemic by referring to the most important imbalances that's suffering from and its main causes, as well as to the most important measures and decisions taken by Algeria to improve the health system during the outbreak of the Corona epidemic.

The study reached a number of findings, the most important of which is that health care in Algeria is still far from the required level, and the pandemic revealed the disdain of the health system infrastructure in Algeria. Therefore, it is resulting in its inability to provide the necessary health protection and consequently to resort to temporary solutions.

Key Words: Algeria; Corona virus; Health; Health system; Improving the health system.

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Introduction :

The health sector has received little attention from economic and social researchers despite its importance, especially its uniqueness from the rest of the sectors through the social dimension and its human impact. Most of the research was focused on the economic sector, yet the current reality forces thinkers to pay attention to this aspect.

In light of the Corona pandemic, interest in the national health system in general and hospitals in particular has become an urgent necessity and priority. The Corona pandemic has revealed the severe weakness of the health system in Algeria, and the bitter reality that this service sector suffers from. This is due to the weakness of the health infrastructure, and the absence of adequate resources to prepare for and face such crises, and based on Algerian President saying, "The crisis gives rise to vigor." It is imperative to conduct a comprehensive review of the health situation in Algeria, and the Corona crisis must be transformed into an opportunity to review the health system from the ground up, by building a modern health system that would comfort the citizen and guarantee him adequate treatment, improve working conditions for sector professionals, and thus enhance health security in Algeria.



Thus, reviewing the health system is an urgent necessity in the era of viruses and dangerous diseases, and the beginning is by defining a national health strategy, setting its goals, and reviewing the catastrophic management of the sector, and from it the study seeks to answer the following main question:

How did the repercussions of the Corona pandemic contribute to discovering the real weakness of the Algerian health system, and what is its role in reconsidering the improvement of the sector?

The following two sub-questions stem from the main problem:

- How did the repercussions of the Corona pandemic contribute to discovering the weakness of the Algerian health system ?
- What is the role of the Corona pandemic in reconsidering the improvement of the health system?

Main hypothesis: In order to answer the study problem, the following main hypothesis was formulated:

- The repercussions of the Corona pandemic contributed to discovering the weakness of the Algerian health system, through the difficulty of dealing with the virus due to the lack of capabilities and mismanagement. This necessitated the application of rapid and innovative procedures, most of which include more attention to the human element.

The main hypothesis branches out the following **two sub-hypotheses**:

- The repercussions of the Corona pandemic contributed to discovering the weakness of the Algerian health system through the difficulty of dealing with the crisis.
- The repercussions of the Corona pandemic necessitated the application of rapid and innovative measures, most of which include more attention to the human element.

Importance of the study: The importance of the study stems from the critical importance of health services and the health system as a whole. Whether for the individual or society, and its importance, especially in light of the Corona pandemic, appears through the awareness and preventive role that aims to reduce the health, social and economic impacts of this pandemic.

Study Objectives: This study aims to:

- Shed light on the reality of the Algerian health system in light of the global outbreak of the Corona pandemic.
- Pointing out the most important imbalances in the Algerian social health system and the most important causes of them.
- Referring to the most important measures and decisions taken by Algeria to improve the health system after the outbreak of the Corona epidemic.
- Provide some suggestions related to the topic.

Study methodology: In order to provide study data and achieve the desired goals, the descriptive and analytical approach was used, which is used to describe economic phenomena and provide future predictions about them, and to assist in making various decisions, as the reality of the Algerian health system was reviewed



and described in light of the outbreak of the Corona pandemic and from Then access to results that answer the problem of the study.

Study structure: In order to achieve the objectives of the study and answer the problem, it was divided into the following main elements:

- Concepts about the health system and the Corona pandemic.
- The reality of the Algerian health system in light of the outbreak of the Corona pandemic.
- The measures and decisions taken by Algeria to improve the health system after the outbreak of the Corona pandemic.

I. Concepts about the health system and the Corona pandemic:

1. General concepts about the health system:

1.1. The concept of the health system: the health system is the group of coherent and structured elements for the purpose of prevention, health promotion and treatment distribution to all members of society, and it can also be defined as a group of coordinated activities among themselves that have peculiarities in comparison with other economic and social activities. (Sultani, 2015/2016, p. 135)

The health system provides a variety of health services, as it includes a group of resources, organizations and various parties that coordinate among themselves to provide health care to individuals in a particular country.

1.2. Components of the health system: the health system consists of:

a. Human resources: Human resources are considered one of the important basics in achieving health care, so that a good workforce is one of the most important reasons that achieve the best results in responding to the needs of individuals within the available resources, and the efficiency of the workforce varies from one country to another, but the development continues in Improving employment education, and training, and improving the productivity and performance of individuals in the health care service (Chichani, 2019)

b. Financial support and financing: The sources of health financing include public sources such as taxes, in addition to government health insurance programs, aid, grants and external and charitable donations, personal and voluntary insurance. (Sultani, 2015/2016, p. 27).

c. Buildings and structures used: These include clinics, medical centers, hospitals, pharmacies, dispensaries and laboratories, provided that they are designed in a way that helps to provide health services and in appropriate environmental conditions.

d. Professional and technical component: It includes people who provide health services to those in need, such as human doctors, dentists, nurses and pharmacists ... etc.

e. Devices and equipment: It is considered as one of the main elements of providing health services, as the provision of advanced devices, equipment and machinery equipped with modern technology techniques helps to accurately diagnose and treat diseases and increase the level of quality of health service provided.



f. management of the health system: the administration plays a vital and important role in managing the health system and undertakes strategic planning, evaluating health programs, training medical students and other related professions, conducting health research, leading the health system, setting standards for monitoring performance, improving outputs, processes and inputs Health system, regulation of environmental conditions and licensing of accreditation of medical professions and health institutions. (Sultani, 2015/2016, p. 27).

1.3. Health System Improvement and Reform: The improvement and reform of the health system includes the following (Bouchlagham & Shourfi, 2017, p13):

- Reforming financing through health insurance.
- Institutional reform aimed at defining precisely and clearly the role of all health actors.
- Reforming hospitals as part of an integrated treatment system.
- Improving and reforming the health system requires a series of procedures of a managerial and financial regulatory nature that allow improving the effectiveness of the public hospital sector and making it more competitive. Hospital reform is an integral part of reforming the national health system in general, and the basic elements of health reform in developing countries can be identified in:
 - Improving health coverage and addressing regional disparities in treatment offer.
 - Establishing institutional frameworks to take care of the needy.
 - Improving the management of health interests, knowing that hospital reform is only the aspect that reflects the policy of controlling costs, harnessing and rationalizing resources. (Bouchlagham & Sharafi, 2017, p. 13)

2. General concepts about the Corona pandemic:

2.1. Corona pandemic concept: Corona pandemic, corona disease, or viral coronavirus is a viral disease that appeared in December 2019 in Wuhan, the capital of Hubei Province, China, and this highly contagious disease is currently spreading all over the world, with a daily increase in the number of affected countries, confirmed cases and deaths related to infection Updated data are published on a daily basis on the(WHO) websites. (corona, 2020)

The virus is transmitted from one person to another through coughing or exhaling drops by infected people and touching surfaces or shrapnel contaminated with the drops and then touching the eyes, nose or mouth, and its most common symptoms are fever, dry cough and fatigue, shortness of breath, sore throat, headache, muscle pain or Arthralgia, the less common symptoms are diarrhea and vomiting. (ECDC, 2020, p. 2)

2.2. Coronavirus containment strategies:

There are many countries that have managed to contain the sudden and rapid spread of the Corona pandemic by following many common strategies; Which of the most important are:

a. Intensive testing: Early diagnosis is the first factor in dealing with the pandemic. No decisions or measures can be taken without knowing the number of infected people.



b. Isolation procedures: It is also a very important strategy in the face of the Corona pandemic and infectious diseases in general, as the procedures for isolating patients not only prevent the virus from spreading, but also help discover potential new cases, which may be in the early stages. (Quarantine., 2020)

c. Preparedness and good behavior: Acting quickly and wisely is one of the main reasons to help contain the disease and prevent the transmission of infection.

II. The reality of the Algerian health system in light of the outbreak of the Corona pandemic:

1. The development of the health system in Algeria:

The Algerian health system has gone through two distinct stages. which are the stage of the colonial era and the post-independence stage: during the colonial era and since the beginning of colonialism, the French developed a military hospital system according to the presence of their forces, so they established a number of hospitals that were primarily intended for Europeans, European medical education began in 1933 when a pathology course was given in Algiers, and in 1849 the Medical Association was established in Algiers, and the Faculty of Medicine was established in Algeria by decree on April 3, 1857. (M.Khiati, 2000)

After independence, Algeria found itself in a very difficult socio-economic situation and a deficit in the health sector, which was especially represented by insufficient health coverage. This deficit resulted in the wake of the mass emigration of doctors, pharmacists and executives of French health care, and the number of doctors was 285 Algerian doctors in the year 1963, i.e. a One doctor for every 35,000 people.

In 1975 there were 3212 doctors and the coverage rate was one doctor for every 4909 residents, and this period can be considered a period of success in the health aspect, especially with the start of free treatment, and also in 1976 the Public Health Law was approved, and the state strengthened medical studies that target both Of the qualitative and quantitative improvement, as well as the implementation of the reform of university education in the field of medicine, pharmacy and dentistry, that is, approximately 1000 doctors annually. (Ammar, 2019, p. 21)

The beginning of the third millennium was marked by the emergence of public institutions for neighborhood health. Its goal is to bring the hospital closer to the citizen, and in general, despite the efforts that the Algerian state made in the health field, it still faces many difficulties that prevented the achievement of the desired goals.

2. Analysis of indicators of the Algerian health system:

Despite the development that Algeria has is making witnessed in recent years, health care in it is still far from the required level compared to some neighboring countries, due to many factors that have negatively affected the course of its development, as Algerian health institutions face several criticisms, the most important of which is the poor management of material and human resources. And dependency on the outside, which hinders effective care for patients, and this was evident especially after the emergence of the Corona pandemic, which revealed



many of the deficiencies that the sector suffers from, and the most important indicators of the sector can be highlighted as follows:

2.1. Health sector financing: Despite the state's interest in the health sector, which enjoys considerable financial cover; For example, within the framework of the public investment program for the period between 2010-2014, the health sector has benefited from a financial envelope estimated at 619 billion Algerian dinars, and the health master plan for the period 2009-2025 expects investments estimated at 20 billion euros to build new health facilities as well as modernize existing hospitals and maintain the infrastructure. hospital equipment, and training of health agencies. (Development, 2013)

The evolution of the health sector spending share in GDP every two years from 2003 to 2017 can be illustrated in the following table:

Table 1: The evolution of spending on the health sector from 2003 to 2017

(% of GDP)

Year	2003	2005	2007	2009	2011	2013	2015	2017
Rate	7.9	8	7.9	8.8	8.7	8.8	8.8	8.8

Source: OECD, health statistics 2019, available at: <https://www.oecd.org/fr/sante/base-donnees-sante.htm>, accessed: 4/6/2020

From the above table, despite the development of spending on the health sector, Algeria suffers from the fragility of its health system, and weakness in the services provided in this field, and this is what was confirmed after the outbreak of the Corona pandemic in the country.

2.2. Life expectancy rate: It is considered one of the most important positive indicators related to the health of individuals, and the development of life expectancy rate for an Algerian individual every ten years starting from 1970 can be shown in the following table:

Table 2: Evolution of life expectancy rate in Algeria from 1970 to 2018

(age)

Year	1970	1980	1990	2000	2010	2018
Rate	50.37	58.20	66.94	70.64	74.94	76.69

Source: World perspective, School of Applied Politics, University of Sherbrooke, Quebec Canada, 2020. <http://perspective.usherbrooke.ca/bilan/tend/DZA/fr/SP.DYN.LE00.IN.html>, consulted on: 4/6/2020.

2.3. Newborn mortality rate: It is considered one of the most important negative indicators related to the health of individuals, and the development of the neonatal mortality rate every ten years starting from 1970 can be shown in the following table:



Table 3: Evolution of the neonatal mortality rate in Algeria from 1970 to 2018
(%of newborns)

Year	1970	1980	1990	2000	2010	2018
Rate	69.9	46.10	23.40	21.30	17.99	14.6

Source: World perspective, School of Applied Politics, University of Sherbrooke, Quebec Canada, 2020. <http://perspective.usherbrooke.ca/bilan/tend/DZA/fr/SP.DYN.LE00.IN.html>, consulted on: 4/6/2020.

The two previous tables note the continuous positive development of the two indicators, especially due to the state's keenness to provide vaccines against infectious diseases. Such as tuberculosis, Al bouhamroun, and even colds, and also to its keenness to deliver health care services to various points of the country; Including remote areas, without neglecting free health care.

2.4. Health coverage by population: With Algeria consecrating the right to health as a human right, and with the significant increase in the population, it encouraged the professions of medicine, nursing and dental surgery; In 2015 statistics, more than 80,000 health practitioners were counted compared to 38,000 in the year 2000, and the health coverage for both doctors and paramedics during the years 2005, 2009 and 2014 can be shown in the following table:

Table 4: Health coverage by population from 2005 to 2014

One/inhabitant	2005	2009	2014
Medical staff	670	491	491
Paramedical	367	290	290

Source: Hawalif Rahima, The reality of health services in Algeria between achievements and difficulties, Foundation Magazine, Issue 6, 2017, p. 232.

Although the rate of increase in the number of doctors and paramedics is increasing, it remains insufficient with the increase in the demographic growth, and this is also due to the poor distribution of the medical staff that is concentrated in major provinces, such as Algiers, Oran and Constantine, and the rest of the provinces remain marginalized. especially the southern states.

3. The salient imbalances in the Algerian health system in light of the Corona pandemic:

3.1. Statistics on the spread of the virus in Algeria:

After the Coronavirus pandemic of 2020 spread in Algeria since February 25, 2020, which concerns an Italian citizen whose positive analyzes of Corona virus disease appeared, and then revealed other cases infected with Coronavirus, Algeria has reached a critical stage of the virus outbreak; It is considered one of the most affected Arab countries most affected by it, as the number of injuries reached (46,364) until 6/9/2020, compared to (1,556) deaths, which is a high rate compared to other countries such as Tunisia and Morocco.

The number of injuries witnessed a remarkable development at the beginning, then began to decrease on a daily basis, as is the case with regard to deaths, and in



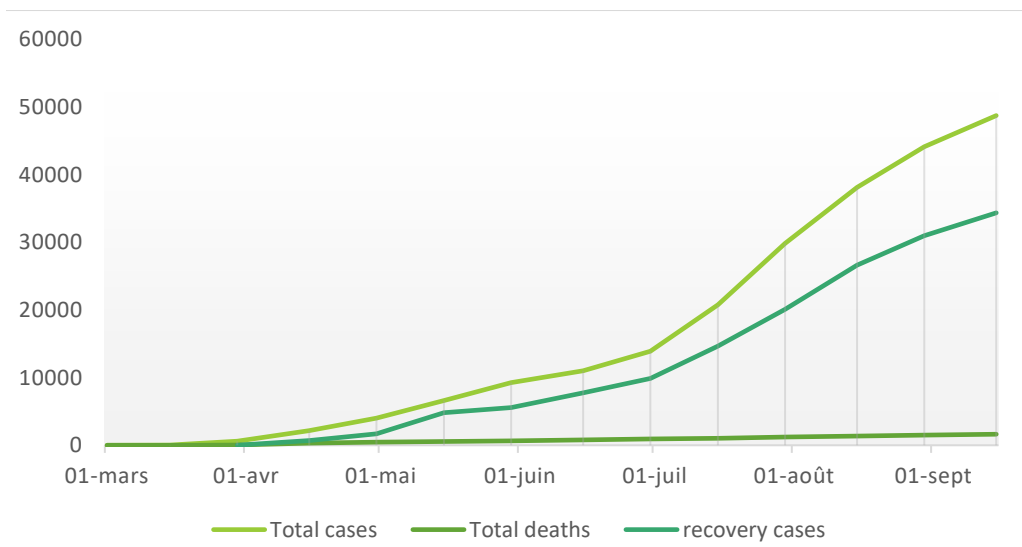
contrast recovery cases are witnessing a remarkable increase, which is indicated by the following statement:

Table 5: The development of injuries, recoveries and deaths, the bi-monthly in Algeria 2020

Dates	1/3	15/3	30/3	15/4	30/4	15/5	30/5
Deaths	0	4	35	336	450	536	646
recoveries	/	/	6	708	1702	4812	5549
Injuries	3	54	584	2160	4006	6629	9267
Dates	15/6	30/6	15/7	30/7	15/8	30/8	15/9
Deaths	777	912	1040	1200	1360	1501	1632
recoveries	7 735	9 897	14676	20082	26644	30978	34358
Injuries	11031	13907	20770	29831	38133	44146	48734

Source : Prepared by researchers based on the daily reports of the Ministry of Health

Figure 1: Statistics of injuries, deaths, and cases of recovery from Corona in Algeria :



Source: Prepared by researchers based on the previous table.

It is noted that Algeria, despite the shortcomings and imbalances it suffers in the health sector, was able to limit the spread of the virus, thanks to the early isolation measures that lasted for more than three months, where many facilities were closed, such as schools, universities, mosques and shops As for Due to the decrease in the number of deaths and the high incidence of cure, it is due to the new treatment protocol "chloroquine" that Algeria has followed since late March.

With regard to deaths attributed to the Coronavirus according to age groups, persons between 24 and 44 years old represent 57% of the total cases, while 108% of the total deaths are persons aged 45 and 59 years, while the largest percentage is estimated at 505% Age groups are over 60 years old, which indicates that the vast majority of those who die from infection with the Coronavirus are elderly, because their immune system weakens with age.



3.2. The weaknesses of the Algerian health system in light of the Corona pandemic:

The weakness of the Algerian health system is manifested in light of the Corona pandemic through:

a. The lack of laboratory tests to detect HIV infection: At the beginning of the virus outbreak, detection analyzes were only conducted at the level of the Pasteur Institute only, as the directorates of health were transporting these analyzes by land to Algiers, and their results could not be obtained until after 24 hours or more, there are many Cases of deaths whose results appeared late, after which the network of laboratories was expanded in several states to 20 informants, after the formation of the laboratory teams that watched over them by the General Directorate in order to bring health closer to the citizen. It should be noted that the technique used in detection is the PCR technique that uses the DNA for diagnosis, so it requires a time of at least 6 hours, and it requires specialized cadres. (Ennahar, 2020). However, despite the efforts made by Algeria, the detection procedures remain slow and complicated, at a time when developed countries, such as China and European countries, and even some Arab countries such as the UAE are racing And Kuwait, which exploited digital technology to the greatest extent, in order to limit the spread of the virus through conducting medical examinations and rapid detection. Algeria remains suffering from a shortage of detection equipment that was not able to pass 400 tests per day, which is a very weak rate compared to developed countries, and given the speed of transmission of the virus.

b. Lack of resuscitation beds and respirators: Resuscitation beds are called specialized care units that aim to help the body and reduce the effects of failure of one or more human organs during illness. As for respiratory devices, they are used when acute failure is of a respiratory nature, as is the case with the owners of severe cases who are victims of the new Corona epidemic. The acute shortage of artificial respirators and the inability to provide adequate beds in resuscitation departments is one of Algeria's biggest challenges in its war against Corona. In this context, the Minister of Health revealed that Algeria has 2,500 ventilators, that is, 2,699 resuscitation beds, 2,500 anesthesia devices and another artificial respirator, In addition to 220 private clinics with 3 to 4 resuscitation beds, for a total of 6000 resuscitation beds. (servise, 2020).

c. Weak infrastructure: Algeria, like many other Arab countries, suffers from severe deficiencies in the health care system, as most hospital institutions, especially in the public sector, know a structural imbalance, especially at the level of coverage and geographical distribution, in light of the increasing demographic growth (more than 43 million breeze). In the country there are 56 health institutions in the center that provide services to 11 provinces, and in the west 55 institutions for 14 provinces, in the east there are 43 health sectors that provide services to 11 provinces, while in the southwest there are 20 institutions covering 7 provinces, and in the southeast there are 11 health institutions covering 5 provinces. According to the geographical distribution of facilities (80% in the north), the sector suffers from the central and peripheral complex, as those close to the capital



enjoy the most abundant health services, amid the reluctance of some doctors to practice their profession in the south and the plateau regions. (Elarkoubi, 2020)

d. Lack of equipment and means of prevention: With the spread of this global epidemic and at a time when countries are racing to discover vaccines, detection tools and provide resuscitation devices and protective equipment, we find the Algerian individual on a journey in search of the simplest means of prevention, namely protective masks and alcohol disinfectants, and he became intended many pharmacies perhaps he will gain some masks or a disinfectant bottle, which he buys at double price, because many pharmacists resort to increasing prices. What is surprising is that the crisis of the scarcity of medical masks and disinfectants not only affected ordinary citizens, but also affected hospitals and sector users, as some public sector doctors and nurses are forced to buy these products and pay for them with their own money, in addition to the lack of protective clothing, protective goggles and gloves, the matter which led the workers and assistants of the University Hospital Center in Blida, "Frantz Fanon" previously, to organize a protest against the shortage and sometimes the lack of means and tools to protect against infection with the Coronavirus, which ensures the safe practice of all health care workers who are directly or indirectly exposed to the risk of infection in the face of the Corona pandemic.

II. The measures and decisions taken by Algeria to improve the health system after the outbreak of the Corona pandemic:

1. Measures taken by Algeria to prevent the outbreak of the Corona pandemic:

The Ministry of Health, Population and Hospital Reform, in cooperation with the World Health Organization in Algeria, developed a media plan as part of the prevention of the Coronavirus, and the launch of this media plan comes immediately after the activation of the monitoring and warning system at the national level as soon as the World Health Organization announced the spread of the Corona virus, the plan consists al the establishment of a center to receive calls on the toll-free number 30-30, which was launched in Bordj el Kiffan at the central level, and the second axis of this media plan concerns the development of advertising websites in Arabic, Amazigh and French languages, so that they are broadcast on the national radio and television as well as on the Ministry of Health network.

In addition, the Ministry of Health has sent special instructions to all local directors of health and population in order to strengthen communication procedures for the benefit of the general public through radio channels and organize awareness campaigns about seasonal influenza and the Corona virus, as they have similar symptoms, moreover the ministry has published many publications on its Facebook page, on the Corona pandemic, and it works to answer citizens' questions about it (Bafer, no date)

Algeria has also allocated more than 70 billion Algerian dinars (one dollar equals about 125 dinars) to combat the Corona pandemic. Of these allocations, they



first included an appendix of 3.7 billion appropriations to the Ministry of Health, which was directed to obtain pharmaceutical products, medical devices, consumables and means of protection at a value of 3.5 billion dinars, reagents for research and services worth 100 million dinars, and thermal cameras worth 100 million dinars.

Appropriations of 16.5 billion dinars will be created for the Ministry of Health to cover the exceptional allowance for health sector workers working on the front lines in the context of fighting the Corona virus, and another appropriation annex has also been created for the benefit of the Ministry of Health with 8.9 billion dinars to support the strategy to combat the Corona pandemic . (Rawiah, 2020)

The Algerian president had inspected the central pharmacy, to see the national stock of medicines and medical supplies, and ordered the opening of a pharmacy center in the Tamanrasset region, in the south of the country. He also ordered the use of aircraft to distribute medicines to hospitals, to ensure their speedy access to the desert and interior regions in the depth of the country. The same framework requires tightening control over the quality of imported medicines by increasing the opening of laboratories with a sufficient number in all ports of the country.

2. Measures taken by Algeria to deal with the Corona pandemic:

At the beginning of the epidemic, Algeria had one diagnostic laboratory, the Pasteur Institute of Algeria, capable of conducting up to 130 tests per day, and on March 23, a new examination laboratory for the Coronavirus was opened under the supervision of the Pasteur Institute in Oran to reduce the pressure on the capital, which enabled the new center to give analyzes results within 3 or 4 hours, and a third extension of the Pasteur Institut entered service in Constantine on March 25.

According to the statements of the General Director of the Pasteur Institute in Algeria on March 23, the center has analyzed 2,500 suspected samples of the emerging corona virus since the outbreak of the epidemic in Algeria.

Since March 23, Algeria has adopted a new treatment protocol against the Corona virus, Chloroquine, an antimalarial that is commonly used in the treatment of rheumatic diseases, and has shown somewhat encouraging initial results in China and France, and according to Professor Ismail Mesbah (a member of the Scientific Committee), examinations will be carried out on patients who entered to the hospital in Blida, where most of those infected with SARS-Cove-2 are concentrated on the train in Algiers. Algeria has a sufficient stock of 110,000 units of this drug already available at the hospital central pharmacy and another 190,000 units to be imported.

On 5 April 2020, the first order for means of protection from the Corona virus arrived at Houari Boumediene International Airport in Algiers, coming from the Chinese city of Shanghai. 2020 to Houari Boumediene International Airport in the capital coming from Pikine, the second order of medical equipment, and the shipment estimated at 30 tons of protective equipment includes 500 thousand masks of type (2) FFP, Corona virus diagnostic devices (40 thousand diagnosed) and respirators (100 devices) On board two aircraft of the People's National Army Air Force, within 38 hours (Pandemic, 2020)



3. The decisions taken by Algeria to improve the health system after the outbreak of the Corona epidemic:

The outbreak of the new Corona epidemic forced the necessity of reviewing the health system, and among the decisions related to the future of the health system in Algeria, the announcement of the creation of a national health security agency that would protect and develop strategic plans for health security (Lahyani, 2020) and specialized in monitoring and following up various epidemics and diseases, and involving hospitals and research centers it was also decided to cancel the civil service for doctors, which was compulsory for all graduate doctors, and its duration is two years, provided that it is compensated in other forms, in addition to raising doctors' wages and compensating the efforts of the medical staff who worked in combating the Coronavirus, by calculating a monthly service in exchange for a full year in the balance of professional seniority and retirement years.

The decisions also included establishing a preventive health system that would be a revolution in the sector after the end of the Corona pandemic, and helping health sector users to private investment (Burnan, without date) with regard to importing health supplies, it was decided to implement everything programmed despite the improvement of the situation in anticipation of the future.

Several representatives of national unions also expressed their satisfaction with the President's decision to grant sector employees an allowance ranging between 10,000 and 40,000 dinars for administrative and support staff, paramedics and medical staff, for a period of three months, renewable.

In a related; Especially for youth initiatives, which represent one of the pillars of the industrial start of the new Algeria, it was decided to liberate the youthful energies, as their exploitation is of an urgent nature for the state, and in this context it was decided to activate the Small and Emerging Enterprises Support Fund, and to prepare laws organizing youth initiatives within clear frameworks. To pay more attention at the present time to the needs of hospitals, with the need to accelerate the generalization of digitization to serve the national economy, and to ensure transparency in management so that it becomes a touchable reality in the citizen's daily life improvement (Agency, 2020) while finding a flexible formula with the Ministry of Trade to facilitate and accelerate the extraction of the trade register for young entrepreneurs.

4. Healthy self-sufficiency, Algeria's next challenge:

During major global crises such as the new Corona virus pandemic that Algeria is currently going through, the importance of local production and self-sufficiency in medical equipment is highlighted, so the Algerian state decided to provide financial incentives and liberate initiatives to produce medical equipment locally, not with the aim of achieving self-sufficiency only, but for export. Also, the National Authority for health promotion affirms the necessity of the availability of three factors that would work to achieve health self-sufficiency in Algeria: the first is the formation of the human factor after completing university studies, and the revival of health scientific research that does not exist in Algeria despite the availability of experts in the field, secondly with regard to concerning the



manufacture and marketing of medicines, which has not been fully stable as well, after the absence of the strategies of the seventies that relied on covering all the needs of the continent of Africa, especially with regard to antibiotics. The third point relates to the problem of equipment that was imported years ago at a time when Algeria needs creating specialized teams to manufacture various medical devices locally. (Bafer, no date)

III. Results and discussion :

Despite the tremendous progress that many countries are making in the field of health; The Algerian health system still facing many shortcomings and challenges that hinder the process of reforming the sector, despite the necessary material and human resources being harnessed, therefor the Corona pandemic has revealed the weakness of the health system and this after its outbreak in the country; The problem in Algeria is not a problem of financial resources or human cadres, rather, it is an organizational and managerial problem.

Accordingly, this study has reached a number of results, the most important of which are:

- The Corona crisis revealed that Algeria has creative human energies that should be exploited to the maximum extent, those energies that for decades have been migrating abroad, it is time for them to guarantee their right in this country to live with dignity within a medium that brings competencies that do not repel them.
- The study revealed that health care is still far from the required level, due to many factors that have negatively affected the course of its development, the most important of which are the poor response to the needs of individuals, the spread of all forms of corruption, poor management in addition to the absence of a reform vision for the sector.
- The Corona pandemic revealed the deterioration of the infrastructure of public hospital institutions in Algeria, which led to their inability to provide the necessary health protection for those infected with the virus, which explains the high death rate in the country and is issued by the Maghreb countries in this regard. So, through the difficulty of dealing with the pandemic, the latter has contributed to discover the weakness of the Algerian health system; This is what answers the first sub-hypothesis.
- The collapse of the health system in Algeria made it necessary for it to resort to prosthetic solutions to confront the spread of the Corona virus, as it opened the door to national initiatives to support the efforts of the state, and also called for the necessity of donating money and equipment to cover the shortage in order to avoid the disaster, and the authority quickly launched the purchase of medical equipment (Rapid analyzes, masks, respirators) and exceptional funding lines have been opened for the health sector, and the state has also shown some interest in the human resource through some incentive measures such as the exceptional allowance ordered by the President of the Republic for health workers in the first ranks; Thus the second sub-hypothesis is answered.



Conclusion:

If the Corona virus come, so that officials pay attention to the size of the deficiencies that the health sector suffers from, after the state of Algeria has become ready to accept the resort to president, ministers and senior officials for treatment in European hospitals, this new virus has created a historic opportunity to reconsider everything, not in the Health sector alone.

Algeria does not have great state capabilities, but thanks to the efforts of doctors, it overcame this disease, thanks to the faith and the will expressed by doctors and health sector workers, which could form the basis for a health revolution in Algeria, in addition to the solidarity gift of Algerians in these circumstances that it is going through, the country because of the epidemic, which is a new start for Algeria.

Based on this, it can be said that the Corona virus came to rid the Algerian health system of more dangerous viruses, foremost of which are viruses of mediocrity, looting and mismanagement, as it was the cause of treating the diseased health system, getting Algeria out of the large recovery room in which it was found for many decades, and thus the Corona pandemic brought power. The spotlight on the imbalances of the public health system in Algeria, but at the same time it gave hope for change.

Recommendations :

- The necessity of developing a new health system based on the preventive component and the concept of public health more than the therapeutic component that deals with easily predictable cases;
- Work to establish the Algerian Agency for Health Security, which is concerned with researching all diseases and epidemics, not just the Corona virus;
- Benefit from the experiences of medically advanced countries in facing the Corona epidemic;
- The necessity of dealing with the situation in a serious manner by adhering to measures of prevention and social distancing.

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