

PANDEMIC COVID-19: COMPARATIVE STUDY OF SOCIAL AND SCIENTIFIC DEVELOPMENTS BY PUNJAB AND SINDH GOVERNMENTS IN PAKISTAN

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Abstract

Purpose: The study analyzes the growing situation of Covid-19 in Pakistan and highlights the recent scientific and social developments made during this pandemic. The paper highlights the exertions of the government of Pakistan in general and especially the preventing measures taken by the Punjab and Sindh government to fight this pandemic. The paper discusses the emergency preparedness and response to the Covid-19 in Pakistan.

Method: This research uses publicly available data to inspect the current situation of epidemic Covid-19 and its preventive measures in Pakistan, especially in Punjab and Sindh province. Besides, documents on the website of the daily situation report of NIH (National Institute of Health), WHO covid-19 dashboard (services and coordination) Ministry of National Health Regulation, different scholarly articles, and already existing world reports have been reviewed and analyzed

Main Findings: The outbreak of Covid-19 was experienced first time in December 2019 at Wuhan city of China which spread promptly in China and then all-inclusive in 213 other countries including Australia, Asia, Europe, America, and Pakistan as well. Experts believed that in a developing country like Pakistan, its effects would be devastating. It has caused approximately 2, 862, 664 deaths and affected more than 131, 837, 512 people worldwide, while its statistics are growing fast. However, several steps have been adopted to overcome Covid-19 worldwide. Even, drastic measures were taken with limited resources in Pakistan to curb the growing situation of Covid-19 such as lockdown, awareness campaign, quarantine facilities, special hospitals, and laboratories for testing the virus.

Application of the Study: The results of this research help the Pakistani government to make their policies more target-ordinated and systematic to cure this pandemic to restore its vigilance with available resources against Covid-19 and trained human capacities, laboratory networks, policy formulation, and national emergency preparedness.

The originality of the Study: This research contributes that confusion and uncertainty between the policies of the federal government and provinces on lockdown measures could lead the thousands of untimely deaths. Experts believed that in a developing country like Pakistan, its effects would be devastating. Despite its limited resources, Pakistan took a stand against an epidemic coronavirus and made it a single-point agenda by all the provinces of Pakistan.

Keywords: Covid-19, Pandemic, SARS-CoV-2, Preventing Measures, Punjab and Sindh Governmental Policies.

INTRODUCTION

The novel SARS-CoV-2 the virus that causes Covid-19 emerged in Wuhan China in December 2019, and then spread rapidly in more than 213 other countries and territories. According to experts, almost more than fifty million people are affected globally by the Covid-19 in 2020. The world has been shaken by the impacts of the Covid-19. Hence, 131,037 deaths and 1,995,983 cases have been reported worldwide till April 14, 2020 (Gennaro, 2020). Due to which the governments are working in the context of uncertainly and facing challenges about social, economic, health and trade-off. Various countries have taken stringent measures to overcome the spread of Covid-19 at the local level such as stay-at-home orders, shelter in place, and lockdown (Singhal, 2020). By spring 2020, lockdown with drastic measures has been experienced by more than half of the world's population to control the impacts of coronavirus Pakistan is also one of them. China appears to be effectively handling the Covid-19 epidemic, which has imposed an initial travel ban in the country (Waris, 2020). Chinese authorities announced a travel ban nationally as early as January 23, 2020. According to experts, this has averted the threat of more than 700,000 cases of Covid-19 in the country. Since World War II, it is widely recognized now beyond the human tragedy and health of the coronavirus that the pandemic is causing the record solemn economic crisis globally (Noreen, et al, 2020).

The pandemic disease of Covid-19 was renamed by the World Health Organization from the coronavirus disease 2019. The WHO has declared Covid-19 as a pandemic and an emerging global threat that poses multifaceted global challenges to the

nations. However, it was warned by the WHO that the acceleration of the pandemic will increase rapidly. As from the 1st reported case Covid-19 took 67 days to touch the figure of 100,000, 11 days for the 200,000 and four days for the 300,000, and 2 days for the 400,000. According to WHO, there are currently 131, 837,512 confirmed cases including 2,862,664 confirmed deaths around the world with 107,387,937 recoveries.

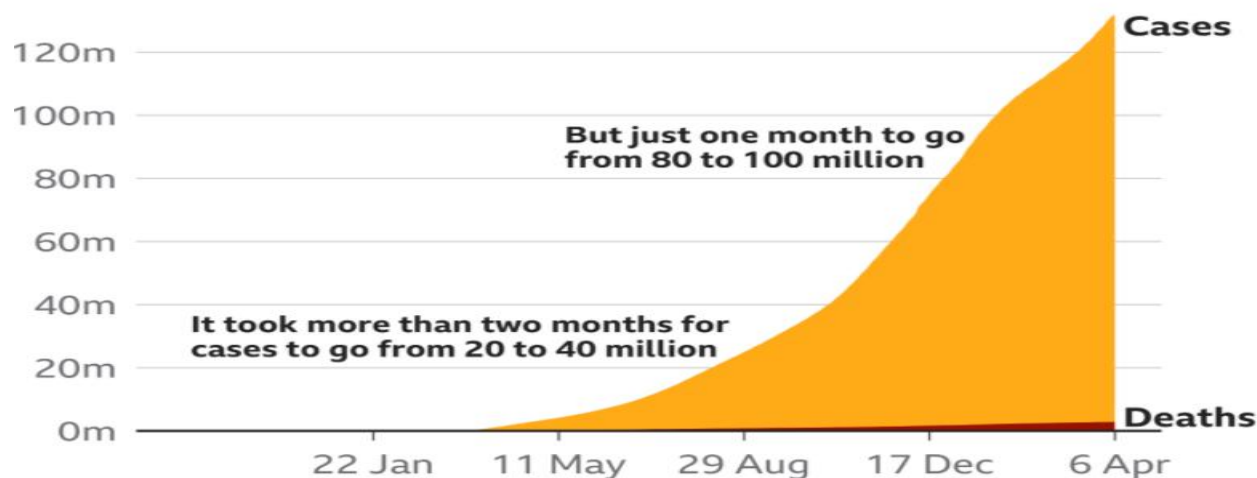


Figure 1: Current Situation of Global Coronavirus Cases

Source: World Health Organization Dashboard

The worst-case scenario has forced several governments to lockdown in other parts of the world. Drastic measures such as shutting down schools, markets, institutions, and borders sealing are taken to overcome the increasing impacts of the virus (Iqbal, 2021). All around the world, Coronavirus is a high-stakes test of health care systems and public health. Initially, WHO prepared a "Strategic Preparedness and Response Plan" with a common goal of preventing the further transfer of COVID-19 (Fisayo & Tsukagoshi, 2020). The plan identifies patients infected with the Covid-19 and then lays them isolate and provides them initial treatment and care to cure the disease (Bukhari, 2020). However, SPRP issued interim guidelines on March 7, 2020, in four different transmission scenarios and divided all countries into four categories e.g. first one is zero cases countries, 2nd is sporadic cases countries, 3rd is clustered cases countries, and 4th community spread countries (Organization, WHO Coronavirus Disease (COVID-19), 2020). Hence, it pledges the world to rout, unite and fight the covid-19 by the WHO. Besides, the WHO has launched a "Global Humanitarian Response Plan" for the weakest countries with 2 billion appeals for laboratory health workers for safety equipment and medical supplies (Saqlain, et al, 2020). Hence this research answers the following research questions:

RQ1: What was the situation in Pakistan initially due to facing a new spreading pandemic Covid-19 in Pakistan?

RQ2: What steps has Pakistan taken to control this disease?

RQ3: Which of the Sindh or Punjab governments did well comparatively to overcome this pandemic?

REVIEW OF LITERATURE

This research uses publicly available data to inspect the current situation of epidemic Covid-19. However, different scholarly articles and already existing world reports have been reviewed to complete this research work. Some of these are mentioned below:

Abid says in this article that Pakistan has been warned by the WHO that it could face a major challenge in the coming days against the spread of the coronavirus. This brief communication is aimed at highlighting the Coronavirus epidemic in the country. In short, it will help emphasize the state-of-the-art situation and Pakistan's health sector initiatives to reduce the risk of communication (Abid, et al, 2020).

Javed, et al stated that the emergence of infectious diseases poses serious problems due to lack of adequate resources especially in developing countries for public health security. The emergence of Covid-2019 in China in late December 2019 led to achieving a high-risk category in a few weeks to the emergence of an international health emergency around the world. He examines the recent outbreak of coronavirus and preventing measures that have been taken by the Pakistani government to shape health care strategies (Javed, et al, 2020).

Ahmad stated in this article that after a terrible outbreak of Covid-19 with its scientific evidence of transmission one to another, governments around the world have tried to prevent it at the source ([Ahmad, 2020](#)).

Ahmed D. T. demonstrated that because Covid-19 was a new thing that was rarely known and because of the widespread global malpractice in the availability of testing equipment and screening. He further stated that these disease spreads rapidly around the world so various governments, health professionals and scientists are working in the world are looking for ways to treat this curse ([Ahmed D. T., January 2021](#)).

Fisayo & Tsukagoshi analyzed in this article that even long-term effects of the Covid-19 epidemic can be difficult to detect. It is in our minds, hearts, our legal protections, and our funding decisions. Yet this virus has entered in everything. This virus cannot be "eradicated" unless it is taken into account in all areas of our lives. But he further stated that we should not ignore this important thing about the third wave, and the future is not predicted as well ([Fisayo & Tsukagoshi, 2020](#)).

Jafri stated in this article that the governments of the world are adopting radical mitigation measures to deal with the health effects of the coronavirus, which is causing severe financial and economic damage on the other hand around the world to the lives of people. Thus, it has become more than just a health crisis with all the political-economic and social consequences. Pakistan, like all countries in the world, is plagued by an epidemic without exception and the numbers of confirmed cases are increasing since February 2020 ([Jafri, 2020](#)).

Nabi stated that when Covid-19 arrived in late February with an epidemic in Pakistan, it was expected that it created a devastating situation country because Pakistan would not be ready to respond. Hence, Pakistan intensified some preventing measures such as the smart lockdown strategy ([Nabi, 2020](#)).

METHODOLOGY

This research uses publicly available data to inspect the current situation of epidemic Covid-19 and its preventive measures in Pakistan, especially in Punjab and Sindh province. Besides, documents on the website of the daily situation report of NIH (National Institute of Health), WHO covid-19 dashboard (services and coordination) Ministry of National Health Regulation, different scholarly articles, and already existing world reports have been reviewed and analyzed.

COVID-19 AND PAKISTAN

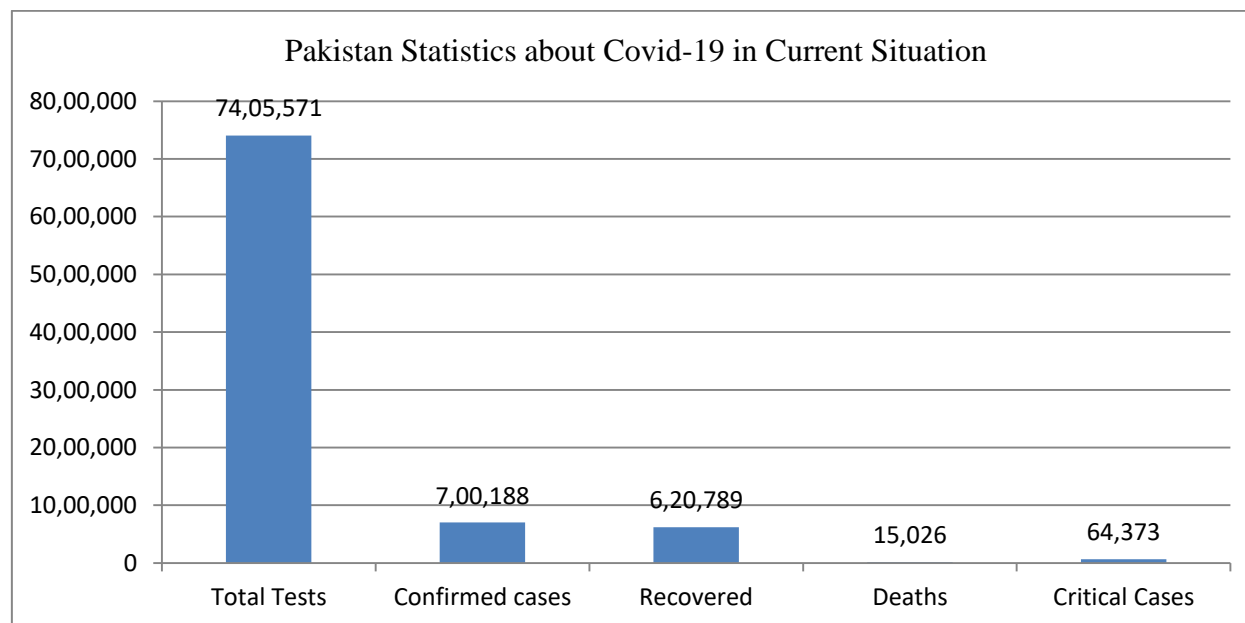
Pakistan shares borders with Iran and China through extensive trade and travel being a close ally. However, the importation of Covid-19 has been facilitated by the increasing influx of passengers from these countries ([Bilgin, et al, 2020](#)). Pakistan received reports of 1st two confirmed cases of Covid-19 among religious pilgrims in Karachi on February 26, 2020. Both these cases were connected to the history of travel in Iran and later to other countries, mainly KSA (Saudi Arabia), Britain, and Italy. One hundred and thirty-five more cases were reported in Punjab and Sindh between clusters of religious pilgrims from Tablighi Jamaat and Iran ([Morales, et al., 2020](#); [Rohner, 2020](#)). Besides, the numbers of Covid-19 confirmed cases have risen to 7,025 till April 17, 2020. Initially, Sindh was the worst affected province by this pandemic, later till April 17, 2020, Punjab was the epicentre with 3276 confirmed cases ([NIH, COVID-19 live dashboard \(Pakistan\): National Institute of Health Islamabad, 2020](#)). As mentioned above, the whole world stagnant by the pandemic Covid-19. So, many countries developed their strategies to overcome this pandemic. Just a few months after the first outbreak in the Chinese city of Wuhan, Pakistan also faced this pandemic. While, being a developing state and with limited resources, the Pakistani government has taken drastic measures scientifically and socially to reduce the impacts of Covid-19 ([OCHA, Pakistan: Covid-19 Situation Report, 2020](#)). These include manufacturing the bio-medical equipment, social distancing strategies, the latest laboratories for virus testing, special quarantines centre, and specially dedicated corona wards and hospitals. Hence, with the rapid increase in daily cases, the situation is quite alarming. So far 149,782 cases have been reported in Punjab, 235,576 in Sindh, 63,615 in KPK, 18,612 in Baluchistan, 40,111 in Islamabad (capital territory), 8,631 in AJK, and 4,884 in Gilgit-Baltistan on January 5, 2021 ([OCHA, 2020](#)). Therefore, due to limited testing capacities in the country, the exact number of confirmed cases may be higher than recorded. Pakistan has recorded on March 17, 2020, its 1st biggest single-day spike with 134 confirmed cases and now taken tally to 184, which raise ineffectiveness concerns about quarantine procedures ([Sarwar, et al, 2020](#)).

IMPLICATIONS TO PREVENT COVID-19 IN PAKISTAN

Being a developing state and with limited resources, Pakistan has taken several drastic measures scientifically and socially to reduce the impacts of Covid-19. These are under the following:

1. Diagnostic Labs: In all over the world the best way to expose Covid-19 is PCR (Polymerase chain reaction). That's why the Pakistan government also acclaims PCR. So, all the private and Government sector labs used the method of PCR to identify Covid-19. The following number of labs working, in Punjab Province 29 labs, Sindh 19 labs, in KPK 14 labs, Baluchistan 05 labs, in federal ICT 12 labs, in AJK 03 labs, in Gilgit-Baltistan 03 labs. Moreover, the defense department of Pakistan established 18 labs. Furthermore, to resolve the dearth of staff, Pakistan starts the training projects for the staff of

the research laboratory and paramedical staff. NDMA commenced more than a hundred expert molecular biology lab technicians ([NIH, 2020](#)).



Graph 1: Detail about Confirmed, Recovered, Death, and Critical Corona Cases

Source: Prepared by author collecting data from different sources

2. Smart Lockdown Strategy: The major apprehension of government is social safety of the people by providing them employment resources, under the current wave of pandemic disease Covid-19. That's why the prime minister of Pakistan addressed the nation on June 13, 2020, and announced a smart lockdown all over the country. Moreover, the prime minister also highlights SOPs and the implementation of SOPs' inaccurate message essence. The Pakistan health minister transitory about the policy, according to him the areas of Pakistan where the outbreak of the virus is rapidly will be sealed to hold or control the spreading of the virus. According to this strategy the lockdown is put based on locality not all around the areas. Pakistan seeming a lesser death rate proportion due to Covid-19 like other South-Asian states, as compared to other European states. These European states have most been infected by this pandemic disease.

3. Quarantine Build-Ups and Hospitals: The Covid-19 is impacted on the health sectors like the labs, hospitals. So to fight the Covid-19 Pakistan government established more hospitals and modernized them for the patients of Coronavirus. These specific hospitals have the facility of isolation. These hospitals are allowed to treat infected people. The government provides Personal Protective Equipment (PPE) for health staff. In these hospitals, the isolation wards facilities were constructed. They build hospitals that are specific for Covid-19 patients at the Provinces & Region number wise are following, KPK 7, Punjab 6, Baluchistan 10, Sindh 4, Islamabad 1, AJK 3, and Gilgit Baltistan 4. In isolation wards the total number of beds 23,557 in the country. The distribution of beds at province and Regional Covid-19 hospitals are following, in province Khyber Pakhtunkhwa 2,760 beds, in Punjab province 10,948 beds, in province Baluchistan 5,897 beds, in Sindh province 2,100 beds, in Islamabad region 350 beds, in Azad Jammu & Kashmir 530 and Gilgit Baltistan 972 beds available. The government also established quarantine to control the spreading of the virus around the country ([Report T. H., 2020](#)). The places selected to set up a quarantine in the Islamabad region are two. In the province of Baluchistan 10 quarantine is working. In Khyber-Pakhtunkhwa 52 quarantine is working, in Punjab province, 06 quarantines are working, Sindh province 02 quarantine is working. While in many areas of, Gilgit Baltistan 63 and Azad Jammu & Kashmir 04 isolation region are working ([Services, 2020](#)).

4. Scientific Achievements: During the Covid-19 pandemic outbreak, to overcome the current disaster of Medical Emergency the government is made numerous innovations all over the world ([Abid, et al, 2020](#)). In the same way the all public and private sectors of Pakistan are trying to start new ways to diminish the effects of coronavirus. During the pandemic of Covid-19, the different sectors of life have been made the following developments:

- **Bio-Medical Engineering Advancements:** During the pandemic of the Covid-19, Pakistan performed excellent work in the manufacturing of Bio-medical equipment, and prepared numerous pieces of equipment for the Covid-19 (Organization, 2020).

- **Testing Kits of Covid-19:** Federal Minister for Science and Technology Fawad Hussain announced that the Scientists of the National University of Science & Technology (NUST) developed coronavirus detection kits that are approved by the Drug Regulatory Authority of Pakistan. These kits are established by the cooperation of Columbia University of America, Wuhan Institute of Virology China, DZIF Germany, and AFIC Rawalpindi ([Anser, et al., 2020](#)). These kits have a low cost. Besides, its testing capacity is also higher than other imported kits.
- **Ventilators Productions:** The critical patients in Covid-19 required putting on ventilators. Hence, for the respiration of the patient artificially ventilators are very important. Pakistan imports ventilators from abroad before this pandemic. But where Covid-19 patient number is increasing, to meet the needs of the Health Sector Pakistan start to produce it locally. In Haripur district, the National Radio & Telecommunication Corporation (NRTC) is set up that manufacturing it. PM Imran Khan named the first batch "Safevent SP100" in the inauguration and handed it over to NDMA. The Government considers it a revolutionary achievement in the field of Biomedical equipment manufacturing in Pakistan. These locally made ventilators reduce the price of import well as easy availability in government Hospitals in Pakistan.
- **Disinfectant Hand Sanitizer and Chemicals Production:** In this pandemic of Covid-19, to hold the extent of Covid-19 the world health organization (WHO) issued the guidelines time in time. According to the WHO, it is much important to disinfectant the polluted or contaminated areas in Hospitals and homes as well as other public places or Covid-19 Hotspots by sanitizer. Now Pakistan is fully skilled in manufacturing world-class disinfectant chemicals. The WHO approved hand sanitizer. Amongst the precautions to avoid Covid-19 is the regular disinfection of hands, it helps to stop the spread of novel Coronavirus. But the millions of Pakistanis safety are in danger due to the availability of uncertified hand sanitizers with doubtful efficiency in the market across the country. NUST efforts for society by investigation and improvement of the high quality and low-cost hand sanitizer, to overcome the problems & challenges faced by Pakistanis. NUST has made Hand Sanitizer Gel locally by Alcohol. The manufacturing companies of hand sanitizer execute the World Health Organization's Procedures 2020. That declares the antiseptics have a high proportion of alcohol can only provide protection from the germs and against Covid-19. This is capable of microbial control it is named N-Safe Hand Sanitizer Gel by the institute of Pakistan Council of Scientific & Industrial Research (PCSIR).
- **Personal Protective Equipment (PPE):** Moreover to meet the needs of the Public Health sector Pakistan has become self-sufficient to produced PPEs locally. Because to control the spread of COVID-19, one of the most important and necessary things is the safety of Doctors and paramedical staff. Pakistan imports these items from China as well as other countries at a high cost before local manufacturing. Now Pakistan is capable to exports PPEs. Lately, the government permitted to exports the PPEs to overseas, although some companies in Pakistan applied for EU, US, and FDA certification as well.

SITUATION: COVID-19 IN PUNJAB PROVINCE

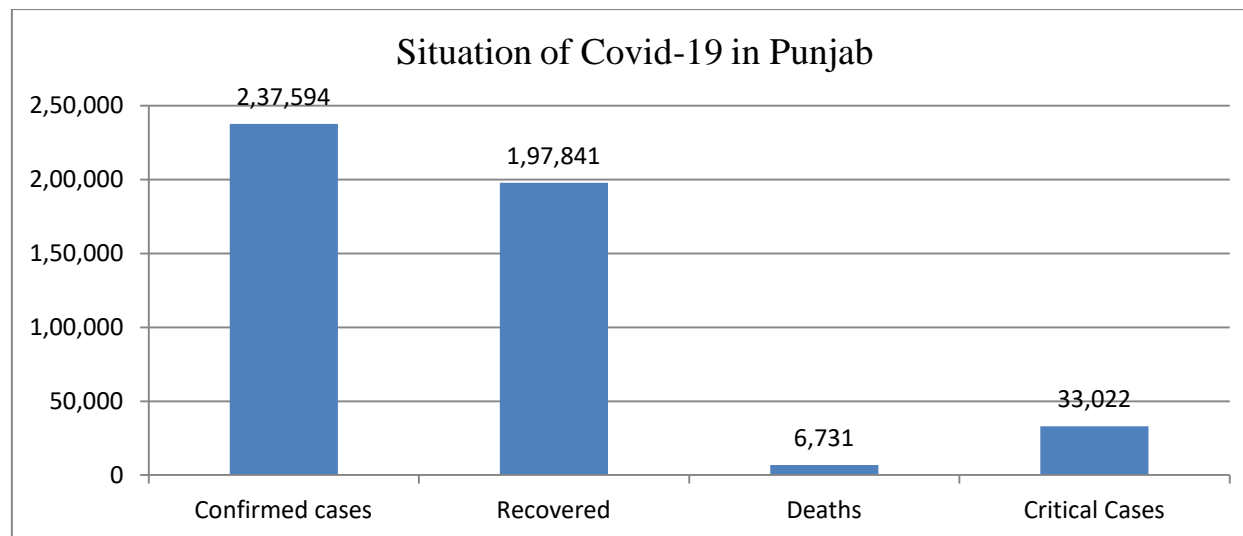
The Punjab government remained successful to eradicate the pandemic Covid-19 by adopting several stringent actions such as the closure of all public places including shrines, educational institutions, restaurants, shopping plazas, and markets ([Ahmad, 2020](#)). The government declared an emergency in a cabinet meeting on March 12, 2020, and the first set up quarantine facility was established in district Dera Ghazi Khan for the returning from Iran religious pilgrims. The government decided to shut down the public gathering places, markets, and shopping malls for 2 days till March 24, 2020. It was urged to the public by Usman Buzdar CM of Punjab to unnecessary travel, practice social distancing, and especially stay at home. Hence, it was reported by the local media that in Lahore many residents had miscarried to implement the measures and justified their right to gather in large on several public places open businesses and gather in several numbers on public grounds including shopping places and wedding ceremonies. Due to which the city administration and local police had to evacuate them. However, a 14 days lockdown was announced by the CM of Punjab on March 23, 2020, from 24 to 6th April 2020. As a result, all public places, shopping places, and markets were closed and pillion riders were banned. It was also stated by the CM that 1000 bed hospitals would be set up in Lahore while the next day on March 23, five more hospitals were designated for the patients of Covid-19 across the province. Besides, the local government, rescue, and relief services began disinfecting cities and citizens, public bus services were suspended temporarily to sterilize all stations and buses. The formation of the "Corona Relief Tiger Force" was also announced by the prime minister, which was aimed to make sure that no citizen will sleep hungry during the lockdown. "The Secretary Home Department of Punjab," wrote a letter to the Ministry of Interior and requesting the help of the army under Article 245 ([Ahmed D. T., January 2021](#)).

However, a large amount of antiseptic wet tissues, disinfectants, hand sanitizers, face masks, and Covid-19 protection kits are manufactured for the public. Therefore, more than 150 pilgrims quarantined at a center (50 double beds and 339 single beds) in Faisalabad when they arrived from Iran through the Taftan border. Moreover, 450 pilgrims who were arrived through Pansera Interchange are quarantined in the center of Agriculture University Paras Campus. Besides, the largest quarantine center was established in Multan with 3000 rooms, 50 beds containing hospital was also established ([Sheikh, 2020](#)). It was decided by the Punjab government to shut down the regional motorways all over the province except for

private vehicles. Furthermore, the training of quarantine staff and high dependency unit was initiated by the "National Institute of Health" across the province.

The CM of Punjab announced 10 billion financial supports to 2.5 million families so each family was entitled to the financial aid of 4,000 except the BISP. Moreover, it was executed by the "Punjab Infectious Diseases Prevention and Control Ordinance 2020" and to permit the implementations of governmental measures of health department and civil administration under the cover of law with complete ease. Even it was announced that the Punjab government would deliver one month's extra salary to all health care workers (Abid, et al, 2020). Furthermore, the "Insaaf Imdaad Programme" was launched to assist the affected pandemic poor communities and the daily wagers by the CM Punjab on 1st April 2020. Besides, almost more than 870 billion zakat funds were also issued to assist about 170,000 families in Punjab (UNFPA, 2020). The Punjab government released more than 620 million funds for the formation of 8 new diagnostic labs to expedite the covid-19 testing process at the divisional level and also completed a 1,000-bed field hospital at the Lahore expo center. Regular prayers at places of worship were also suspended to prevent the spread of this pandemic (Abid, et al, 2020). As a result of these measures the public has been disciplined with the realization that due to some kind of negligence, they may be infected with the covid-19, so, they have been instructed to follow all the SOPs (Ahmed, 2020).

During the 2nd wave of the pandemic, free screening was announced by the government of Punjab across the province for the students of government medical institutions, to access the burden of the infection. Meanwhile, due to the surge in the cases of the pandemic, the police were deputed to restrict the public movement. Hence, to ensure the strict enforcement of the smart lockdown, police deployed more than 1,000 personnel to block large-scale evacuations and block major roads. Besides, 774 areas of Punjab are working with a smart lockdown currently. However, Punjab was in the midst of its second wave, which demanded that people should keep themselves in the discipline (Jafri, 2020). Therefore, the Punjab government called for strict monitoring of public gatherings such as shrines, shopping plazas, marriage halls, and restaurants. Recently, the cabinet committee on coronavirus decided that over the age of 55 government employees will work from home and stop coming to the offices. "Corona Heroes Wall" was also unveiled by the governor of Punjab to recompense tribute to those who were on the front line and laid their lives to overcome the covid-19 in Punjab. Currently, Punjab is suffering 237,594 confirmed cases statistically, crossing the highest position in all other provinces in Pakistan.



Graph 2: Critical Corona Situation in Punjab Province

Source: prepared by author collecting data from different sources

Hence, more than 225 hospitals of Punjab are providing ample facilities to cure the patients of covid-19. Besides, 8,261 beds have been reserved for the patients including 2,179 oxygenated beds. Across the province, 665 ventilators have been reserved for the pandemic patients (Report W., 2020). However, the government of Punjab must gross all probable precautionary measures to control and prevent this pandemic. The government urged the people to save themselves from the infection through preventive measures and asked them to call the helpline 1033 immediately in case of symptoms appearing (Nabi, 2020).

SITUATION: COVID-19 IN SINDH PROVINCE

The Sindh government acted timely and took essential steps to prevent and combat the spread of Covid-19 vigorously under the administration of CM Murad Ali Shah. At the same time, it launched and continued the public awareness campaign to

educate the masses about ways to avoid the pandemic Covid-19 ([Hundreds of children in Pakistan's Sindh infected with COVID-19, 2020](#)). The government completely banned the movement of the people through lockdown according to the advice of the health experts from day one. Sindh chief minister Syed Murad Ali Shah took a protective strategy when the federal government was still silent and mulling over its approach, and imposed a complete lockdown within his province. He presented himself as a much vigorous provincial head by this act. The provincial government of Sindh was concise, comprehensive, and clear in its strategy and it grabbed several daring and bold steps which helped in reducing the spread of covid-19 in the province since the initial increase in the number of patients. Therefore, Sindh established the world's largest "Coronavirus Emergency Care and Cure Centre" in March with isolation wards at the Labour Colony flats (Sukkar). Besides, WHO-approved health desks were set up for screening all passengers who were flying into the country at Jinnah International Airport Karachi. The provincial government set up the country's first drive-through coronavirus testing facility in Karachi. The "Corona Ordinance" was also approved by the Sindh Cabinet to relieve economically worst affected people of the virus. Besides, without any support from the federal government and limited resources, several relief packages have been given to the people of Sindh including reduction in house rents, 20% reduction in school fees, and ensured for the private sectors do not terminate or sack their employees and make sure they are being paid. WAPDA was also directed to reduce electricity bills ([Chandir, et al, 2020](#)).

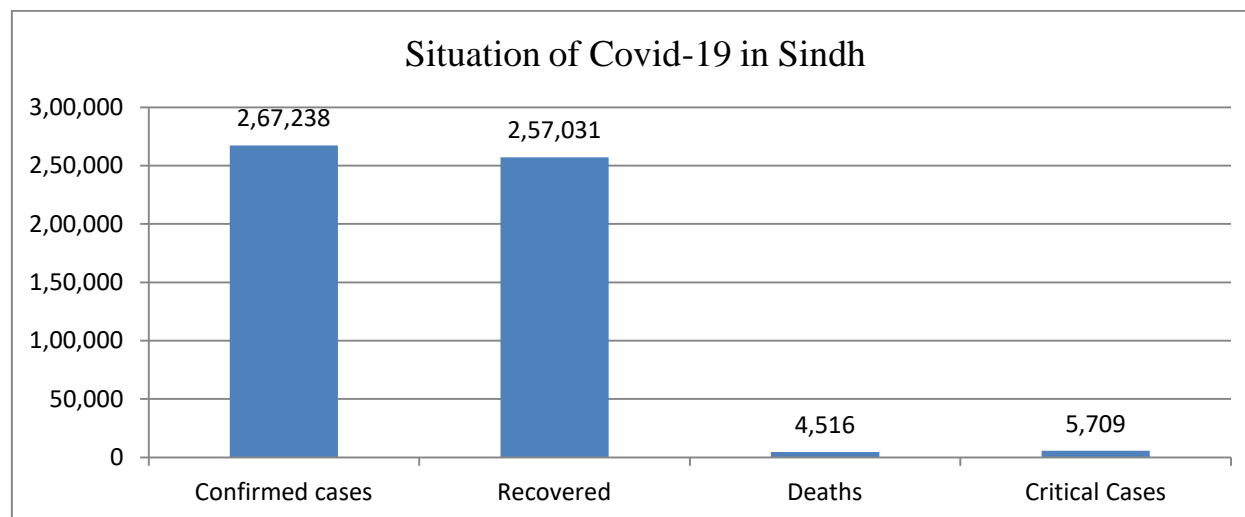
The provincial government of Sindh deserves commendation for the tough and hard decisions which it has taken to tackle the Covid-19 beyond the partnership. Hence, a provincial government can do a lot on its own, particularly in case the federal government is vague on its approaches to combat the Covid-19. But the lack of uniform joint policy and lack of clarity from the federal government had affected all provinces' ability to counter the pandemic. But from the earliest days of the pandemic, the Sindh government remained decisive and vocal on strict lockdown actions which were opposed by the federal government. The Sindh government also utilized its funds to ensure the protection and safety of the people of its province and took several steps before the federal government and provinces. It had decided to impose medical emergency for corona patients to provide them free test services across the province, isolation wards were also maintained for them. At the same time, it is also directed to the concerned officials by the CM Sindh to activate the new contradictory hospitals immediately in all the districts of the province, to effectively control the spread of the pandemic. Simultaneously, worth more than Rs100000 antiseptic soaps were purchased and distributed among the people for the purpose to raise awareness about hygienic and health.

The provincial government announced lockdown and ordered the closure of restaurants, marriage halls, markets, and other public places including educational institutions, gyms, swimming pools, and shrines, to preclude people to people diffusion of the pandemic. Therefore, to curb the growing poverty as a result of the lockdown, the government also announced the distribution of rations to deserving people. It had established the quarantine facility for the new arrivals outside at Karachi airport. Besides, an 18 member "Rapid Response Team" was also formed to prepare against Covid-19 from the Jinnah Postgraduate Medical College". A task force was constituted by the Sindh government to chalk out the strategy to counter the feast of covid-19, which meets to review coronavirus-related issues on daily basis and took certain decisions to curb its consequences. It has been directed to collect the records of the patients from all hospitals of the province who are showing pneumonia symptoms so that more medical research can be done to counter the spread of this pandemic ([Chandir, et al, 2020](#)). The provincial government has imported 10 thousand coronavirus testing kits under an arrangement with Indus hospital. Besides, each passenger who arrived at the airport in Karachi has been screened. In case of symptoms has found in anyone, they are tested by a second team which depending on strictness tested/quarantined ([Chaudhry, et al., 2020](#)). The CM of Sindh with his team deserves appreciation rightfully for taking hard decisions to curb the pandemic. Hence, it can be rightly said that a provincial government on its own can do a lot for the betterment of its people and the Sindh government did the same ([GOP, 2020](#)).

COMPARATIVE ANALYSIS

All over the world, the governments are working within the context of radical vagueness and uncertainty about Covid-19, with high-level heterogeneous local and regional impacts. There is no doubt that the pandemic Covid-19 has exacerbated various aspects including severe financial, social, and economic crises and it has profounded various drastic effects on all of them. But the governments are taking all possible steps to avoid its devastating effects. However, the first case in Pakistan took place in Karachi on February 26, while only 15 days after the first case, positive cases of Covid-19 have been reported up to 20 in Gilgit Baltistan ([Akhter, 2020](#)). Surprisingly, the similarities in all these positive cases were that they had all recently traveled to Iran and Syria. This further increased the number steadily around the province and later to all the provinces. Ten days later, the Sindh government announced 15 days complete lockdown across the province, and a partial lockdown was also imposed in Punjab from March 24, 2020. Therefore, both provincial governments draw very quick steps to tackle the situation in the spread of Covid-19. The concerned civil and military departments were on high alert. The primary concern of both provincial governments is to balance public health needs and economic weakness with the strain of the pandemic. It was reported that in the Sindh province more than 900 children had tested positive on May 29, 2020, and

they were all under the age of 10. However, 2,636 new positive cases were also reported on the same day. Besides, within 24 hours, the total confirmed cases reached the figure of 64,028 with 57 casualties ([Javed, et al, 2020](#); [Jawed, 2020](#)).



Graph 3: Critical Corona Situation in Sindh Province

Source: prepared by author collecting data from different sources

Initially, Sindh was the most vulnerable affected province with 25,309 active cases, and Punjab was 2nd in number with 22,964 confirmed cases. Hence, the number of pandemics confirmed cases increased to 132,405 in Pakistan from the starting few days of June with 88 casualties. In June 2020 Punjab was the most vulnerable and affected province with 52,601 and the Sindh province followed by 51,518 cases ([Jamal, 2020](#)). However, Rs70 billion was allocated by the government of Pakistan to counter the impacts of Covid-19. The federal government has sealed off 1300 virus hotspots (844 in Punjab, 414 in KPK, 12 in AJK, 7 in Sindh, and 5 in Gilgit Baltistan) across the country to control and prevent the spread of Covid-19. PM Imran Khan chaired the meeting "National Command and Control Centre (NCOC)" on June 22, 2020, and implemented the strategy of smart lockdown 549 virus hotspots of the country ([Abid, et al, 2020](#)). This was the initial situation; now take a profound look at the affected population by the pandemic since October 28, 2020, when the 2nd spell of the Covid-19 was announced by the government in Pakistan and the daily increase of the pandemic active cases reached the figure of 750, up from 400 to 500 previous few weeks. According to NCOC, the positivity ratio in Punjab province is 4.16per cent and the Sindh 7.23per cent on January 5, 2021, while currently Punjab facing a devastating position with 237,594 confirmed cases and Sindh with 267,238 confirmed patients of Covid-19 in Pakistan till 6th April 2021.

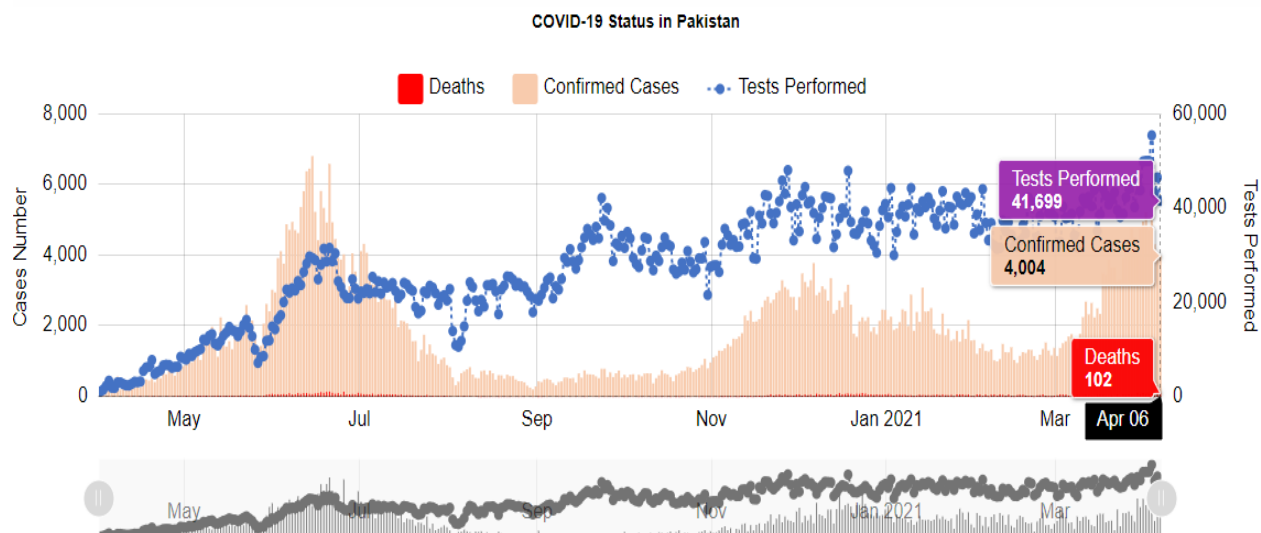


Figure 2: Current Status of Covid-19 in Pakistan

Source: Health Advisory Platform by Government of Pakistan

Pakistan's mortality rate is 2.12% against 2.17% worldwide. Hence, the number of confirmed cases of Covid-19 surged the figure of 700,188 till April 6, 2021 with 64,373 active cases while the death level reached 15,026 across the country in Pakistan. Besides, 307 ventilators are in use, 44pc of them 32pc of them in Peshawar, 35pc in Lahore, 42pc in Multan, and 44pc in Islamabad. However, oxygen beds surged the figure with 58pc use in Peshawar, 32pc in Multan, 33pc in Karachi, 35pc in Islamabad. As of January 5, 2021, confirmed positive cases are 490,476 with the rise of total tests 7,405,571 in last 24 hours, critical cases are 64,373 and deaths are 15,026 while recoveries have 620,789.

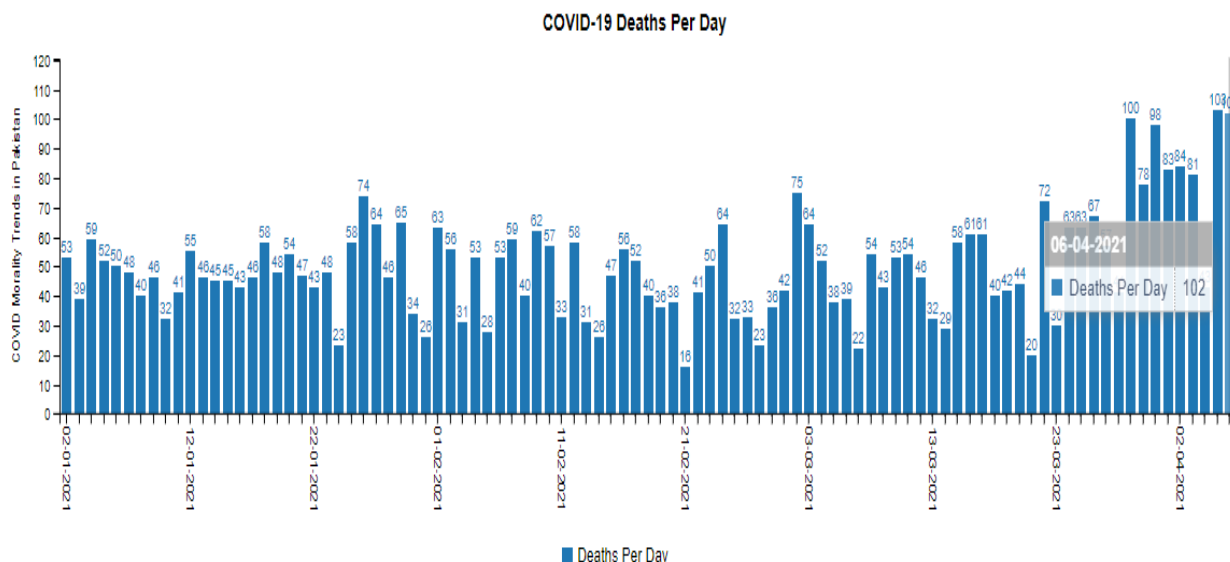


Figure 3: Current Deaths rate per day of Covid-19 in Pakistan

Source: Health Advisory Platform by Government of Pakistan

CONCLUSION

Since March, the world has been in a lockdown mode due to a global pandemic Covid-19 and facing a terrible challenge to curb its outbreak globally health care systems are also under stress. Virtually the Sindh government led the federation and provinces in the campaign to tackle the pandemic Covid-19. The Sindh Chief Minister declared an emergency and took the lead in every aspect to overcome the epidemic Covid-19, even other provinces also have no option but to act on it. Hence, one reason behind this hyper engagement of the Sindh government is that the first case of coronavirus was found in Sindh. A crisis can't be deterred until everyone deeds responsibility. Generally, authorities are lethargic and lax, even when the crisis seeps into their doorsteps and gripped their areas. But the Sindh government's action was completely different and it took immediate steps instead of wailing and shouting over the lack of resources. Initially, the federal government was reluctant to implement measures such as a lockdown. In this situation, the doctors of Sindh, Punjab, and KPK appealed to the federal and provincial governments to reconsider their verdicts and imposition of strict restrictions to curb the spread of the virus. According to the experts it is stated that confusion and uncertainty between the policies of the federal government and provinces on lockdown measures could lead the thousands of untimely deaths. On the other side, even that cannot be denied that the exertion of the Punjab government to control and prevent the wave of the pandemic is not just empty and rhetoric claims but tangible. It took several stringent actions to prevent a pandemic. Experts believed that in a developing country like Pakistan, its effects would be devastating. Despite its limited resources, Pakistan took a stand against an epidemic coronavirus and made it a single-point agenda by all the provinces of Pakistan. However, governments can't stop the spread of Covid-19 without sensitive public cooperation. Pakistan was just like a sandwich between two main centers of pandemic China and Iran, with the exclusive challenge of border insecurity, and weak health infrastructure. But despite being a developing country, Pakistan restored its vigilance with available resources against Covid-19 and trained human capacities, laboratory networks, policy formulation, and national emergency preparedness. However, this is not enough, but much more needs to be done to get rid of the coronavirus. There is a need to initiate an inclusive awareness crusade on social media among the general public about the significance of wearing masks, washing hands, and social distancing which will improve their behavior and enhance their knowledge. The lockdown should be stricter to decrease the number of cases. Besides, more tests are needed to determine the actual number of cases. More ventilators, PPE, and masks are also required instantly. Corona specialized hospitals and quarantine centers should be maintained and well established to advance the process of treatment. Hence, every possible step should be done to streamline the system.

LIMITATIONS OF THE STUDY

This research is fundamentally limited to the analysis of the Punjab and Sindh Province policies and Implications to prevent or cure the contemporary situation of Covid-19 in Pakistan and the identification of factors that support or hinder the Government of Pakistan to achieve their basic goals to uproot this anxious disease. The research has the probable to recommend workable suggestions for curing the growing situation of Covid-19 through more social and scientific type developments.

IMPLICATIONS OF THE STUDY

This research will help to explore the new ideas and policies to uproot the pandemic disease of Covid-19 and provides the exertions of the government of Pakistan especially the preventing measures of Punjab and Sindh governments to fight this noxious pneumonia.

AUTHORS CONTRIBUTION

Sidra Akram: wrote the paper and analyzed the data.

Mian Muhammad Azhar: devised the main idea and research design.

Abdul Basit: Edited the manuscript.

Muhammad Ikram-ul-Haq: contributing to data collection and edited the graphs.

Muhammad Waris: Proofreading.

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