

How a Small City in India, Chandigarh, Controlled the COVID-19 Pandemic: Strategies Used and Lessons to be Learned

DOI: 10.52629/jamsa.v10i1.191

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Abstract:

With the current COVID-19 pandemic sweeping across the globe, thousands have succumbed to the virus. Countries across the

globe are desperately trying to take appropriate measures to prevent the spread of the coronavirus and to keep their population safe and healthy. While the predilection remains for older individuals, in countries where access to medical care is shorthanded, containing the virus is the best strategy. As many states and cities across the world grapple to combat the pandemic, this commentary focuses on the effective strategies implemented by one such city in India, Chandigarh, in an effort to control the COVID-19 pandemic. By implementing strict curfews, social distancing and preventative measures, Chandigarh has effectively contained the COVID-19 pandemic. As a result of all these measures, the current COVID-19 confirmed case rate in Chandigarh is 4155, 16 weeks after the first reported case. This article seeks to outline the strategies and methods implemented by Chandigarh in controlling the COVID-19 infection rate.

Key Words: COVID-19, Chandigarh, India, control, lockdown

Introduction:

The COVID-19 pandemic, stemming from the SARS-CoV-2 virus and otherwise known as coronavirus, began in Wuhan, China in December 2019. It has involved a significant portion of the world within the span of a few months. SARS-CoV-2 has affected the lives of millions, infecting over 25 million worldwide with a fatality of over 843,586. ¹ As of August 30th, 2020, the number of coronavirus cases has reached over 3.6 million in India. Despite a population of over 1.3 billion people, the number of confirmed cases across India is not what would have been expected.

This article seeks to highlight a small city called Chandigarh and how the administration implemented measures that curbed coronavirus infection rates. The methods employed by Chandigarh could also be similarly used for other cities around the globe. Chandigarh is a city in the northern part of India spanning 44 square miles that serves as the capital of two neighboring states, Punjab and Haryana. Despite being the capital of two separate states within India, it is directly governed by the Government of India itself. It has a population of 1,055,000 and a literacy rate of 89.99% and 81.19% among males and females

respectively. ² The first COVID-19 case in Chandigarh was reported on March 19, 2020. At the time of this writing on August 30th, 2020, only 4155 cases have been confirmed, and 2296 patients have recovered with 52 mortalities. The number of people quarantined totals 23,671. ³ The relatively low amount of confirmed cases and fatality rates could only happen because of the immense support from the Indian Ministry of Health, the Government of India, and the Chandigarh administration. ⁴

Janata Curfew

On March 22, 2020, the nation of India witnessed a "Janata Curfew" which was a lockdown requested by the Prime Minister of India, Narendra Modi, without any law being imposed and by the will of the whole nation. The Prime Minister addressed the entire country by requesting citizens to stay at home from 7 AM - 9 PM to test the effectiveness of a lockdown in stopping the spread of the coronavirus. He urged state government organizations such as the National Cadet Corps and National Service Scheme to encourage citizens to follow the Janata curfew actively. Most of the population complied and stayed inside. As a show of appreciation to those who had to remain working,

such as health care workers, police, and sanitization workers and to commend everyone who stayed home, there was a countrywide movement that spread virally. Across India, people clapped and banged utensils simultaneously on their balconies in the evening to show appreciation for the Prime Minister and their fellow citizens.⁵ This created a sense of unity during the time of the COVID-19 pandemic and the entire country was placed under strict lockdown starting the very next day.

Lockdown

The lockdown in Chandigarh, has been very successful. The Government under the Epidemic Disease Act, 1897, imposed Section 144 of the Code of Criminal Procedure (CrPC) and initiated a lockdown curfew on the city on March 23, 2020, which was extended to May 03, 2020. According to Section 144, no more than 5 people were allowed to gather at any place and individuals were not allowed to leave their homes, stand outside, or move on foot or vehicle on any road or public places (except for emergency medical aid). If a person was found doing so, they were subject to legal action.^{6,7} One person per household was allowed to leave their home between 10 AM and 6 PM to visit

essential shops and supermarkets for groceries.⁸ This strict curfew was enforced with the help of drones to monitor individuals who broke the curfew.

The lockdown brought the entire city of Chandigarh to a halt. All social gatherings ceased, and means of domestic transportation, schools, and non-essential businesses were shut down. If any vehicle was found on the road without a valid reason, it was taken into custody. Daily official meetings were conducted to address new problems on a day-to-day basis. The city also created a COVID-19 website for citizens to access all information about the efforts to combat the pandemic, including daily press releases from the governing body. Additionally, the Government of India also developed a mobile application (App) called AAROGYA SETU to rally its citizens in the fight against COVID-19. The App was available for download on Android and iPhone and allowed people to assess their risk of getting coronavirus by tracking their movement through the use of cellular GPS and Bluetooth.^{9,10}

Screening and quarantine

Per the Government of India, all asymptomatic individuals with a

travel history to a foreign country, contact with a COVID-19 positive case or any COVID-19 symptoms were to be quarantined at home for 14 days.¹¹ All individuals who met the criteria for coronavirus testing were offered tests at zero cost.¹² Additionally, Chandigarh began door-to-door screening for coronavirus symptoms and travel history, becoming the first city in India to do so.¹³ All healthcare workers, hospital staff, police personnel, vendors, and government officials who were at high risk underwent thermal screening every day and were also monitored for exposure. If they were found to have exposure to a COVID-19 positive patient, they were subsequently quarantined and followed up for 14 days. If a person developed any symptoms, they were isolated and tested for COVID-19.

In Chandigarh, teams were made to enquire about suspected coronavirus cases, positive cases, track patients' contact history, and ensure quarantine of all the contacts for 14 days to prevent transmission. The suspected cases were monitored by these teams via telephone interviews and were tested if individuals developed any symptoms. The government offices, private hotels, and community centers were converted into

quarantine facilities to maintain effective quarantine of all positive or suspected individuals.

Delivery of essential goods

The Chandigarh administration, by involving all government public departments such as the Municipal Corporation of Chandigarh, police authorities, and district magistrate authorities, chalked out all the essential goods needed to fulfill the basic needs of the residents so that effective lockdown was maintained. Some community centers and religious institutions were transformed into community kitchens where cooked food was provided to needy individuals. Since 10-15% of the Chandigarh population are daily wage earners, the lockdown created a temporary loss of employment and income for many. Hence, the community kitchens and shelter homes were made for individuals who might otherwise suffer economically due to the lockdown. As per the Chandigarh administration, cooked meals were distributed to approximately 15,000 needy persons daily. Rations and vegetables were also supplied to rehabilitation colonies, slum areas, and villages via buses. On April 9, 2020, the Chandigarh Administration authorized the distribution of 3 months' worth of

food grains to lower-income families at no cost.¹⁴ On April 17, 2020, the Department of Social Welfare of Chandigarh, distributed take-home rations including weaning foods, eggs, and milk. Included in this were sanitary pads for 530 women and girls to encourage good menstrual hygiene.¹⁵ Additionally, to provide accessibility to essential commodities, all shops with essential commodities like food grain, groceries, fruits, vegetables, milk, meat and fish were allowed to remain open from 10 am to 6.00 pm daily.

Those that were able to go grocery shopping in person had to follow strict guidelines as mandated by the city administration. In grocery stores, patrons were allowed to enter shops if they wore a mask and only after thermal screening using infrared thermometers and hand sanitization. Store workers were also given masks, hand wash, and sanitizers in an effort to prevent the spread of coronavirus. Markings were made for customers to stand in grocery stores at a distance of 6 feet to each to ensure social distancing.^{16,17} Home delivery and electronic payments were heavily encouraged to prevent in-person contact. In additional efforts to ensure social distancing and maintain lockdown, the city of

Chandigarh also began implementing door-to-door delivery of daily essentials like meat, vegetables, and dry products with the help of local vendors who were screened, given masks, gloves, and sanitizers.¹⁸ To prevent price gouging and food scarcity, the costs of goods were regulated by the government and fixed-priced lists were displayed on buses delivering food to neighborhoods.

Sanitization of the City

The Office of the Medical Officer of Health maintains responsibility for the sanitation of the city of Chandigarh. The Municipal Corporation of Chandigarh has sanitized and fogged areas around the city, with trucks and drones, to prevent the spread of COVID-19.¹⁹ The entire city of Chandigarh was also sanitized by antibacterial sprays set up in vehicles provided by the Ministry of Health.

Healthcare Setup

In hospitals across the city, elective surgeries were halted and all doctors, nurses, and healthcare personnel were mobilized and trained on infection control and prevention. Hospitals were mandated to ensure appropriate staffing to handle overflow situations and to maintain a sufficient number of ventilators and

high-flow oxygen masks.²⁰ If any healthcare personnel was infected with coronavirus, treatment was provided free of cost. All non-essential workers and medical students were given leave and telemedicine was implemented.

Three of twenty-two hospitals were designated as COVID-19 hospitals in Chandigarh and six fever clinics were set up as the first level of screening to identify and authorize suspected coronavirus cases for testing. Additionally, three sampling centers were designated for suspected COVID-19 sampling collection. Healthcare facilities were divided into three types of facilities: COVID-19 care centers for mild cases, dedicated health centers for moderate cases, and COVID-19 hospitals for severe cases. In each hospital, separate areas were made to designate a COVID-19 screening area and a COVID-19 ward. Medical supplies such as gloves, surgical and N95 masks, sanitizers, PPE as per requirement, gumboots and disinfectants were provided to the staff deployed at these facilities by the government. The healthcare workers were regularly monitored for any symptoms or any unprotected contact with a COVID-19 positive patient and immediate quarantine was advised. Accommodation and food for healthcare workers were arranged

near the hospitals to prevent exposure to their families.

Methods

Much of the information for this article was gathered from the official website employed by the city of Chandigarh to inform residents of updates and maintain transparency while battling the COVID-19 pandemic.²¹ Many of the announcements by the Chandigarh administration are available on the website in PDF format for people to access. The uploading of official documents and press releases by the administration aids in keeping citizens informed by allowing information to be accessible at any time.

Conclusion:

Despite the alarming rate of coronavirus cases around the world, the city of Chandigarh has shown us how to effectively combat the spread of a deadly pandemic. By acting fast and implementing a strict lockdown, the government was able to control the number of positive coronavirus cases, and in turn, prevent many deaths. Strict curfew and social distancing, proper sanitization, and preventative spread techniques were implemented to curtail the spread of COVID-19. Food and shelter were provided to those who

needed and essential groceries were delivered in an effort to curb population movement and the spread of coronavirus. However, without the participation and help of the citizens, an effective lockdown could not have been maintained. The city of Chandigarh implemented many avenues such as websites, apps, and telephone numbers in an effort to keep its citizens calm and informed. This resulted in a population who willingly took the necessary steps to prevent a deadly pandemic in the city. Chandigarh and its citizens are an example of how to effectively curb the growing pandemic of COVID-19.

Acknowledgements & Disclosure:

We have no conflicts of interest to disclose.

We have no author contributions to disclose.

We have no sponsors to disclose.

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