

Commentary

Protective and preventive measures to control COVID-19 in Pakistan healthcare prospective

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ABSTRACT

COVID-19, which first appeared in the December of 2019, has claimed over two million deaths to this day and the number continues to grow daily. Some countries have managed to successfully curb the threat whereas others continue to struggle. It is vital that we look at the measures taken by these countries that others can also implement those models and overcome this pandemic successfully. Amongst the countries which were successful in keeping in check the spread of the virus and the deaths caused is Pakistan. This paper explores the preventive measures taken by Pakistan at each stage of this pandemic, by taking the efficacy of each measure by its effect on the number of active patients, number of recovered patients and the death. Primarily, the government owing to the financial instability of the population couldn't implement robust lockdowns and travel bans, which resulted in the spread of the virus. As the time progressed, novel strategies were introduced which posed to be more successful in containing the spread. One of the strategies was the implementation of a smart lockdown based on successful implementation of a 'track and trace' strategy. Furthermore, 'lockdown vs. livelihood' calculation, intra-city travel bans, procuring foreign aid, provision of medicinal supplies and incorporation of media helped Pakistan limit the spread of the virus. These models can also be incorporated in other countries facing the virus, resulting in decreased number of active patients and deaths. These strategies might help the world overcome this pandemic.

Keywords: COVID-19, Pakistan, Smart lockdown, Lockdown vs livelihood, Track and trace, Healthcare

INTRODUCTION

COVID-19 took the world by storm, when it first appeared in the wet market of Wuhan district in China (Second, Woodward and Mosher, 2020).¹ According to Jiang et al in December 2019 this novel corona virus was initially named 2019-nCoV by World Health Organization (WHO) and has been declared as pandemic. On February 11, 2020, WHO renamed the disease as corona virus disease 2019 (COVID-19) and it is an

emerging infectious disease of global public health concern.^{2,3} This new virus seemed to be very contagious and quickly spread globally.

This virus belongs to the family of RNA enveloped viruses and zoonotic in nature that originates and thrives in the animals, and it causes disease to humans once transmitted. Till now, seven types of corona viruses are known to cause disease in humans and COVID-19 is the most contagious among them. According to the recent reports of WHO, the symptoms of corona virus are

respiratory in nature with cough, fever, shortness of breath, and in severe cases, fatal pneumonia can occur.

The first known case of COVID-19 was detected in China that was informed as case of pneumonia of unknown etymology in city of Wuhan, Hubei province, China.⁴ According to the official Chinese health reports, the first case emerged in November 2019, but was not recognized at the time. From this date onwards, one to five new cases were seen each day.

Dr. Zhang Jixian, from Hubei Provincial Hospital of Integrated Chinese and Western Medicine, told Chinese health authorities that the disease was caused by a novel corona virus. The Chinese government shut down the wet market in Wuhan, curtailed all public and private transport into and out of Wuhan city, and quarantined the central city of about 11 million people.

On 30th January 2020, COVID-19 was not declaring as a pandemic but the World Health Organization, had declared it a 'public health emergency of international concern'. Moreover, no travel or trade bans were recommended by the WHO experts.

However, on 11th March 2020, the World Health Organization, declared corona virus a 'pandemic', acknowledging that COVID-19 had spread across the globe, with 112 countries reporting cases with total cases were 126 135 and 3.67% of death rate.⁵ The director-general of WHO, Dr. Tedros Adhanom Ghebreyesus stated that this is a 'crisis that will touch every sector'.

EFFORTS FOR COVID-19 IN PAKISTAN

After the outbreak of corona virus in China, Pakistan took measures to prevent the local spread of disease in accordance with the WHO guidelines. WHO supported the Ministry of Health of Pakistan in strengthening surveillance at the entry points of the country, providing technical guidance as how to conduct test samples, monitor for sick people, prevention and control of infection in health centres, and educate the public about the precautionary measures.⁶

Initially, during early February, only four hospitals were equipped with specialized medical supplies in anticipation of the virus. The specialized equipment included thermo guns, gowns, masks etc. Moreover, isolation wards were also set up as quarantine facilities for the suspected cases. These initial efforts were to be strengthened in the coming weeks in preparation of the virus.

The first confirmed case of corona virus was seen on the 26th of February, in Karachi. The healthcare authorities responded efficiently and quickly isolated this patient. Thereafter, his family was also placed in quarantine, and his contacts were traced.

The first death case reported in the region of KPK, among the pilgrims who returned from Saudi Arabia on March 9 and held a feast of nearly 2000 people in celebration.⁷ Despite the warnings of the healthcare provider, this patient travelled to return to his village, and did not practice social isolation. His entire village went under quarantine.

On 17th March, the prime minister of the Pakistan gave his initial remarks while addressing the situation. His first stance was not to impose a lock-down as it would endanger the lower socio-economic class and the daily wage earners. However, owing to the gravity of the situation, provincial governments decided to implement a less strict form of lock down, and urged the people to practice social distancing.

The government also implemented complete ban on intra-city and inter-district travels. Public and private gatherings were discouraged. The provincial governments also decided to close certain out-patient departments in hospitals in an effort to stop the transmission of COVID-19.⁸ Only hospital emergencies are operative.⁹ In hospitals, a committee is set up to deal with COVID-19 cases, comprising of doctors and paramedical staff.

The government is also working to procure more PPEs for their frontline healthcare workers. The Chinese government has provided \$4 million to build a hospital solely for COVID-19 patients. Moreover, the latter has also provided Pakistan with 300,000 masks, ventilators, 10,000 units of PPE, as well as 12,000 testing kits. This is in addition to the donations from private means from China. China is constantly sending medical supplies, masks, testing kits and other material to Pakistan, as the total number of confirmed cases cross 1400.

Despite the incoming help from the neighbouring country, healthcare specialists are worried. According to Dr. Shamail Daud, a healthcare management specialist, the healthcare in Pakistan is much disintegrated. The quality and quantity of healthcare in Pakistan is not enough to deal with the high number of critical care patients i.e., an outcome of COVID-19.¹⁰

The first phase of establishing a 1000-bed field hospital is complete, and 300 beds are set up, with the remaining work to be completed soon. The hospital would cater to COVID-19 positive patients in case space runs out in other hospitals. Additionally, the Governor of Punjab, Chaudhary Sarwar has requested a Chinese University to help convert the Government University of the Punjab, into a make-shift hospital. A delegation of the Chinese University is set to arrive soon on site to finalize the plan.

The primary reservations of the government officials about the lockdown were economic toll the lockdown would take on the working class and the daily wage earner. For this reason, the Prime Minister approved a relief package worth Rs 1.2 trillion. The lockdown

initiated on 24th March to contain the rising cases of COVID-19 was extended till 14th April, due to the rising death tally. The announcement was made by Asad Umar, the Federal Minister for Planning and Development in a meeting of the NCOC - National Coordination Committee.

In preparation for the advent of the holy month of Ramadan, the government decided to allow mosques to remain operational after a meeting with the top clerics. However, the government issues a 20 points agenda that all mosques and attendees had to follow as a precautionary measure to prevent the outbreak.¹¹

Additionally, the government decided to incorporate the 'track and trace' system with the help of the intelligence and military services to switch to targeted restrictions. This system used mobile phone data to detect if someone moved out of the defined quarantine area.

The army helped in every step of the way; military's medics were deployed to aid the civilians during the covid-19 response, and their five testing labs worked with the National Institute of Health to improve the testing capacity.

By a 'lockdown vs. livelihood' calculation of the government, the lockdown was lifted by 9th May, which incidentally coincided with a steep rise in the Covid patients. Despite the rising curve and the opposition of the ease of lockdown by doctors, the government decided to end the lockdown in fear of the economic losses. By end of May, the projected patient load was around 120,000 to 150,000, with 40,000 to 50,000 according to top pandemic specialists Dr. Tahir Shamsi and Dr Saeed Akhter.

What was more worrisome was the spread of infection in more than 500 healthcare workers. The Pakistan Medical Association advised the government to extend the lockdown in the face of rising cases and worsening situation. Towards the end of May, the confirmed cases had risen to 56,349, with a death rate of 2.07%, and a death toll of over 1000. Of the cases tested positive 78 percent were men and 22 percent were women.

In many hospitals, the intensive care units and the emergency units were stretched to capacity. Medics in the major cities like Lahore, Karachi and Peshawar reported of severe shortage of beds, and turning away serious patients who needed help. Doctors feared the continuous rise of critical patients, while the government insisted the availability of large number of beds available elsewhere. Compounding the seriousness of disease were the conspiracy theories and mistrust that prevailed regarding covid-19 in the general public.¹²

By early June, Pakistan had surpassed China in the total number of COVID-19 cases, with a total of more than 85,246 patients, and more than 1170 deaths. Following

this development, the government decided to seal specific areas that were most affected, in a 'smart lockdown' program. In Islamabad alone, there were 32 localities that were sealed in a bid to stop the transmission of virus.

The smart lockdown strategy helped to bring a decline from 6800 cases per day in mid-June to 1209 cases per day by July. According to data from the Imperial College of London, Pakistan achieved a rate of 0.73 and getting a rating below 1 is considered best for anti-COVID efforts. The world widely lauded the effectiveness of the 'smart lockdown' strategy taken by Pakistan to avert the dangers of COVID while protecting the daily wagers from the aftermath of a complete shutdown.

By 1st July, according to a situation report conducted by WHO, out of 1,305,510 lab tests had been conducted out of which, 213,470 had been positive. Furthermore, 100,802 patients had successfully recovered while 4,395 had lost their lives. The case fatality rate (CFR) was calculated to be 2.05 percent.

At this point the primary concern of the government was to educate the masses, as to how they can stop the speed of the virus and keep themselves and others safe. Eid-ul-Azha, one of the major festivals was approaching, and if the population had ignored the repercussions of the growing virus, the results would have been unfathomable. Government in collaboration with UNICEF, UNILEVER and other partners, decided to take on this mission. Airing of a 50-minute weekly radio programme was initiated in the first week of July. The primary objective of this programme was to educate the public on social distancing, facemask use, staying home if tested positive, increasing risk perception and hand washing.

By mid-August, the impact of these campaigns could be seen clearly. Globally 810,000 deaths had been recorded with 23 million positive cases whereas the number of patients in Pakistan had remained low with around 292,000 infections and 6,200 deaths. Pakistan: COVID-19 - Situation Report reported that while the world recorded more than 4 million infections and over 200,000 deaths in the past three weeks, Pakistan contributed around 12,000 cases and less than 250 deaths to that tally.¹³

The low number of patients persisted and on 7th September, Shafqat Mehmood, the education minister, announced reopening of 300,000 schools, colleges and universities in phases.¹⁴ This was a major milestone for Pakistan. The education institutions had been closed since mid-March. The reopening gave hope to the public and the promise of normalcy if they continued to strictly adhere to the SOPs issued by the government. The reopening of educational institute was done in phases, which allowed the government to closely monitor and control the surges.

Although the government had successfully curbed the first wave, but the signs of the second wave could already be seen.¹⁵ As fall approached, the influenza season also started, a marginal increase in daily new cases could be observed. With the overall decrease in cases, the general public had also started to negate the SOPs such as social distancing and wearing masks.

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