# PUNJAB COVID-19 RESPONSE REPORT





Mahatma Gandhi State Institute of Public Administration, Punjab

## PUNJAB COVID-19 RESPONSE REPORT

INITIATIVES AND POLICY MEASURES
(UPTO JULY 2020)





Mahatma Gandhi State Institute of Public Administration, Punjab

### Chief Minister's Address



Captain Amarinder Singh Chief Minister of Punjab

The unprecedented COVID crisis has underlined the criticality of effective response as never before. Responsiveness has emerged as a yardstick for measuring the success of governments across the world in tackling this calamity. Such responsiveness requires a high level of agility, coupled with the ability to anticipate, understand and fulfil the urgent needs of the entire crosssection of the society. It necessitates unique policy interventions and outof-the-box measures for anticipating critical requirements across the key sectors of health, industry, agriculture, education, among others.

Adopting a multi-pronged crossdepartmental approach, supported by the collective expertise experience of specialists as well as frontline workers, we, in Punjab, moved quickly at the outset to put in place a seamless system for managing the challenges of the lockdown, and of gradually opening up the state thereafter. From procurement and distribution of health and medical supplies and essential commodities, to managing migrant movement, ensuring access to online education and expeditiously digitalising critical services, we dug deep into the core of our resilience and strengths the multitude respond to challenges with efficacy. strength from our courageous and hard-working citizens, who we believe to be Punjab's biggest asset, we relentlessly navigated the multiple challenges with positivity and passion.

Needless to say, the crisis is far from over, and the road ahead is long and difficult. Though the strategic initiatives we have systemically taken in these past few months have placed us in the enviable position of being in significant control of the situation, massive challenges still remain.

As a government that cares, we know we cannot afford to rest on the little successes we have mapped. We are cognisant of the importance of periodic feedback, analysis and interpretation of our programmes, plans and policies to reassess their status from time to time, in order to define the way forward more cohesively.

I must record my deep appreciation to the large mass of government officials and volunteers that have tirelessly, and selflessly, been at the vanguard of the State's fight against COVID-19. Many of them even contracted the disease and some have unfortunately perished. We remain indebted to each one of you. I must also acknowledge with gratitude the decisive leadership provided to the State's government machinery by the former Chief Secretary Karan Avtar Singh and the present incumbent Vini Mahajan. Their ability to effectively coordinate across departments as well as experts from both within and outside the country, has played an important part in our successful response to the pandemic.

The Punjab Covid-19 Response Report, prepared by the Mahatma Gandhi State Institute of Public Administration, documents the results of these inputs/analyses, and tries to assess the efficacy of the state government's responsiveness in the time of this crisis. It seeks to measure the agility of our response through lens of government policy interventions and measures, as well as the on-ground implementation of the same through various institutional mechanisms. I believe that by leveraging the learnings of these assessments, we shall be able to redefine the way forward for Punjab, as it moves towards a new tomorrow, beyond the pandemic.

Captain Amarinder Singh Chief Minister of Punjab

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### Foreword



Ms. Vini Mahajan, IAS Chief Secretary, Punjab

As the world bravely battles against COVID-19, the gravest health crises of our times, we have seen a total paradigm shift in the way we live and work. The pandemic has led to the emergence of a new and radical construct of societal norms and governance. The economic ramifications of the unavoidable lockdowns and COVID-19 protocols, to prevent the spread of the virus, are immeasurable. The pressure on our governmental machinery especially the public health system has been immense as the situation is both unpredictable and dynamic. This unprecedented emergency has disrupted the "business as usual" approach in government and we in the State are working collectively and collaboratively with all stakeholders to deal with this public health crisis and its social and economic impact. The State has pro-actively formulated new sets of norms and protocols for the health, safety and livelihoods of its citizens.

In the wake of this unprecedented emergency, Punjab has rekindled its deep-rooted ethos of resilience, valour and selfless service. Not only are the government officials across departments working with passion and dedication during these trying times but we have also experienced a surge of civil society organisations coming forth voluntarily and contributing their time, money and labour to supplement the State's efforts. State has adopted a crossdepartmental approach in formulation implementation of COVID-19 protocols geared towards engineering a sustainable ecosystem for co-existing with COVID-19. Here, I must record our deep appreciation of the seminal role played by my predecessor Karan Avtar Singh in leading the State's fight against

The State has set forth novel strategies curated to sensitize, motivate and inspire citizens to collaboratively combat the deadly virus, through virtual awareness platforms, digital campaigns, institutionalisation of health, educational, agricultural, industrial and employment operations both in the rural and urban areas. Punjab converted the challenge posed by COVID-19 into an opportunity by innovating and repurposing industrial production towards swift manufacture of safety equipment for front-line workers during the lockdown.

The lockdown provided an opportunity to not only upgrade our Level I. II and III COVID Care facilities in the State and to stock up our supplies but also to forge new partnerships with the best health professionals from India and abroad to train our doctors on the latest protocols for COVID-19 patient management. The "new normal" has also steered the path for amalgamating and embracing a digital environment hereafter. Punjab has developed a State-of -the-art digital application COVA, tailored to cater to the current needs of the essential sectors especially the health sector through integration of aspects such as contact tracing and geo-fencing. The digital platform was also used for regulating functional facets encompassing migrant labour movement. employment generation, agricultural procurement, education etc thereby creating an interconnected digital fabric comprising of diverse sectoral weaves.

Our strength lies in our ability to withstand turbulent times together. It is from this strength that we draw courage to continue our battle against COVID-19. While a lot has happened over the last four months but the fight is far from over. This compilation of the COVID-19 response of the State is an effort to document the work done by different departments from March to July 2020, the challenges faced and the learnings therefrom. This document would serve as a guide and ready reckoner for future administrators and researchers.

I would like to thank the Mahatma Gandhi State Institute of Public Administration, Punjab who have been able to get the compilation done of Punjab's COVID-19 Response, in a short period of time on the request of the State Government. I would also like to place on record my appreciation of the young and dynamic team of Ernst and Young LLP who have worked diligently to write and curate this document pro bono and to the team of Professors from ISB Mohali who have given their valuable inputs in finalising the contents of this report.

Ms. Vini Mahajan, IAS Chief Secretary, Punjab





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## **Abbreviations**

ACS(D) - Additional Chief Secretary (Development)

ADB- Asian Development Bank

ADC - Additional Deputy Commissioner

AIDS - Acquired Immunodeficiency Syndrome

AIIMS - All India Institute of Medical Sciences

ALS - Advance Life Support

ANM - Auxiliary Nurse Midwife

APMC- Agricultural Produce Market Committee

ARO- Army Research Office

ASHA - Accredited Social Health Activist

AWW - Angan Wadi Worker

AYUSH - Ayurveda, Yoga & Naturopathy, Unani,

Siddha and Homeopathy

BDPO- Block Development and Panchayat Officer

BIS- Bureau of Indian Standards

BLS - Basic Life Support

BLSA - Basic Life Support Ambulance

BMI - Body Mass Index

BMWM - Bio Medical Waste Management

**BOCW- Building and Other Construction Worker** 

Welfare Board

CB-NAAT--Cartridge Based Nucleic Acid

**Amplification Test** 

CCC - COVID Care Centres

CDAC - Centre for Development of Advanced

Computing

CGHS - Central Government Health Scheme

CHC - Community Health Centre

CICU- Chamber of Industrial & Commercial

Undertakings

CII- Confederation of Indian Industry

CMC - Christian Medical College

CMM- Council of Ministers Meeting

COVA - Coronavirus Alert

**CPT - Convalescent Plasma Therapy** 

C-PYTE- Centre for Training and Employment of

Punjab Youth

CQ - Chloroquine

CSC- Common Service Centre

CT - Computerized Tomography

DBEE- District Bureau of Employment & Enterprises

DC - Deputy Commissioner

DCH - Dedicated COVID Hospital

DCHC - Dedicated COVID Health Centres

DGP- Director General of Police

DGR -Department of Governance Reforms

DH - District Hospital

DHAD - Department of Animal Husbandry and

Dairying

DHS - Directorate of Health Services

DLPC - District Level Procurement committee

DMC - Dayanand Medical College

DoHFW - Department of Health and Family Welfare

DoGR&PG- Department of Governance Reforms and

Public Grievances (DoGR&PG)

DRDO- Defence Research and Development

Organisation

DTH - Direct to Home

ECG - Electrocardiogram

ELISA - Enzyme-linked Immunosorbent Assay

EMT - Emergency Medical Technician

ENT - Ear, Nose, And Throat

FCI- Food Corporation of India

FICCI- Federation of Indian Chambers of Commerce

and Industry

GADVASU - Guru Angad Dev Veterinary and Animal

Sciences University

GDMO - General Duties Medical Officer

GEM - Government e-Marketplace

GGSMC - Guru Gobind Singh Medical College

MNREGA - Mahatma Gandhi National Rural GMC - Government Medical College **Employment Guarantee Act** GoGs - Guardians of Governance MO - Medical Officer Gol - Government of India MoHFW - Ministry of Health and Family Welfare GoP - Government of Punjab MOOC- Massive Open Online Courses GSDP- Gross State Domestic Product MoRTH- Ministry of Road Transport and Highways HBV - Hepatitis B Virus MoU - Memorandum of Understanding HCQ - Hydroxychloroquine MPW - Multipurpose Health Worker HCV - Hepatitis C Virus MSME- Micro, Small and Medium Enterprises HDU - High Dependency Units MSP- Minimum Support Price HIS - Hospital Information System MYAS-Ministry of Youth Affairs and Sports HIV - Human Immunodeficiency Virus NBFC- Non- Banking Financial Company HLL - Hindustan Latex Limited NCC- National Cadet Corps HQ - Head Quarter NCR - National Capital Region ICDS - Integrated Child Development Services NCVT - National Council of Vocational Training & ICMR - Indian Council of Medical Research Education ICU - Intensive Care Unit NGO- Non- Government Organization IDSP - Integrated Disease Surveillance Programme NHAI- National Highways Authority of India IEC - Information Education and Communication NHM - National Health Mission IGOT - Integrated Government Online Training NIRD&PR- National Institute of Rural Development ILI - Influenza Like Illness and Panchayati Raj IMA - Indian Medical Association NPA-Non-performing Asset IMF- International Monetary Funds NRI - Non-Resident Indian IMTECH - Institute of Microbial Technology **NSS- National Service Scheme** ITI - Industrial Training Institute NUHM - National Urban Health Mission IVR-Interactive Voice Response OCI-Overseas Citizen of India KMS - Kharif Marketing Season OOAT - Outpatient Opioid Assisted Treatment LMT - Lakh Metric Tonne **OPD - Outpatient Department** MC - Market Committee PAU - Punjab Agricultural University MCH - Mother and Child Health PCR - Polymerase Chain Reaction MCI - Medical Council of India

MERS - Middle East Respiratory Syndrome

**Employment Guarantee Act** 

MHA - Ministry of Home Affairs

MGNREGA - Mahatma Gandhi National Rural

PDS- Public Distribution System

**Education and Research** 

Mission

PGIMER - Postgraduate Institute of Medical

PGRKAM- Punjab Ghar Ghar Rozgar and Karobar

PHC - Primary Health Centre

PHSC - Punjab Health Systems Corporation

PMB - Punjab Mandi Board

PMGKAY- Pradhan Mantri Garib Kalyan Anna

Yojana

PPE - Personal Protective Equipment

PSIEC - Punjab Small Industries & Export

Corporation limited

PSU - Public Sector Undertaking

PUNSUP - Punjab State Civil Supplies Corporation

Limited

PWD- Public Works Department

QTL - Quintal

R&D - Research & Development

RO- 'R naught', mathematical term that indicates

contagious infectious disease is

RATK- Rapid Antigen Testing Kit

RDDL - Regional Diseases Diagnostic Laboratories

RMO - Regional Medical Officer

RMS - Rabi Marketing Season

RNA - Ribonucleic Acid

**RO - Reverse Osmosis** 

RRT - Rapid Response Team

RSD - Ranjot Singh Dam

RT-PCR - Reverse Transcription Polymerase Chain

Reaction

SARI - Severe Acute Respiratory Infection

SARS - Severe Acute Respiratory Syndrome

SARS-Cov-2 - Severe Acute Respiratory

Syndrome Coronavirus 2

SCCR - State COVID-19 Control Room

SCVT -State Council of Vocational Training &

Education

SDH - Sub Divisional Hospital

SDM- Sub-Divisional Magistrate

SDM,P- Sub-Divisional Magistrate, Police

SHG - Self Help Group

SHO -Station House Officer

SITRA- The South Indian Textile Research

Association

SMS- Short Messaging Service

**SOP- Standard Operating Procedure** 

SPCB - State Pollution Control Board

SPM - Social and Preventive Medicine

SRDF - State Disaster Response Fund

TB - Tuberculosis

TCD - Tons of Cane per Day

TOT - Training of Trainers

**UAE- United Arab Emirates** 

UK - United Kingdom

**UNICEF- United Nations International Children's** 

**Emergency Fund** 

**UPSC - Union Public Service Commission** 

**URTI - Upper Respiratory Tract Infection** 

**USA - United States of America** 

**UT - Union Territory** 

**VBD - Vector Borne Diseases** 

VHSNC - Village Health Sanitation and Nutrition

Committee

VLE- Village Level Entrepreneur

**VPO - Village Police Officer** 

VRDL - Viral Research Diagnostic Labs

VTM - Viral Transportation Medium

WHO - World Health Organization

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## **Executive Summary**

This report presents the narrative for decisions made and how the state responded to the COVID-19 pandemic across the below listed themes. The report documents the efforts taken by the state of Punjab as a response to this pandemic till July 2020.



#### Introduction

The first chapter offers a brief overview of initial global and national responses to the COVID-19 pandemic, establishing context to this report. It further details the structure of the report, as well as provides a readers guide, which articulates the core intentions of the document.

#### Institutional mechanisms

Anticipating the need for an extensive and experienced panel of experts to be at the forefront of the crisis, the state government began to organize committees, each assigned to a specific aspect of crisis control. The committees comprised of senior-level bureaucrats from a wide range of departments and committee tasks including: health sector procurement, supply and distribution of essential goods amidst the lockdown, mitigating the unique hardships of migrant labourers, and more. The chapter presents the core members of each committee, and key actions taken.





#### Tackling lockdown related challenges

Ahead of the nationwide lockdown, Punjab was the first state in the nation to impose a curfew as a preventive measure to combat the spread of COVID-19. The state ensured strict enforcement, while also providing essential supplies and services. Government of Punjab complied with the Ministry of Home Affairs orders for the list of services which were allowed/not allowed during the lockdown.

The responsibility of enforcing the lockdown was primarily entrusted with the Punjab Police force. The department made sure that the lockdown was adhered to and took various initiatives within and beyond their call of duty to minimise the hardships of citizens, including particularly vulnerable groups such as migrants, daily wage labourers and others. The chapter also highlights the essential services provided in the state during the lockdown.

#### Supporting stranded people

As the lockdown curtailed movement, migrant workers as well as other people stranded in different parts of the country encountered a host of unforeseen challenges. Since Punjab employes a large number of migrant labourers, providing relief measures to these workers was a high priority. Assistance ranged from calming anxieties, providing shelter, food and essential items to facilitating the movement of lakhs of migrants looking to return to their native states.

The chapter represents the initiatives taken for outward and the inward migrant movement from the state including registration, interstate coordination, movement facilitation via road and rail. For inward movement to the state from abroad, facilitation centres were set up at international airports, coordination was done with embassies and quarantining facilities were also arranged.





#### Building resilient health ecosystems

This chapter chronicles the development of public health care measures taken to mitigate COVID-19 in Punjab, including prevention tactics, testing methods, surveillance and containment strategies. A brief summary of containment strategies across the state is outlined. The chapter also highlights infrastructural and manpower enhancements made by the state government (including Level I, Level II and Level III facilities outlined for COVID-19 specific care. It sums up the major successes and challenges of treatments thus far, and also emphasizes the pioneering role of the state's Government Medical Colleges in shaping the states' healthcare response. The chapter concludes with an overview of providing non-COVID related public health efforts during this time,, such as easy to use tele-medicine services, doorstep delivery of medicines for those suffering from co-morbidities, proactive steps to preventing outbreaks of other diseases such as dengue and malaria, and more.



#### Leveraging digital technologies

In almost all countries, the scale of coordination and data management required for effective implementation of COVID-19 strategies has relied on adopting digital technology and integrating it into policy and health care. This chapter details Punjab's digital interventions, particularly focusing on the development of the COVA application, and the wide range of uses it has been designed to accommodate. It also offers insight into other information technology modes adopted during this time, such as portals and dashboards for case-tracking purposes, an application designed to make the procurement season more efficient, and the implementation of e-Office for government officials.

#### Inter-departmental convergence

Efforts to control the COVID-19 pandemic must be rooted in a multifactorial approach that utilizes all hands on deck. In this vein, support for preventive measures came from all departments of the state government, irrespective of their traditional mandate. Further, the lockdown, albeit crucial from a public health standpoint, caused disruptions in various facets of everyday life, including transport, education, industrial growth and more. These and other departments thus played a key role in developing the framework for the new normal. This chapter highlights the efforts and activities of twelve departments, including Department of Industries, Rural Development, Cooperation, Water Resources, Water Supply and Sanitation, Local Government, Animal Husbandry, Education, Employment, Labour, State Transport, Jail, Punjab Bhawan and Punjab State Power Corporation Limited (PSPCL) who played a leading role during the initial phase of the pandemic.





#### Agriculture and wheat procurement

The timing of the COVID-19 outbreak in India coincided closely with Punjab's wheat harvesting season. The procurement and storage of wheat stocks in Punjab amidst a nationwide lockdown and global pandemic was a difficult operation, but key to maintaining regular food supply chains. The chapter presents the way in which the harvest, mandi and storage operations were carried out with safety and sanitization protocols being diligently followed, digital integration and community wide support.

#### Providing relief measures

The chapter outlines the ration distribution under the PMGKAY and Atmanirbhar schemes, and supporting efforts of the state government. The chapter also provides a summary of funds obtained from the State Disaster Relief Fund (SDRF), and the uses they were put towards, including:

- Setting up additional testing laboratories
- Setting up of relief camps
- Procurement of thermal scanners, ventilators, sanitizers etc.
- Management of expenses incurred by various departments
- Financial assistance provided to the stranded and migrant workforce
- Arrangement of transport facilities, food, medicines and other essentials





#### Looking back, moving forward

In April 2020, the Hon'ble Chief Minister of Punjab, Captain Amarinder Singh, set up a committee of diverse experts tasked with suggesting long term strategies for Punjab to recover from the socio-economic damage caused by the pandemic. Chaired by Sh. Montek Singh Ahluwalia-reputed economist and former Deputy Chairman of the Planning Commission—the committee presented their initial recommendations in August. This chapter provides a brief overview of these recommendations, allowing the reader to ponder future directions.





## Introduction

On 31st December 2019, a cluster of cases of illness whose symptoms were similar to pneumonia were first reported in Wuhan, China .¹ Upon further investigation, researchers found that the disease, subsequently named COVID-19, was caused by a newly discovered coronavirus: the SARS-CoV-2 virus. Early cases were traced to a seafood market, and the extent of human-to-human transmission risk remained unclear. By mid-January, cases had begun to surface in other parts of China, as well as the rest of the world.

Coronaviruses are a large family of viruses that are known to cause illness ranging from the common cold to more severe diseases such as Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS). All age groups are at risk of contracting COVID-19, but elderly people and those with underlying health conditions are particularly susceptible to severe illness. While the primary transmission route is through respiratory droplets expelled from an infected person, the disease can also spread through airborne routes, as well as through contaminated surfaces and objects. Infected persons may also display no symptoms at all (asymptomatic cases).<sup>2</sup>

These characteristics of the disease, coupled with an increasingly interconnected world and universally overburdened healthcare systems, allowed cases to spread rapidly. On 11<sup>th</sup> March 2020, the World Health Organization characterized COVID-19 as a pandemic.<sup>3</sup> The outbreak of COVID-19 is now the largest, longest, most severe and most complex public health emergency in recent history. As of 30<sup>th</sup> July 2020, there have been 1,74,64,696 cases reported worldwide and 67,61,42 deaths.<sup>4</sup>

In addition, the socio-economic damage caused by COVID-19 has been extensive. It is a large-scale health shock that has required a conscious and essential pause on global activity to curb infection spread. Consequently, a parallel economic crisis has emerged. The International Monetary Fund (IMF) estimates the global economy will contract by 3%, pushing an additional 40-60 million people into extreme poverty—the first increase in global poverty in over two decades.<sup>5</sup>

This report documents Government of Punjab's efforts to tackle the pandemic, as well as its economic and social effects, till July 2020.



30 Jan 20	9 Mar'20	19 Mar'20	23 Mar'20	25 Mar'20	29 Mar'20	15 Apr'20
First COVID-19 case in India reported, in Thissur, Kerala	First COVID-19 case in Punjab reported in Amritsar, person had returned from Italy	First COVID-19 death in Punjab the fourth in the country		Nationwide lockdown announced	High level committees are formed to tackle COVID response	Lockdown 2.0 is announced

"In some ways disease does not exist until we have agreed that it does, by perceiving, naming, and responding to it."

-Charles . E. Rosenberg, 1992 6

limited food and water supplies to sustain them. Thus, a parallel crisis emerged, and policymakers faced their biggest test in generations, which required crafting a delicate balance between lives and livelihoods.

#### "The important thing for Government is not to do things which individuals are doing already, and to do them a little better or a little worse; but to do those things which at

present are not done at all."

-John Maynard Keynes, 1926 11

#### 1. The National Lockdown

The first case of COVID-19 in India was reported on 30<sup>th</sup> January 2020 in Thissur, Kerala. In the weeks that followed, cases were reported elsewhere, including Delhi, Hyderabad, Ladakh and Chennai, all with a history of travelling abroad. At the state level, flu corners were set up at hospitals for people reporting symptoms, and passengers were screened at international airports. Medical professionals underwent infectious disease training and put in place new protocols, preparing for a potential surge in cases. In early March, travel restrictions were placed on foreign passport holders and Overseas Citizen of India (OCI) card holders, later extended to all passengers coming from Europe, the United Kingdom and Turkey.8

On 25<sup>th</sup> March 2020, the Hon'ble Prime Minister announced a 21-day nationwide lockdown, later extended further, with restrictions slowly phased out (See Timeline). The measure was hailed as a prompt response, praised by the World Health Organization (WHO) as "tough and timely". Given India's large population density—and the living conditions of many Indians, often not conducive to physical distancing—there was a high risk that cases might surge, overwhelming the existing health infrastructure and leading to many preventable deaths. In this respect, the lockdown was prudent: aimed at halting disease progression, as well as allowing time to prepare healthcare infrastructure and build human capacity.

Yet, lockdowns lead to many administrative and logistical hurdles. Further, the sudden cessation of economic activities in a lockdown disrupts supply chains and economic ecosystems in the short term as well as in the future. The national lockdown also disproportionately affected the most economically disadvantaged, including daily wagers, labourers, and the homeless. Forced to take unpaid leave or removed from their jobs, many migrant workers wished to return home. While transport had been curtailed, many migrant workers (sometimes accompanied by their families) embarked on long journeys by foot, with

#### 2. States Respond

Curbing the spread of COVID-19 to India's large and diverse population of 1.3 billion, across states, health inequalities, widening economic and social disparities and distinct cultural values was no easy task. Various states were presented with distinct challenges and were able to respond by leveraging unique expertise cultivated through past crises. Kerala's past experience with the Nipah virus outbreak in 2018 proved to be a great advantage, as the state infrastructure had seen the benefits of extensive testing, contact tracing measures and community participation first-hand before. Similarly, Odisha leveraged learnings from past natural disasters, and was able to put their crisis management skills to use. Many states scaled their technology led-solutions, finding creative ways to tackle the pandemic while limiting physical exposure. In addition to Aarogya Setu-the central government's contact tracing app developed in April-at least sixty other apps were rolled out by the central government, state government, government run health agencies, and other official authorities, related to COVID-19.12

Furthermore, targeted efforts were made to combat the stigmatization faced by patients, as well as suspected patients. An info-demic of misinformation plagued the country, with citizens unaware of the new, unknown disease that had suddenly surfaced. The public was educated through Information, Education and Communication (IEC) and social media campaigns as well as community efforts on transmission routes and safety precautions to be taken. Emphasizing the courage and valour of patients, as well as frontline workers braving the pandemic to serve others was important in fostering a culture of support and trust.

15 Apr'20	4 May'20	5 May'20	18 May 20	1 Jun '20	1 July '20	1 Aug '20
Start of Rabi Marketing Season wheat procurement operations	Lockdown 3.0 announced, Red Green and Orange zones identified	First 'Shramik Express' train leaves Punjab carrying migrants home	Lockdown 4.0 is announced, curfew restrictions announced	Unlock 1 begins, phased reopening of hospitality services	Unlock 2 begins, no restriction on inter-state and intra-state movement	Unlock 3 is announced , night curfew is d still enforced in the state



"Mission Fateh symbolises the resolve of the people of Punjab to halt the spread of the novel Coronavirus through Discipline, Cooperation and Compassion ... It is a true reflection of the Punjabi Spirit that can overcome all odds to emerge victorious.."

-Capt. Amarinder Singh, 2020<sup>13</sup>

#### 3. The Pandemic in Punjab

In Punjab, efforts to mitigate the spread of COVID-19 were already in place when the nationwide lockdown was announced. Even before the lockdown, the Government of Puniab had already instituted a statewide curfew, and the promotion of prevention measures such as frequent handwashing and physical distancing, IEC activities and contact tracing of confirmed cases using technology had already commenced. The first case in Punjab was reported on 9th March 2020, following which, the state government initiated prompt action. Punjab took the lead in instituting many successful policies and responses- the state government set up various high level committees to spearhead the COVID-19 response. (See Chapter 2). Some major initiatives undertaken by Punjab during this time include:

 Punjab was among the first few states in India to approve Plasma treatment for critical COVID-19 patients in hospitals. The first Plasma Bank was inaugurated on 21 July 2020 at Rajindra Hospital, Patiala.

- The Government of Punjab provided subsidies up to 50% on purchase of machinery to help farmers to tackle the problem of labour scarcity amid COVID-19
- The first COVID-19 related mobile app in India was launched on 9th March 2020, with geotagging and geofencing features. 11 other states have requested Punjab for backend access.
- Punjab is the first state in the country to have a N-95 mask manufacturer with both DRDO and BIS certification.
- Ghar Ghar Rozgar & Karobar Missions were initiated to facilitate employment for the benefit of both employers and prospective employees.
- Over 53,000 Anganwadi workers and helpers across state are playing a leading role in the 'Mission Fateh' awareness campaign, supporting surveillance efforts, and working to provide regular healthcare services, particularly mother and child health related.

This report elaborates upon these and other efforts further, shedding light on challenges faced and lessons learnt. The experience of healthcare workers, decision-makers, community volunteers of being on the frontlines during this pivotal historical moment, will undoubtedly be invaluable in future crises as well.

Further, the crisis has inevitably transformed public policy, particularly as it has illuminated the benefits of working in tandem with other departments to achieve greater heights. It has also shown the integral role community participation plays in such crises: supporting state machinery in healthcare response, relief efforts, capacity building and more. This report is also an effort to highlight these two key learnings from the initial crisis response.

#### 4. Structure of the Report

This report provides an account of Punjab's battle against COVID-19. It is organized into ten chapters, each focused on a specific thematic thread. Chapter 2, 'Institutional mechanisms', provides an overview of the high-level committees constituted by the Cabinet to combat COVID-19, highlighting key actions taken by each committee. Chapter 3, 'Tackling lockdown related challenges' details the progression of the lockdown in Punjab, challenges to its enforcement, and the efforts that went into ensuring supply and delivery of essential goods was not disrupted. As a result of the lockdown, migrants across the country faced difficulties in returning to their hometowns, or alternatively, making arrangements to stay where they were. Chapter 4, 'Supporting stranded people', spotlights the state government's efforts to support this group of peopleboth those attempting to exit the state, and those seeking to return.

The next chapter, Chapter 5, 'Building resilient health ecosystems' chronicles the development of public health care measures taken to mitigate COVID-19 in Punjab.

History will look back on this moment of crisis and judge government responses on their ability to innovate and deploy technologies in innovative ways. Chapter 6, 'Leveraging digital technologies', provides an overview of IT initiatives implemented by the state during the first phase of the pandemic, including the COVA application designed in light of the pandemic.

Embracing a whole of government approach, various different departments came together to tackle the emergency collectively. **Chapter 7**,

'Interdepartmental convergence' highlights these efforts. The following chapter, Chapter 8, 'Agriculture and wheat procurement' is a deep dive

into Punjab's wheat procurement is a deep dive into Punjab's wheat procurement exercise, carried out in the middle of the lockdown, without a single COVID-19 case reported.

Chapter 9, 'Providing relief measures', outlines relief initiatives by the government as well as financial support provided by the State Disaster Relief Fund (SDRF). Lastly, Chapter 10, 'Looking back, moving forward' presents initial recommendations put forth by the Expert Committee constituted by the Hon'ble CM to look into strategies to recover from the pandemic in the medium and long term.

#### 5. Readers Guide

Even as the report has been organized into these chapters for ease of reading, the complex and interconnected nature of crises response meant that often, initiatives and policy measures were crosscutting in nature, with responsibilities overlapping across departments and organizations.

This report should be read as a documentation of policy initiatives and response in Punjab during the first phase of the pandemic, highlighting best practices and reflecting on challenges overcome. While every effort has been made towards making the report as comprehensive as possible, omissions are inevitable. In this vein, the report should not be treated as exhaustive, but rather, as representative of Punjab's initial response to the crisis in broad strokes. The hope is that a macro level, the findings of this report will be able to guide the next phase of the pandemic, as well as serve as valuable reference material in future crises.

Two additional points on the scope of this report should be mentioned. Firstly, a crisis of this scale has demanded a pro-active and hands-on approach like never before. Thus, situations are constantly evolving, and responses and protocols accordingly adapted. In many cases, the protocols documented in this report may already have been updated. The report should be seen as a reference document to infer best practices and provide insight into Puniab's pandemic response during the first phase of the pandemic in India, not as a current and updated repository of standard operating procedures (SOPs) and advisories. Secondly, Punjab is a large and diverse state, comprised of twenty-two separate districts. This report documents efforts at the state level, but there are many meaningful initiatives that have been taken at the district and sub-district level to manage the pandemic. Such efforts have been highlighted where possible, but as a whole, should be considered beyond the scope of this report.



one rational reality means are prepared for each patient

Institutional Mechanisms



## Institutional Mechanisms



#### 1. Introduction

No set of pre-existing protocols or laws could satisfactorily address the many, multi-faceted challenges brought about by the onset of COVID-19. The novel aspects of the pandemic, and its spill over into nearly every field of governance meant that the entire state machinery was involved in some way or the other in containing its spread.

The Punjab Cabinet was quick to recognize the grave danger posed by COVID-19, and consequently, organized the human infrastructure needed to combat the threat. To this end, expert committees were formed comprising of senior-level bureaucrats who were assigned for tackling specific constraints brought about by the pandemic. 1 Under the guidance of the State COVID-19 Management Group, these committees were formed to tackle specific pandemic related issues, including but not limited to: ensuring health sector procurement, augmenting human resources. managing supply and distribution of essential goods amidst the lockdown, mitigating the unique hardships of migrant labourers, and more. Members of these committees spearheaded crisis response, supported by the District Administration, officials from various departments, community volunteers, and others.

The committees were also tasked to interface with each of the empowered groups constituted by the

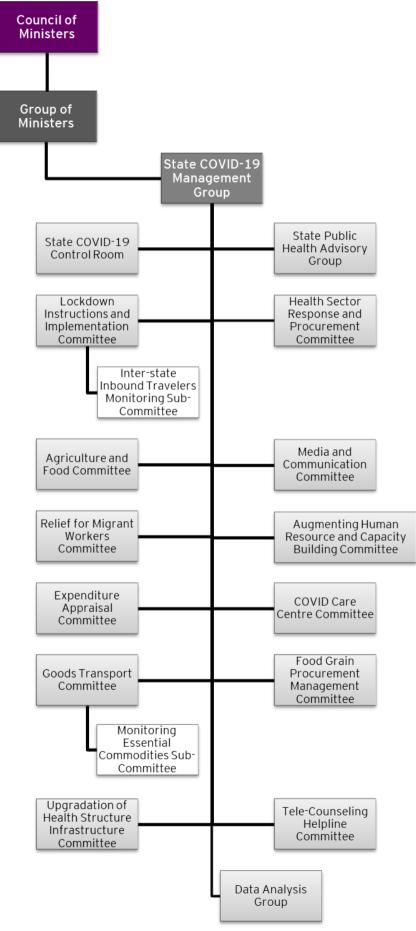
Ministry of Home Affairs, Government of India for planning and ensuring implementation of COVID-19 response activities.

Moreover, combatting a crisis of such proportions is only possible through policy measures that are well-informed, but also holistic. Accordingly, the state government sought the input of many different experts, including epidemiologists, social workers, economists and many others. In April, a special task-force was instituted to propose an efficient and safe way to phase out lockdown restrictions and restart the economy. Taskforce members included distinguished former civil servants, industry leaders, and representatives from various other sectors. The taskforce presented their report on 24th April 2020.

The Government of Punjab also constituted a group of experts, led by Sh. Montek Singh Ahluwalia to develop a medium and long term economic strategy for the state post-COVID-19. (Chapter 10 highlights the major recommendations made by the committee in their initials report).

The following chapter provides details on the committees formed by the Government of Punjab ahead of the COVID-19 pandemic, underscoring key decisions and actions taken.

#### 2. Organizational structure



#### Prabhari Secretaries

Prabhari Secretaries (Admin Secretaries) were assigned for each district to guide the district administration and supervise the COVID-19 measures. They also facilitated early resolution of the district level challenges.

Name of official	District
Shri Viswajeet Khanna,	Patiala
Additional Chief Secretary	1 atlala
Smt. Ravneet Kaur, Additional	SBS Nagar
	3D3 Nayai
Chief Secretary	Mansa
Shri Sanjay Kumar, Additional	Maisa
Chief Secretary	Fore-onin
Shri V.K. Janjua, Additional	Ferozepur
Chief Secretary	Damala
Shri Kirpa Shankar Saroj,	Barnala
Additional Chief Secretary	111- 2
Shri Anirudh Tewari,	Ludhiana
Additional Chief Secretary	
Shri Anurag Aggarwal,	Amritsar
Additional Chief Secretary	
Shri R. Venkat Ratnam,	Gurdaspur
Additional Chief Secretary	
Shri A. Venu Prasad, Financial	Pathankot
Commissioner	
Smt. Seema Jain, Financial	Ropar
Commissioner	
Shri Saravjit Singh, Principal	Tarn Taran
Secretary	
Smt. Raji P. Shrivastava,	Fatehgarh
Principal Secretary	Sahib
Shri KAP Sinha, Principal	Faridkot
Secretary	116'
Shri Jaspal Singh, Principal	Hoshiarpur
Secretary	Cu: Marietana
Shri Anurag Verma, Principal	Sri Muktsar
Secretary	Sahib
Shri K. Siva Prasad, Principal	Fazilka
Secretary	Manusthala
Shri Vikas Pratap, Principal	Kapurthala
Secretary	Jalandhar
Shri Alok Shekher, Principal	Jaiailullai
Secretary	Moga
Shri D.K. Tewari, Principal	Moga
Secretary Smt. Jaspreet Talwar,	SAS Nagar
	SAS Nayai
Principal Secretary	Dothinda
Shri Hussan Lal, Principal	Bathinda
Secretary	Congress
Shri Vivek Pratap Singh,	Sangrur
Secretary	



#### **Council of Ministers**

#### Members:

- Capt. Amarinder Singh, Chief Minister
- Brahm Mohindra, Minister- Local Government, Parliamentary Affairs, Elections, Removal of Grievances
- Manpreet Singh Badal, Minister- Finance, Planning, Programme Implementation
- Om Parkash Soni, Minister- MER. Freedom Fighters, Food Processing
- Sadhu Singh Dharmsot, Minister- Forests, Printing and Stationary, Welfare of SCs and BCs
- Tript Rajinder Singh Bajwa, Minister- Rural Development and Panchayats, Animal Husbandry, Fisheries and Dairy Development, Higher Education
- Rana Gurmeet Singh Sodhi, Minister- Sports and Youth Affairs, NRI Affairs
- Charanjit Singh Channi, Minister- Technical Education and Industrial Training, Employment Generation, Tourism and Cultural Affairs
- Aruna Chaudhary, Minister- Social Security, Women and Child Development
- · Razia Sultana, Minister- WSS, Transport
- Sukhjinder Singh Randhawa, Minister- Cooperation, Jails
- Sukhbinder Singh Sarkaria, Minister- Water Resources, Mines and Geology, Housing and Urban Development
- Gurpreet Singh Kangar, Minister- Revenue, Rehabilitation and Disaster Management
- Balbir Singh Sidhu, Minister- HFW, Labour
- Vijay Inder Singla, Minister- School Education. Public Works
- Sunder Sham Arora, Minister- Industries and Commerce
- Bharat Bhushan Ashu, Minister- Food and Civil Supplies and Consumer Affairs

#### **Group of Ministers**

#### Chairperson:

Brahm Mohindra, Local Government Minister

#### Members:

- O.P. Soni, Medical Education and Research Minister
- Tript Rajinder Singh Bajwa, Rural Development and Panchayat Minister
- · Razia Sultana, WSS and Transport Minister
- Balbir Singh Sidhu, Health and Family Welfare Minister
- Vijay Inder Singla, Education Minister
- Bharat Bhushan Ashu, Food, Civil Supplies and Consumer Affairs Minister



#### State COVID-19 Management Group

#### Chairperson: Chief Secretary, Punjab

Karan Avtar Singh (Till 26<sup>th</sup> June 2020) Vini Mahajan (From 26<sup>th</sup> June 2020 - Present)

#### Members:

- Principal Secretary to Chief Minister, Punjab
- · Additional Chief Secretary, Revenue
- Additional Chief Secretary, Home Affairs and Justice
- Additional Chief Secretary, Governance Reforms
- · Additional Chief Secretary, Local Government
- Additional Chief Secretary, Health and Family Welfare
- Principal Secretary, General Administration (Member-Convener)
- Financial Commissioner, Rural Development and Panchavats
- Principal Secretary, Food, Civil Supplies and Consumer Affairs
- Principal Secretary, Transport
- Principal Secretary, Medical Education and Research
- Secretary, Information and Public Relation

### Key actions taken under the guidance of this group:



HRD and training (Medical Specialists, ENT Specialists, Anesthetists and paramedical/health staff) for all COVID Hospitals (Level-II)



Requisite arrangements regarding materials supplies, furniture, fixtures, equipment and budget for all COVID Hospitals (Level-II)



Infrastructure (repair/renovation) for COVID Hospitals (Level-II)



Protection of medical staff (doctors, paramedical and health staff), arranging for quarantine and isolation facilities



Requisite number of doctors/medical/paramedical staff were assessed and trained for COVID Isolation centres



IT services deployed for contact tracing, home quarantine enforcement



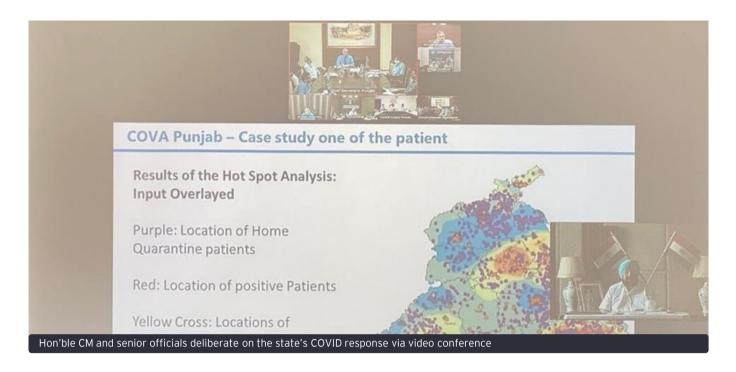
Surveillance (of all households in the identified hotspots) completion and testing, tracing and tracking of contacts of suspected/ confirmed cases



Arrangements of temporary shelters and provisions of food etc. for poor and needy people, including migrants stranded due to lockdown



Facilitated various other tasks such as: established helplines to address medical queries through District Control Rooms, wheat harvest and procurement, inspection of Mandis, review of situation in containment/buffer zones established in areas of confirmed positive deaths, ensuring use of COVA Application, organizing IEC activities (posters and videos) in schools, promoting cleanliness of public places/offices, overseeing proper quarantine arrangements in jails.



#### State COVID-19 Control Room

#### Head:

Rahul Tiwari, Secretary Employment Generation and Training

#### Members:

- Sumit Jarangal, M.D. PSIEC
- Vipul Ujjwal, JDC IRD
- Ravi Bhagat, Special Secretary, Governance Reforms
- Amit Talwar, Additional Secretary, Water Supply and Sanitation
- Rahul Gupta, Joint Secretary, Agriculture
- Rajdeep Kaur, Deputy Secretary, Information and Public Relations
- Karandeep Singh, Deputy Secretary, Water Resources
- Rakesh Singla, Deputy Director, Food, Civil Supplies and Consumer Affairs
- Harjit Kaur, Deputy Director, Food, Civil Supplies and Consumer Affairs
- · Piyra Singh, Assistant Transport Officer
- Two officers to be nominated by Director Health Services Office

#### Key actions taken:



Compiled daily report on:

- Disease treatment
- Cases reported positive-21 (District-wise)
- Positive Cases (Local and outside returnees)
- Contact tracing
- Outward movement by trains
- Curfew management (Law and Order)
- Transportation
- Helplines
- Food and rehabilitation (migrant labour, local population)
- Supply of essentials



Member of the team delivers video address updating citizens on status report daily on social media



#### State Public Health Advisory Group

#### Chairperson:

Dr. K.K. Talwar

#### Members:

- Dr. Raj Bahadur, VC Baba Farid University of Health Sciences
- Dr. Rajesh Kumar
- · Abhinav Trikha, Director Treasuries and Accounts
- Dr. Rajesh Bhasker (Member-Convener)

#### Key actions taken:



Issued advisories on various issues pertaining to COVID-19



Advised the state on policy matters such as testing strategy for COVID-19, policy on returnees from within the country as well as abroad, and also on matters related to home/institutional quarantine and isolation



Advised conducting studies to determine the sensitivity and specificity of Rapid Anti-body test kits, and suggested that if found to be valid, these kits should be used for surveillance purposes and not as a diagnostic test



Facilitated the assessment of Level II COVID-19 facilities in all districts with the support of the Community Medicine Head Of Departments of the Government Medical Colleges to understand the infrastructural and human resource availability



Offered technical support to Government of Punjab in various matters related to the pandemic in Punjab such as status of the pandemic, surveillance, testing, etc. to facilitate the decision-making processes

#### 3. Committee Details



#### Health Sector Response and Procurement Committee

#### Chairperson:

Vini Mahajan, Chief Secretary, Punjab

#### Members:

- Anirudh Tiwari, Additional Chief Secretary, Development
- Anurag Aggarwal, Additional Chief Secretary, Health and Family Welfare
- KAP Sinha, Principal Secretary, Finance
- D.K Tiwari, Principal Secretary, Medical Education and Research
- Kumar Rahul, Secretary, HFW (Member-Convener)
- Ravi Bhagat, Special Secretary, Governance Reforms
- Dr. K.K. Talwar (Professional Advisor)
- Dr. Raj Bahadur (Professional Advisor)

#### Key actions taken:



Drafted protocols on:

- a) Re-testing of samples
- b) Symptoms in patients that should be used by district administrations to decide the level of facility (Level I, Level II, level III) the patient gets admitted to.
- Home isolation for asymptomatic/ mildly symptomatic patients where feasible



Testing increased in the three labs in the state (at Government Medical Colleges in Amritsar, Patiala and Faridkot) to 9000+ tests daily



Constituted supportive committees from Medical Colleges to visit assigned districts and assess facilities in the COVID Health Centres



Assisted Department of Health and Family Welfare (DoHFW) in:

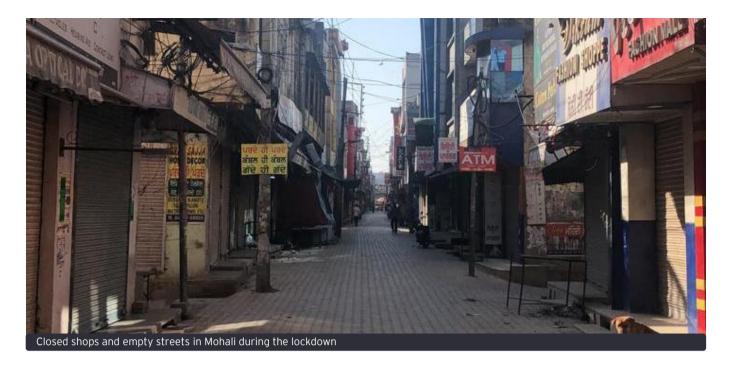
- releasing all health protocols and guidance to CCIC.
- providing training of doctors and staff
- providing medicines and protective kits



Government utilised DMC, Core Diagnostics at INR 2500/- per test with provision of doorstep delivery of the sample to the lab by the Government. All ICMR approved labs in the state were offered Rs 2,500 per sample



MOUs were signed by the DoHFW with private hospitals for Level II and Level III facilities. The Government paid the private hospitals either at CHGS charges or a fixed amount at INR 5000/- per bed with ventilator or INR 3000/- per ICU bed without ventilator for non- NABH hospitals



#### Lockdown Instructions and Implementation Committee

#### Chairperson:

Satish Chandra, Additional Chief Secretary, Home Affairs & Justice

#### Members:

- Dinkar Gupta, Director General Police
- K. Siva Prasad, Principal Secretary, Food, Civil Supplies and Consumer Affairs and Transport
- Alok Shekhar, Principal Secretary, General Administration and Co-ordination (Member-Convener)
- · Vivek Pratap Singh, Secretary, Personnel
- Sibin. C, Director, Treasuries and Accounts & Special Secretary, Health & Family Welfare
- Ishwar Singh, Additional Director General of Police (L&O)

#### Key actions taken:



As on 16th April 2020, 5970 FIRs were registered and 8662 persons arrested for violation of curfew. There was adequate deployment of police force on the ground. The total deployment: 46,576 comprising of 443 gazetted officers and other ranks.



Movement of essential commodities was quite satisfactory, daily about 400 vehicles either entered or exited the state



The sealing of clusters and containment zones was done in a very systematic manner



As on 16th April 2020, 6,72,812 applications were made, out of which 22,347 e-passes for curfew/lockdown were issued, 35,869 applications are pending and 4,21,304 applications have been rejected



The committee reviewed all arrangements related to security and enforcement of law and order and all measures required for effective management of curfew/lockdown



#### Interstate Inbound Travellers Monitoring Sub Committee

#### Members:

- Ishwar Singh, Additional Director General of Police (L&O)
- Parveen Kumar Thind, Labour Commissioner
- Tushar Kanti Bahera, Chief Conservator Forests (Plains)

#### Key actions taken:



Punjab provided assistance to migrant workers who wished to go back to their home states in various parts of India through **Shramik Special Trains** 



State Nodal Officers were appointed to coordinate with their counterparts in different states to convey the requirements and understand their concerns and to liaise with the Railway authorities to plan and schedule trains based on the inputs from the field



The trains started moving on May 5, 2020. As of 26<sup>th</sup> May 2020, a total of 351 trains have gone to different parts of the country



As of 26<sup>th</sup> May 2020, Punjab has facilitated more than 4.5 lakh migrants to reach their respective homes. The rail fare was fully paid by the GoP and close to INR 35 crore has been paid to Railways



State buses were used to ferry passengers from districts and all passengers were medically screened and only those who were found to be asymptomatic were allowed to board the trains



The Forest and Labour Department nominated District level Nodal officers who coordinated all issues relating to inward movement of people to Punjab



The officers ensured that details of people coming from outside the state, at following places is shared with officials of destination districts of persons concerned:

- 15 Major and 16 Minor Inter-State Nakas
- All six Airports in Punjab
- All Railway Stations in Punjab, where trains are running



#### **Media and Communication Committee**

#### Chairperson:

Rahul Tiwari, Secretary, Employment Generation & Training

#### Members:

- Gurkirat Kripal Singh, Secretary, Information and Public Relations
- Ravi Bhagat, Director Information and Public Relations (Member-Convener)
- Praveen Kumar Thind, Labour Commissioner
- Vipul Ujjwal, Director Rural Development & Panchayats
- Dr. Rajesh Bhaskar, Programme Officer, Pulmonary Medicine

#### Key actions taken:



DIPR has incurred an expenditure of INR 1.52 crore on print media campaign alone since 21st March 2020. Expenditures have been committed on the campaigns run in the electronic media, IVRS messaging and SMS



Media Communication Portal was developed by Directorate of Governance Reforms, Punjab to upload and disseminate important information pertaining to COVID-19 and it may be accessed at <a href="http://covidhelp.punjab.gov.in/">http://covidhelp.punjab.gov.in/</a>



It was decided to undertake the following advertisement activities:

- Advertise in leading newspapers requesting people to donate liberally to the Chief Minister's COVID Relief Fund
- Full page advertisement on FAQs
- Chief minister's appeal to take precautions in 5 leading newspapers
- SMS message of assurance to the farmers, migrant workers in the state
- Relay of advisory and animated videos on television channels
- Broadcast of FAQs on All India Radio and 94.3 FM
- Publicity regarding the helplines for citizens and farmers established in various districts
- SMS message requesting residents to watch out for home quarantine violations



DIPR was asked to ensure adequate number of press notes in each district highlighting the efforts of the state government. These press notes were broadcasted extensively on social media as well.



Informational films and radio jingles prepared and disseminated to the public



#### **Agriculture and Food Committee**

#### Chairperson:

Anirudh Tiwari, Additional Chief Secretary, Development

#### Members:

- K. Siva Prasad, Principal Secretary Food, Civil Supplies & Consumer Affairs
- Vivek Partap Singh, MD, Punjab State Warehousing Corporation
- Varun Roojam, MD Markfed
- · Ravi Bhagat, Secretary, Punjab Mandi Board (Member-Convener)
- Dilraj Singh, MD PUNSUP
- Anindita Mitra, , Director Food Civil Supplies and Consumer Affairs, MD, PUNGRAIN

#### Key actions taken:



The wheat arrival at all the purchase points of PMB was well-regulated so that it was evenly spread across the procurement season. The calculation of the wheat quantity to be allowed each day at the purchase point was carefully calibrated.



To regulate the arrival of wheat, additional mandis were needed and therefore rice mills were notified as mandis, limiting farmer footfall



A 30-member Wheat Procurement Control Room was set-up at the Mandi Board office in Mohali. Each district was assigned a particular helpline number and operator for farmers/arthiyas/stakeholder



For effective implementation and transparency, an arthiya-kissan Online Pass System by PMB was put in place to issue passes online to the arthivas. PMB had 27,000 licenced arthiyas that catered to about 7-8 lakh farmers. The wheat arrival was regulated by issuing online physical passes for farmers 72 hrs in advance



All mandi yards of procurement centres were divided into 30'X30' blocks large enough to accommodate a heap of wheat up to 90-100 quintal



arrangement for cleanliness/fumigation of mandis, clean civic amenities such as toilets, drinking water, sanitizers, clean resting places etc. was ensured, including:

- 1,124 Hand free hand washing stations
- 35,000 Litre sanitizers for Mandi Operations
- 1.5 lakh mask (3 ply) and 9000 N-95
- 200 first aid kits, gloves and medicines
- 12.65 lakh Litre of Sodium Hypochlorite from Punjab Alkalis for fumigation in mandis



**Relief for Migrant Workers Committee** 

#### Chairperson:

Satish Chandra, Additional Chief Secretary, Home Affairs and Justice

#### Members:

- V. K Janjua, Additional Chief Secretary, Labour (Member-Secretary)
- K. Siva Prasad, Principal Secretary, Food, Civil Supplies & Consumer Affairs and Transport
- Sarvjit Singh, Principal Secretary, Housing and Urban Development
- · Krishan Kumar, Secretary, School Education
- Rahul Tiwari, Secretary, Employment Generation and Training

#### Key actions taken:



367 shelter homes and relief centres have been established where about 2,600 labourers were housed and served cooked food. These centres are at Pathankot, Patiala and Ropar



A detailed format was received from the Government of India and instructions were sought from the office of Chief Minister regarding enumeration of migrant labourers



The state government created a portal on which migrant workers were asked to register themselves for facilitating their movement to their home states. As on 19th May 2020, a total of 17,29,034 migrant workers have registered themselves. They were sent to their respective home states through trains and buses



There were complaints of non- distribution of ration bags. The matter was brought to the notice of Department of Food and Civil Supplies



The matter of payment of full wages to labourers during lockdown was referred to Chief Minister and Chief Secretary for directions



#### **Goods Transport Committee**

#### Chairperson:

K. Siva Prasad, Principal Secretary, Transport

#### Members:

- Vikas Pratap, Principal Secretary, Public Works (Building & Roads)
- Dr. Naresh Arora, ADGP, Punjab, (Crime)
- Amarpal Singh, State Transport Commissioner (Member-Convener)
- Anindita Mitra, Director Food Civil Supplies and Consumer Affairs, MD, PUNGRAIN

#### Key actions taken:



Twelve facilitation control rooms for goods vehicles were operationalized to handle intra and inter-state issues related to goods vehicle movement and also to ensure the availability of transportation facilities to the users



Packed food and water for truckers at select fuel stations, *Dhabas*, Gurudwaras and toll plazas on National and State Highways was ensured



Repair/ maintenance shops for goods transport vehicles, tractors, combines, harvesters etc. were operationalized in the state both at private and dealer level.



Streamlined issuing e-passes to the organizations dealing with essential commodities/FMCG goods/ pharmaceutical and e-Commerce with the help of e-governance foundation of Govt. of India. Till date, 102 e-passes have been issued to such organizations



Smooth movement of food grains from Punjab to the recipient states by mobilizing the task force of RTAs. Till date, approx. 1100 wheat/rice specials have moved out by usage of approx. 225 trucks for each special



Regularly monitored the distribution of dry ration packets to migratory labour, needy persons. Till date, approx. 15 lakh dry ration packets have been distributed to economically weaker section of the society



The state procured approx. 107 lakh MT of wheat. The procurement operations with respect to transportation were constantly monitored



#### Monitoring Essential Commodities Sub-Committee

#### Chairperson:

Anindita Mitra, Director Food Civil Supplies and Consumer Affairs, MD PUNGRAIN

#### Members:

 Simarjot Kaur, Additional Director, Food, Civil Supplies and Consumer Affairs (Member-Secretary)

#### Key actions taken:



In constant touch with major industrial associations like FICCI, CII and associations in the field of Pharmaceuticals, Food and other Essential Commodities, FMCG firms like Walmart, More, Metro, Varun Beverages (PepsiCo) etc. along with Amazon, Flipkart etc. and courier service firms like Bluedart, DHL etc. for constant follow ups and to resolve any grievances



Calls were made daily via tele-calling to different associations at distributor, wholesaler and retailer level. Issues were captured and resolved on a day-to-day basis. The stakeholders were contacted through one-to-one and conference calls to resolve the issues and to review the evolving situation



Earmarked Helpline no: 01722684000 and email: goodscovid19@gmail.com for registering grievances with respect to all kind of issues being faced by the transporters of essential goods during lockdown/curfew



As on 8th May 2020, a total of 1136 communications have been attempted by the committee and 259 issues resolved, with zero pendency



For monitoring of essential commodities like flour, pulses, edible oil, vegetables like onion, potato in the open market, regular feedback system was devised by telecalls, SMS relay system to the wholesalers and retailers in the State.



Monitoring of wholesale and retail prices of 22 essential commodities was taken up by the committee



15 lakh dry ration packets distributed to economically weaker section and monitoring of free distribution of food grains allocated under PMGKAY



#### **COVID Care Centre Committee**

#### Chairperson:

Satish Chandra, Additional Chief Secretary, Home Affairs and Justice

#### Members:

- Jaspreet Talwar, Principal Secretary, Water Supply and Sanitation and in addition Director, MGSIPA
- Hussan Lal, Principal Secretary, Tourism & Cultural Affairs, Sports & Youth Services
- Ishwar Singh, ADGP, Punjab, (L&O)
- Rahul Tiwari, Secretary, Employment Generation and Training
- Rajat Agarwal, Chief Executive Officer, Invest Punjab
- Pradeep Kumar Aggarwal, Chief Administrator GMADA (Member-Convener)
- Isha Kalia, Special Secretary, Health & Family Welfare
- Tanu Kashyap, MD Punjab Health System Corporation

#### Key actions taken:



Hospital beds were procured as per the guidelines of Punjab Health System Corporation. The committee was given the mandate of 20,000 beds. 100 beds each were provided to Fazilka, Muktsar, Tarantarn, Mansa and Sangroor



The following issues were taken up by DoH&FW:

- Issued protocol for quarantine of Medical HR with timelines
- Issued SOPs for effective management of patients in CCCs. It covered the procedure from arrival of patient at the CCC, registration, consultation with doctor/ counselor, medical examination and record, administration of medicines, keeping track of patient's vitals, referral, discharge etc.
- Reviewed the norm of Medical Specialist currently fixed for CCCs and issue clarification regarding the same



Regarding the provision of Lab facility at CCCs, Hub and Spoke Model is being used for collection and testing of samples



#### Augmenting Human Resource and Capacity Building Committee

#### Chairperson:

A. Venu Prasad, Financial Commissioner, Taxation

#### Members:

- Anurag Verma, Principal Secretary, Technical Education & Industrial Training
- D.K Tiwari, Principal Secretary, Medical Education & Research (Member-Convener)
- Jaspreet Talwar, Principal Secretary, Water Supply & Sanitation and in addition Director, MGSIPA
- Hussan Lal, Principal Secretary, Tourism & Cultural Affairs, Sports & Youth Services
- Krishan Kumar, Secretary, School Education
- Vivek Pratap Singh, Secretary, Personnel
- Pardeep Kumar Aggarwal, Chief Administrator GMADA
- Sumeet Jarangal, MD PSIEC
- S.S Srivastava, ADGP Security Punjab

#### Key actions taken:



Counselling of public using COVA App and Helpline. As of 27th May 2020, 226 counsellors were identified and briefed about their duties. Data base of counsellors with name of their district and mobile number was shared with Helpline Number 104



Various departments like Revenue, Municipal Corporation, Local Bodies, Rural Development, Education Department, Agriculture Department, Co-operatives, Panchayat Secretaries and Health Department ensured that all employees register on IGoT software and get trained



Booklet material in Punjabi prepared for COVID Care Centres: Level I, II, III. Facilitator's guide for frontline workers in IGoT available in Punjabi



Online portal for registration of volunteers' staff opened regarding shortage of staff especially doctors.



District training Nodal Officers appointed, trained by District Family Welfare Officers and their contact details were shared



#### Upgradation of Health Structure Infrastructure Committee

#### Chairperson:

Vikas Pratap, Principal Secretary, Department of Public Works

#### Members:

- Hussan Lal, Principal Secretary., Tourism and Cultural Affairs, Sports and Youth Services
- Jaspreet Talwar, Principal Secretary, Water Supply and Sanitation and in addition Director, MGSIPA
- Tanu Kashyap, Managing Director, Punjab Health Services Corporation (Member-Convener)

#### Key actions taken:



Viral testing labs at 4 different locations to be set up and executed by PWD



Funds aggregating INR 13.60 crore (approx.) was sought from State Executive Committee for SDRF funds for the following works:

- In Govt. Medical Colleges at Patiala and Amritsar under the Department of MER, work amounting to INR 145.93 lakhs is being executed by PWD and work amounting to INR 86.50 lakhs is being executed by DWSS
- INR 21.53 lakh were issued to Chief Engineer Ludhiana as a part of these funds

- The work related to repair and maintenance in District Hospitals and Sub-divisional Hospitals under DoH&FW amounting to INR 318.31 lakhs is being executed by PWD and work amounting to INR248.31 lakhs is being executed by DWSS
- In Community Health Centres, work amounting to INR 345.22 lakhs is being executed by PWD and work amounting to INR 158.34 lakhs is being executed by DWSS
- PHSC proposed work of INR 36.40 lakhs in three hospitals and three drug ware houses are being executed by PHSC



Approval for following funds is being sought:

INR 85.21 lakhs for the additional work from SEC: INR 22.85 lakhs (in DHs and SDHs), INR 10.55 lakhs in other facilities, INR Rs.51.81 lakhs (DH Bathinda and CHC Kairon)



#### Tele-Counselling Helpline Committee

#### Chairperson:

Raji P. Srivastava, Principal Secretary, Social Security, Women & Child Development

#### Members:

- D.K. Tiwari, Principal Secretary, Medical Education & Research
- Rahul Bhandari, Secretary, Higher Education
- Rahul Tiwari, Secretary Employment generation & Training
- Diprava Lakra, Director, Social Security, Women & Child Development (Member-Convener)

#### Key actions taken:



A toll-free Tele-Counselling Helpline 1800-180-4104 was implemented by the Department of Governance Reforms to connect with a network of senior counselling experts and to get medical advice on COVID-19, other health-related concerns and mental health counselling



The helpline served to reduce panic and anxiety amongst the public due to Corona related and general medical conditions and inability to reach doctors in non-emergency cases due to the lockdown. Around 200 doctors and around 170 counsellors have been engaged



A startup company 'Startups v/s Covid-19', a collective representation of startups and active citizens was engaged to implement the solution on pro-bono basis



Accorded financial approval to make payment to the service provider as per the actual bills



Coordinated with call centres of the State Government for assisting volunteers, faculty, students to counsel any person in Punjab



#### Food Grain Procurement Management Committee

#### Chairperson:

K. Siva Prasad, Principal Secretary, Food Civil Supplies and Consumer Affairs

#### Members:

- Vivek Pratap Singh, Managing Director, Punjab State Waterhousing Corporation
- Arshdeep Singh Thind, General Manager, Food Corporation of India, Punjab Region Chandigarh
- Varun Roojam, Managing Director, MARKFED
- · Ravi Bhagat, Secretary, Punjab Mandi Board
- Dilrai Singh, Managing Director, PUNSUP
- Anindita Mitra, Director, Food and Civil Supplies, Managing Director, PUNGRAIN (Member-Convener)

#### Key actions taken:



Reviewed and coordinated all arrangements related to procurement of food grain in the state during COVID-19 pandemic



Ensured the implementation of IT Systems during the procurement to enable physical distancing and management of market yards and storage points



Reviewed supply position of bales and tackled challenges due to lockdown restrictions. Decided that all jute bales of previous seasons whose claims not sustained, be got verified from FCI



Escalated matter of lackluster wheat and shriveled, broken grains due to unseasonal rains with Gol, who then got samples of wheat tested in districts of Patiala, Fatehgarh Sahib and Mohali



Directed MDs of all procurement agencies to speed up the lifting of procured wheat and ensure timely generation of advices for the payment of procured wheat



#### **Expenditure Appraisal Committee**

#### Chairperson:

KAP Sinha, Principal Secretary, Finance

#### Members:

- Jaspal Singh, Principal Secretary, Planning
- Alok Shekhar, Principal Secretary, General Administration
- D.K. Tiwari, Principal Secretary, Medical Education and Research
- Kumar Rahul, Secretary, Health and Family Welfare
- V.N. Zade, Secretary, Expenditure (Member-Convener)
- Rajiv Prashar, Special Secretary, Revenue

#### Key actions taken:



Scrutinised all proposals for disbursements of funds (above INR 1 crore) from the State Disaster Relief Fund related to the COVID-19 pandemic

#### Data Analysis Group

#### Convenor:

Ajoy Sharma, Secretary, Dept. of Local Government and CEO, Punjab Municipal Infrastructure Development Company

#### Members:

- Rajesh Kumar, Former Head, School of Public health, PGIMER
- Somitra Kumar Sanadhya, Head of the Department of Computer Science, IIT Ropar
- Sarang Deo, Professor of Operations Management, ISB

#### Key actions taken:



Analysed the data pertaining to COVID-19 and presented its findings to the COVID-19 management group

Tackling Lockdown related challenges





## **Chapter Flow**

Introduction

Imposition of lockdown in Punjab

Essential services operating during Lockdown 1-4 and unlock 1.0

Departments providing essential services as per MHA guidelines

Welfare of the police personnel: Health insurance, mobile clinics, protective gear, provision of medicines and food

Police workforce going beyond the call of duty: distribution of food and essential items Addressing domestic violence against women and other initiatives

## Highlights





**First state** to impose a full curfew across the state after imposition of a complete lockdown



**45,000+** police personnel was deployed as the frontline force for imposition of lockdown



**12,000+** Civil volunteers deployed as frontline force for imposition of lockdown



**22 Lakh+** curfew e-pass requests recorded for smooth movement during lockdown



**20 Lakh+** calls received on the 24\*7 emergency helpline 112



**114 million** total food units distributed by police to the needy

## Tackling lockdown related challenges



#### 1. Introduction

Given increased fears about the threat of COVID-19, the Government of Punjab announced a complete lockdown on 22<sup>nd</sup> March 2020. On 23<sup>rd</sup> March, the government imposed a curfew (section 144) as a measure to enforce the lockdown effectively, making it the first state in India to adopt such stringent means to stop the spread of COVID-19. Enforcement of a complete lockdown, with exemption of some essential services, necessitated people to stay indoors and take proper precautionary measures in everyday life.

For the provision of essential services amidst curfew, Government of Punjab through its various departments also complied to the MHA order and issued its guidelines and advisories to ensure minimum transmission and maximum safety of its citizens. Conscientious efforts were made by the departments to ensure steady supply of essentials keeping a check on the black-marketing and upsurge in rates. Safeguarding the health and physical well being of the staff involved in the provision of essential services was also prioritised. Every department involved made sufficient provisions to corroborate with safety standards, physical distancing and other guidelines. In such a situation, the police have a critical role to play. The strict enforcement of the curfew restrictions was primarily the responsibility of the Punjab Police,

but in addition, they also adopted the role of a service delivery, citizen-centered agency. Police personnel were at the forefront of the battle, ensuring strict compliance with the lockdown while working hard to limit disruption to essential services.

During this time of collective hardship, the populace at large was looking up to the police department for professionalism, protection, assistance and guidance. The department made sure that the lockdown was adhered to with minimum hardship to all communities with public trust and support. The police were the key ground-level liaison point for essential services providers going for their work and keeping supply chains in motion. The chapter further presents the imposition of curfew, management of essential services and role of police in maintaining law and order.

The chapter presents the imposition and enforcement of lockdown, provision of essential services and the initiatives taken by Punjab Police to curb virus transmission and ease hardship during the lockdown period.

#### 2. Imposition of lockdown in Punjab

One day after the state-wide lockdown was imposed, the government imposed Section 144 in the state, as an emergency measure to tackle the situation. Section 144 was imposed preventing more than 10 people from getting together at a public space at any given time. It was further ensured that essential goods and services like electricity, water and municipal services, banks other E-commerce such as home delivery, groceries will be operational. Adequate supplies of essential goods were made available at reasonable prices at all times. During the lockdown, all private establishments had to remain closed (shops, offices, factories etc), and no public transport, including taxis, auto rikshaw's etc. were permitted.

In addition to Electricity, Water and Municipal Services, Banks and ATMs, Print and Electronic Media, Telecom/Internet and Cable operators and concerned agencies, Postal services, courier services, essential IT services, along with E-Commerce and its home delivery, Shops of Food, Groceries, Milk, Bread, Eggs, Fruit, Vegetable, Meat, Poultry, Fish etc.(including departmental stores and supermarkets) and all other daily needs were open during Lockdown 1. Other than this, all Hospitals, Nursing Homes, Doctors, Homeopaths, Chemist shops, Optical stores and Pharmaceuticals manufacturing, Petrol pumps, LPG gas, Oil agencies, petroleum refineries & depots, petrochemical were also exempted.

In order to ensure strict implementation of the restrictions, Deputy commissioners of all the districts were made responsible. The Health Department of the state ordered all people to stay at home unless necessary. Seeking the cooperation of the people in these testing times, the Chief Minister pointed out that a State Control Room was established for ensuring a coordinated effort amongst different departments of the State. Similar Control Rooms have also been established at all District Headquarters. Helplines were launched for people to reach out to the Government on 181 and 104.

#### 2.1 Essential services

The National Disaster Management Authority (NDMA) in exercise of their powers of the Disaster Management Act, 2005, directed the National Executive Committee (NEC) to take lockdown measures so as to contain the spread of COVID-19 in the country. Imposition of the lockdown left the citizens with several concerns and queries on various fronts of mobility, functioning and safety. As the educational institutions and private offices were already asked to be adjourned, MHA through its Order No. 40-3/2020, dated 24th March, 2020 provided the required clarity on what services and spaces shall remain functional (Indicated further). Keeping the safety of the citizens in urban and rural parts of the country as a priority, every State Department ensured strict compliance in the implementation of the order. Additional committees and task forces were formed at the State, District and block level to assess and implement the required activities.

13 Mar'20	Punjab governments declared holidays in all schools and colleges till 31 <sup>st</sup> March
16 Mar'20	Punjab government issue an advisory to close gyms, restaurants, etc
20 Mar'20 19 Mar'20 16 Mar'20 13 Mar'20	Punjab School Education Board postponed all Board Exams of 10th and 12th classes.
20 Mar'20	Punjab government also shut down public transport in state from midnight of 20 <sup>th</sup> March
22 Mar'20	Punjab government declared complete Lockdown in state till 31st March 2020, except Emergency services
23 Mar'20	Punjab Government imposed full curfew across Punjab becoming the first State to impose full curfew
15 Apr'20	Lockdown 2.0 announced by the Government of India
L8 May'20 4 May'20	Lockdown 3.0 announced by the Government of India
18 May'20	Lockdown 4.0 announced by the Government of India
1 Jun'20	Unlock 1 announced by the Government of India

# Essential services operating during lockdown (1-4) and Unlock 1.0 as per MHA guidelines

1.0

### Lockdown 1.0

Period: 23 March to 15 April 2020 | 9 pm to 5 am (Night Curfew)

What remained closed	Exceptions					
<ul> <li>Offices of the Government Of India</li> <li>Autonomous/ Subordinate Offices and Public Corporations</li> </ul>	<ul> <li>Defence services</li> <li>Central armed Police forces</li> <li>Treasury</li> <li>Public utilities (including petroleum, CNG, LPG, PNG)</li> <li>Disaster management</li> <li>Power generation and transmission units,</li> <li>Post offices,</li> <li>National Informatics Centre</li> </ul>					
<ul> <li>Offices of the State/ Union Territory Governments</li> <li>Corporations</li> </ul>	<ul> <li>Police</li> <li>Home guards</li> <li>Civil defence</li> <li>Fire and emergency services</li> <li>Disaster management</li> <li>Jail</li> <li>Treasury</li> <li>Electricity</li> <li>Water, sanitation Municipal bodies</li> </ul>					
Commercial and private establishments	<ul> <li>Shops including ration shops (under PDS), dealing with food, groceries, fruits and vegetables, dairy and milk booths, meat and fish, animal fodder.</li> <li>Banks, insurance offices, and ATMs.</li> <li>Print and electronic media</li> <li>Telecommunications, internet services, broadcasting and cable services.</li> <li>IT and IT enabled Services only (for essential services)</li> </ul>					
Industrial establishments	<ul> <li>Manufacturing units of essential commodities</li> <li>Production units which require continuous process after obtaining required permission from the state government</li> </ul>					

What remained closed	Exceptions					
All transport services	<ul><li>Transportation for essential goods only</li><li>Fire, law and order and emergency services</li></ul>					
Hospitality services	<ul> <li>Hotels, homestays, lodges and motels which are accommodating tourists and persons stranded due to lockdown, medical and emergency staff, air and sea crew</li> <li>Establishments used earmarked for quarantine facilities</li> <li>In case of funerals, congregation of not more than twenty persons will be permitted.</li> </ul>					
<ul> <li>All educational, training, research. coaching institutions</li> <li>All places of worship shall be closed for public. No religious congregations will be permitted, without any exception.</li> <li>Social, political, sports, entertainment, acade mic, cultural, religious functions/ gatherings shall be barred</li> </ul>	In case of funerals, congregation of not more than 20 persons were permitted					

## Lockdown 2.0

Period: 15 April to 3 May 2020 | 9 pm to 5 am (Night Curfew)

2.0

What remained closed	Exceptions
<ul> <li>Domestic and international air travel</li> <li>Passenger trains, buses, metro, taxis</li> <li>Interstate transport except for security and medical purposes</li> <li>Industrial and commercial activities</li> <li>Hospitality services</li> <li>Educational, training and coaching institutions</li> <li>Cinema halls, malls, gyms, bards, pools, entertainment parks, assembly halls, etc.</li> <li>All social, political, sports, complexes, religious places and other gatherings</li> </ul>	<ul> <li>Financial Services</li> <li>RBI and other RBI regulated financial markets and entities</li> <li>Banks, ATM and IT vendors for banking operations</li> <li>SEBI and capital and debt market services</li> <li>IRDAI and insurance companies</li> </ul>

#### What remained closed

- Domestic and international air travel
- Passenger trains, buses, metro, taxis
- Interstate transport except for security and medical purposes
- Industrial and commercial activities
- Hospitality services
- Educational, training and coaching institutions
- Cinema halls, malls, gyms, bards, pools, entertainment parks, assembly halls, etc.
- All social, political, sports, complexes, religious places and other gatherings

#### **Exceptions**

#### Commercial Services

- Print and electronic media
- Data and call centres for government activities
- CSCs at panchayat level
- E-commerce companies, e-commerce functions for non-essential items such as mobile phone, laptops, refrigerators etc.
- Courier services
- Cold storage and warehousing
- Establishment for quarantine facilities
- Self-employed services like electricians, plumbers, carpenters (after seeking permission from DA)

#### Movement of People

- Private vehicles for medical emergency services and for getting essential commodities
- In case of a four-wheeler, one passenger in the back seat beside the driver is permitted
- For two-wheelers, only one driver is permitted
- All personnel travelling to their workplace as exempted by State/UT/Local authority

#### Social services

- Home for children, juveniles, divyang (handicapped), elderly etc. will be allowed to function. This includes observation homes and aftercare homes
- Disbursement of social security pensions and provident fund by EPFO
- · Operation of Anganwadi

#### Industrial establishments

- Industries in rural areas
- SEZ and export-oriented units
- Industrial estates and industrial townships
- Manufacturing units of essential goods
- Industries producing IT hardware
- Food processing units, jute industries
- Coal and mineral production, O&G refinery and brick kilns in rural areas
- Construction activities including roads, irrigation projects, renewable energy projects and construction projects in municipalities
- All health and agricultural activities

3.0

## Lockdown 3.0

Period: 3 May to 17 May 2020 | 9 pm to 5 am (Night Curfew)

What remained closed	Exceptions
<ul> <li>Travel- Air, Rail, Metro</li> <li>Interstate buses</li> <li>Educational Institutes, Schools, colleges, Training and Coaching Institutions</li> <li>Hospitality Services, Cinema halls, Malls, gymnasiums, sports complex</li> <li>Social political cultural and other kind of gatherings</li> <li>Religious places/ places of worship</li> <li>Movement of Individuals (7pm to 7am)</li> <li>Movement of Persons above 65 year, Pregnant women &amp; children below 10 year</li> <li>Intra-District and Inter-District Buses</li> <li>Taxis and Cab aggregators</li> <li>Rickshaw and Auto Rickshaw</li> <li>Barber, salons, spa shops (both in Rural &amp; Urban)</li> </ul>	<ul> <li>Movement of Individuals (7am to 7pm)</li> <li>OPD (Government/ Private )</li> <li>4 wheeler: 1+2</li> <li>2 wheeler without pillion</li> <li>Goods traffic</li> <li>Rural Shops (9am - 1pm)</li> <li>Urban standalone, Neighbourhood &amp; Shops in Residential areas (9am - 1pm)</li> <li>Urban shops in Markets, Marketing complexes (9am - 1pm)</li> <li>Construction in Rural area</li> <li>Construction in Urban area</li> <li>Agriculture, Horticulture, Animal Husbandry, Veterinary (essential services)</li> <li>Bank &amp; Finance (9am to 1pm)</li> <li>Courier, Postal service (9am to 1pm)</li> <li>Essential Goods, IT, Jute, Packaging Industry</li> <li>Industry in Rural Area</li> <li>Industry in Urban Area (only in SEZs, EOUs, Industrial estates, Industrial townships)</li> <li>E-Commerce (for essential commodities)</li> <li>Government offices ( Defence, Health, Police, Fire)</li> <li>Other Central Government offices Yes 100% for Deputy Secretary and above, 33% Junior Staff</li> <li>Punjab Government offices as per DoPT Instructions</li> </ul>

## Lockdown 4.0

Period: 17 May to 31 May 2020 |

7 pm - 7 am (night curfew)

4.0

What remained closed	Exceptions					
Educational Institutes, Schools, colleges, Training and Coaching Institutions	<ul> <li>Inter-state movement of passenger vehicles (allowed with mutual consent of the States involved</li> <li>Intra-state movement of passenger vehicles allowed for persons specified as per the MHA guidelines issued on 17th May, 2020</li> </ul>					

#### What remained closed

- Hotels, restaurants and other hospitality services other than those used by the State Govt. for housing the stranded persons and for quarantine purposes
- Cinema halls, malls, shopping complexes, gymnasiums, swimming pools, entertainment parks, theatres, bars, auditoriums, assembly halls
- All social, political, sports, complexes, religious places and other gatherings
- Shopping malls

#### **Exceptions**

- Inter-state movement of passenger vehicles (allowed with mutual consent of the States involved
- Intra-state movement of passenger vehicles allowed for persons specified as per the MHA guidelines issued on 17th May, 2020
- Taxis and cab aggregators allowed subject to compliance of MHA guidelines and permission by the State Transport Department
- Bi-cycles, auto-rikshaws, two-wheelers and four-wheelers allowed subject to compliance of SoP issued by the State Transport Dept.
- Shops in main bazaars in both rural and urban areas allowed to function between 7 am and 6 pm (DA can exercise discretion in order to avoid crowding and staggering in front of shops)
- Barber shops and salon allowed to open subject to compliance standards issued by State Health Department
- All categories of industries allowed to operate in both urban and rural areas
- All construction activities without restrictions in rural and urban areas
- E-commerce: permitted for all goods
- Govt. and private offices allowed to open. Advised to allow minimal staff and to ensure to staggering of people
- No separate permission or passes required by industries or other establishments to resume operations
- Restaurants may be opened for take-home or home delivery services

5.0

Unlock 1.0

Period: 31 May to 30 June 2020 | 10 pm to 5 am (night curfew)

#### What remained closed

- The persons above 65 years of age, persons with co-morbidity, pregnant women and children below the age of 10 years are advised to stay at home
- Night curfew (9 pm to 5 am): The movement of individuals for all the non-essential activities shall remain prohibited between 9 pm to 5 am
- Cinema halls, gymnasiums, swimming pools, entertainment parks, theatres, bars, auditoriums, assembly halls and similar places.

#### **Exceptions**

- The movement of individuals for all the non-essential activities prohibited between 9 pm to 5 am
- Marriage related gatherings Number of guests not to exceed 50
- Funeral/last rites Number of persons not to exceed 20
- Restaurants may be opened for take-home or home delivery services
- Inter-State movement by trains allowed subject to the condition that the inward passengers would follow the SOP of the Health Department
- Domestic flights: Movement by domestic flights allowed subject to the condition that the inward passengers would follow the SOP of the Health Department

#### What remained closed

- Social/political/ sports/ entertainment/ academic/ cultural/ religious functions and other large congregations.
- Spitting in public places
- Consumption of liquor, pan, gutka, tobacco etc in public places is prohibited. However, there will be no restriction on their sale
- Religious places/places of worship for public Religious places/places of worship
- Hotels and other hospitality services Hotels and other hospitality services
- Shopping malls

#### **Exceptions**

- Inter-state movement of buses allowed with mutual consent of the States subject to compliance of the SOP which shall be issued by the Transport Department.
- Infra -State movement of buses allowed subject to compliance of the SOP which shall be issued by the Transport Department Punjab.
- Inter-State movement of passenger vehicles: Inter-state movement of passenger vehicles like taxis. cabs. stage carriers, tempo-travellers and cars permitted against selfgenerated e-pass
- Infra-State movement of passenger vehicles: Intra-state movement of passenger vehicles like taxis, cabs, stage carriers, tempo-travellers and cars allowed without any restriction
- Bicycles, rickshaws and auto-rickshaws allowed subject to compliance of the SOP as issued by the Transport Department
- 2-wheelers allowed subject to compliance of the SOP as issued by the Transport Department Punjab
- 4-wheelers allowed subject to compliance of the SOP as issued by the Transport Department. No pass was required for permitted activities like shopping, going to office and work place
- Inter-State movement of goods: no restriction on Inter-State movement of goods
- Social visits: no restriction on movement by persons within city or districts. However, such a movement was just for essential tasks and social visits, with no essential task shall be avoided and restricted. State Department of Health will issue a separate SOP
- All shops including shops in main bazars in both urban and rural areas allowed to open between 7.00 am to 7.00 pm.
   Liquor vendors shall however remain open from 8.am to 8pm.
   However, for shops situated in main bazars. Market complexes and rehri markets and other crowed places, district authorities could exercise their discretion and in order to avoid crowding shall stagger the opening of shops
- All categories of industries were allowed to operate in both rural and urban areas.
- Construction activities were allowed without any restriction in both the Urban and rural areas.
- Agricultural, horticultural, animal husbandry. veterinary services are allowed without any restriction.
- E Commerce activities were permitted for all goods
- Central Government and Private Offices allowed to open as per required strength without any restrictions except that compliance of physical and wearing of masks at all times. shall be ensured. If so required, the timings may be adjusted to work in small teams to ensure strict compliance of these restrictions
- All the Punjab government offices were open as per required strength. However, Head of the Office will ensure that there is adequate space for maintaining social-distancing norms. If the space is inadequate, the employees will be required to attend office by rotation.
- District authorities may however, in order to avoid crowding and congestion may stagger timings of various offices without curtailing the office hours

## Departments providing essential services as per MHA guidelines

Essential Services	Name of Departments								
	Health	DWSS	Food Supply	DLG	Cooperation	Education	DGR	Defence	Agri & Mandi
Supply of groceries			0		0		0		
Supply and maintenance of drinking water		0		0					0
Production and supply of milk & dairy related products					0		0		
Food processing					<b>⊘</b>				0
Production of supply of cattle feed and fodder					0		0		0
Loading & unloading of wheat & rice at Govt. FCIs			0		0		0	0	0
Transportation of essential commodities	0	0	0		<b>⊘</b>		0	0	0
Animal husbandry									
Agriculture & horticulture activities			0		<b>⊘</b>		0		0
Financial sector					0		0		
Public utilities	0	0		0			0		0
Health services	0			0		0	0		0
Medicines & pharmaceuticals	0						0		
Construction activities	0								0
Fruit & vegetables									0
Telecom & IT services	0			0		0	0		0
Media	0					0	0		0
Post office & courier							0		
Sanitation services	0	0		0					0

## Departments providing essential services as per MHA guidelines

Essential Services	Name of Departments										
	Animal Husb.	Police	Medical Edu.	Rural develop.	Indust ries	Labour	PWD	Jail	NRI	Employ ment	Water resource
Supply of groceries		0		0							
Supply and maintenance of drinking water		0		0							0
Production and supply of milk & dairy related products	0	0									
Food processing	0	0			0						
Production of supply of cattle feed and fodder	0	0									
Loading & unloading of wheat & rice at Govt. FCIs		0		0							
Transportation of essential commodities	0	0		0							
Animal husbandry	0	0									
Agriculture & horticulture activities	0	0									
Financial sector		<b>⊘</b>			0						
Public utilities		<b>⊘</b>	0	0	0		0		0		
Health services		0	0		0		0		0		
Medicines & pharmaceuticals		<b>⊘</b>					0	0			
Construction activities		<b>⊘</b>			0	0	0				0
Fruit & vegetables		<b>⊘</b>									
Telecom & IT services		0							0	0	
Media		0	0		0				0	0	
Post office & courier		0									
Sanitation services		0									0

#### 2.2 Enforcement, Law and Order: Role of Punjab Police



Image Source Scroll

45,000+

Police personnel deployed as frontline force

88,000+

Two and Four wheeler challans issued

12,000+

Civil volunteers deployed as frontline force

15,000+

protocol violators arrested

The Hon'ble Chief Minister, Captain Amarinder Singh provided his able guidance through which the DGP, Punjab appointed officers of the rank of IG, DIG and AIG as state level Police Coordinators, and ADGPs as State Level Police Supervisory Officers for coordinating various curfew related tasks. With the coordination of these officers across the districts, Punjab Police successfully implemented curfew /lockdown in the state by deploying more than 40,000 police personnel and 12,000+ civil volunteers.

The mammoth task of enforcing and monitoring the compliance with the COVID-19 lockdown protocols pertaining to physical distancing, home quarantine, curfew timings and so on was solely taken up by the Punjab Police. The frontline force deployed for the task was able to successfully enforce the lockdown across all the districts through innovative interventions that including digital media campaigns for generating awareness, 24x7 patrolling across all districts, establishment of open jails etc. The taskforce was also responsible for issuing fines and challans to protocol violators, monitor interstate truck movement, in addition to ensuring self compliance with the safety measures. By the end of May, the Punjab Police had already collected INR 9.72 Crore for violation of social/physical distancing and other COVID protocols, and INR 34 Lakh as challans.



2 Lakh+

people fined for not wearing masks

11,000+

FIRs registered during lockdown

12,000+

people fined for spitting at public places

37,000+

people taken to open jail





## Deployment of Village Police Officers for COVID-19

A massive door to door outreach campaign was launched by the Police Department through the recently deployed Village Police Officers (VPOs). As part of the VPO scheme launched in February 2020, VPOs were appointed in 12,700 villages. Following the marked success of the VPO scheme in the state, these officers were roped in to spread the awareness campaign in all the districts. Each village has a dedicated Village Police officer in the rank of Assistant Sub-Inspector/Head Constable/Constable. The VPOs were trained and tasked to educate people in their respective villages about the disease and the necessary precautions to prevent its spread and to bust any myths and misconceptions regarding the same. They were briefed by the District Police Chiefs to coordinate and liaise with the local civil administration and Health Department to ensure effective implementation of the lockdown and government's advisories on COVID-19 by all the people at the local level.

For better implementation at the grassroot level, meetings were conducted with the village Sarpanches, school Headmasters etc. With the help of the village youth, the VPOs majorly utilised social media to disseminate the Government's directives down to every household in the respective area<sup>1</sup>. With the help of the sarpanch and local authorities, 13270 villages in Punjab were under strict lockdown. The age-old practice of Community Policing (Thikhri Pehra) made a comeback in the villages of the state to curb the movement of people during lockdown.

#### Action against fake news

A special team headed by ADGP ranked officer was constituted by the police department to monitor all social media platforms and to check for any fake news or rumour affecting citizens during the lockdown. Following this, several cases of spread of fake news were also reported. The police issued orders under section 144 of the CRPC, and imposed a ban on spreading fake news and rumours.

FIRs were filed against the following crimes:

- Spreading fake videos and fake audio messages
- Creating panic by spreading fake news on WhatsApp regarding the death of a person due to COVID-19
- Spreading fake news regarding deployment of military
- Spreading communal strife through social media
- Seeking to mislead the people about the availability of critical medical equipment and to spread hatred against the state government
- Circulation of fake TikTok videos, unsubstantiated audio messages, forwards of provocative and false news

Strict penal action was taken against the offenders who attempted to exploit the current crisis by spreading mischievous and un-substantiated information, which created unnecessary panic and hardship to people. Punjab Police also appealed to the residents not to forward un-verified news to anyone as it spread fear/panic in the minds of residents.<sup>2</sup>

#### Box 1: Fake news advisory and initiatives

In order to effectively tackle and put an end to the fake news circulating on various digital platforms on COVID-19, the Punjab Police warned of strict action against those indulging in spreading unsubstantiated claims and fake news regarding COVID-19. The Department also issued a series of 'do's and don'ts against using mobile phones and social media platforms to spread unsubstantiated information.

The Director General of Police, IPS Dinkar Gupta also forewarned the public that those found guilty of indulging in spreading baseless rumours, malicious content or social media forwards shall be penalised and dealt with under the relevant provisions of law. Despite severe warnings against such acts, a total of **80 FIRs** were issued by the police on account of spreading fake news, sedition, misleading TikTok

videos, unsubstantiated audio messages, forwarded messages comprising of provocative and false content. As a counter measure to the fake news spread across the digital platforms, the Punjab Police also released a song on social media titled 'Fake di Khair Nahi', that translates to those spreading fake news shall not be spared.

The song was released on Twitter with an aim to educate people about the damages rendered to the society by fake news and advises to refrain against sharing them. The hashtag **#Fakedikhairnahi** gained instant popularity against the masses and created a feeling of unity as the entire State of Punjab rallied against COVID-19 and fake news. The video received over 1.2+ likes, 31.8 views and 300 comments crediting the Punjab Police for its unique initiative.





#### Innovations and social media campaigns

As the State of Punjab is aggressively combating with COVID-19, the Punjab Police brought in innovative approaches for educating the public and enforcing the COVID-19 protocols.

The taskforce integrated digital platforms and media for exhaustive communication and interaction with the citizens of Punjab. These interventions helped in the regularisation of access to essential services, counselling facilities, interstate travel and were mainly oriented towards contributing to citizen and police personnel welfare.

In order to enforce effective social policing and generate awareness on the state and central government guidelines regarding COVID-19, TikTok star Noor and her team in collaboration with the Moga police made several videos on social media which promote the usage of face masks, hand sanitizers and home quarantine protocols.

#### Mission Fateh

The Government of Punjab launched Mission Fateh on the Coronavirus alert application to encourage citizens to continue to observe the COVID-19 precautions and protocols to stop the transmission of the virus. The success of the campaign was solely dependent on consistent community participation and self-responsibility of the citizens towards one's family and nation. The Punjab police conducted innovative rallies across all the districts and also promoted the campaign on social media platforms in order to create awareness regarding the campaign.

The police taskforce in coordination with the volunteers across all the districts in rural and urban areas rendered their valuable service in enforcement of the state and central guidelines.

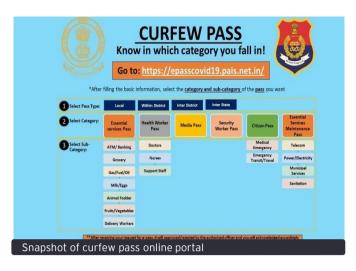


#### Other social media interventions

The unprecedented crisis resulted in the formulation of a digital strategy that helped disseminate easy to understand information. Social media was leveraged to enforce the lockdown effectively, keeping the mixed number of urban and rural population in purview, the strategy was to keep the citizens occupied with infotainment content. The Punjab Police initiated several digital campaigns on virtual platforms including TikTok, Sharechat, Facebook, WhatsApp and Twitter. The State police's TikTok account also showcased animation videos oriented to sensitise the audience on how to spend time productively during the lockdown, the need for social/physical distancing and information on accessible relief measures. This intervention has redefined communication strategies for the police force through the optimal mix of content communication, interactivity and information dissemination.

The latest campaign of Punjab Police was a series of captions with Bollywood songs themed on staying home. Without diluting the discipline in the messages, and to humanize the police force, these posters were endorsed by affable faces of real cops from across the state.







#### Issuance of Curfew Pass

In order to facilitate the access to essential needs to the general public and provide support to deal with medical emergencies, an e-pass facility for COVID-19 curfew was launched by police. The e-pass facility ensured smooth movement of essential goods and services and also helped citizens having medical emergencies. The facility was made available at <a href="mailto:epasscovid19.pais.net.in/">epasscovid19.pais.net.in/</a>. In this system, those eligible under different categories or having a medical emergency could fill in particulars along with their supporting documents and submit applications online, to obtain curfew passes.

Two officers were designated as "Curfew Pass Officers" in each Commissionerate/district across the state. These officers examined all the applications and made all endeavours to accept authentic applications which were supported by relevant documents. In all accepted cases, a link was forwarded to the applicant through which he/she can generate e-Pass on his/her smartphone and even print it if required. Other than the identification details of the person/ vehicle, the pass also contained a QR Code which was checked by police officers on duty.<sup>3</sup>

#### DIAL 112 - 24/7 emergency helpline

The Punjab Police scaled up its citizen support systemthe 112 helpline, to cope with any emergency raised out of the imposition of curfew/lockdown in the state in the light of COVID-19 crisis. To further improve its response time and cope with the increased pressure on 112 helpline, the Punjab Police augmented the capacity by adding 11 workstations, raising its capacity to 53. A total of 159 personnel was deployed at the station, working in three shifts. Operators from Punjab Police Saanjh Kendras and private BPOs were also roped in and provided training to join the 112 workforce.

#### 22 Lakh+

Curfew e-pass requests recorded

#### 20 Lakh+

### Calls received on the helpline

#### 7 Lakh+

E-pass requests approved

#### 16 Lakh+

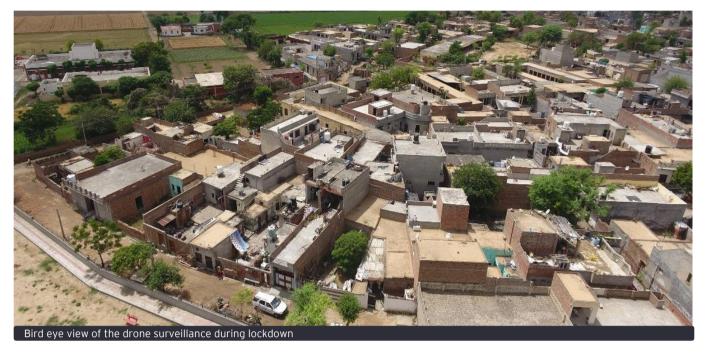
Helpline calls were resolved

During the lockdown, the average number of calls received on DAIL 112 increased to over 17,000 from 4000. Of these, around 60% related to COVID-19 related issues, including provision of essential commodities, emergency medical conditions & curfew related issues, curfew/lockdown, ambulance service, suspected individuals, among others.<sup>4</sup>

## Box 2: S.T.O.P COVID-19 online portal by SBS Nagar District Police

The SBS Nagar district police launched an online portal, S.T.O.P COVID-19 (Surveillance of Travellers Online Portal) on 6<sup>th</sup> May to keep the whereabouts of the entrants to the district at Police Naakas. This portal ensured that all the people entering the district from other states/districts were thoroughly checked upon medically too and their details to be filled electronically at one common platform. The app was helpful to remain vigilant about the persons having a travel history of other states or districts. Firstly, the medical team deployed at Naka medically examines the traveller and after that, all the details of the entrant were filled up in the tab, provided to each Naka. This portal was made functional in 14 interdistrict Naakas with the help of tabs, which stored complete details of the person entering the district (the place from which they started to their destination, vehicle type and number, whether they are symptomatic or not and their place of quarantine). This made a great difference to ensuring effective containment of COVID-19 in SBS Nagar district.<sup>5</sup>

#### **Drone surveillance**



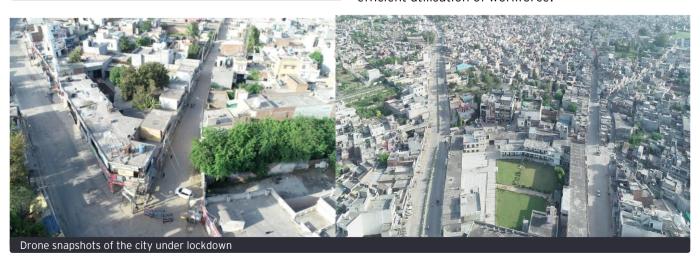


Drone is launched in Jalandhar

Punjab Police had deployed drones to intensify surveillance against lockdown violators. It also heavily cracked down on black-marketeers and hoarders amid reports of shortages of essential commodities. 178 drones were used for surveillance during the lockdown across 27 district wide locations to enable effectual monitoring across the State.

These drones were equipped with a public address system and surveillance camera which were also used to generate awareness regarding the lockdown as well as to capture images and videos, which helped in identifying areas witnessing the movement of people and vehicles.

The incorporation of drone surveillance was found to be highly effective in coverage of large areas for ensuring effective enforcement of curfew and for efficient utilisation of workforce.6



#### Box 3: Remembrance Wall in memory of Corona martyr ACP Anil Kohli

A Punjab Police officer, ACP Anil Kohli was a COVID warrior, who lost his battle for life on 18th April 2020 to the deadly virus while undergoing treatment at a private hospital in Ludhiana. Notably, he was the first police officer in the country to succumb to COVID-19. His first test for the infection was negative but he tested positive in the subsequent test on 12<sup>th</sup> April 2020. The ACP did not show any sign of improvement since he was hospitalised and finally passed away due to multiple organ failure. Kohli served Punjab Police and people of Punjab for over 30 years. A day before his death, the GoP had given its go-ahead to the hospital to conduct plasma therapy on the police officer. Following which the Mohali district administration on 18<sup>th</sup> April 2020 morning sent a fully-recovered coronavirus patient to the hospital to help treat ACP Kohli.7

The DGP paid tributes in the Bhog ceremony of Kohli and expressed profound grief and solidarity with the bereaved family. He also handed over an appointment letter to Paras Kohli s/o Anil Kohli and a cheque for financial assistance to deceased officer's wife, Palak Kohli. Due to COVID restrictions, more than 20,000 people and police officers (including ADGPs, IG/GIDs and all SSPs) from across the state joined the Bhog ceremony through live telecast on the internet.

The Punjab Police on 25th April launched a digital 'Remembrance Wall' to enable the colleagues, family, friends and admirers of deceased ACP Anil Kohli to pay their respects and homage to the brave corona warrior. The 'Remembrance Wall' has been gifted to the Punjab Police by a Gurugram based techno-media company 'ATechnos'. The entire digital project was conceptualised and created by Carol Goyal of Mogaé Media. The digital wall was hosted on the URL: www.inthelineofduty.in. Visitors to the wall can post messages in the memory of the valiant officer. The digital 'Remembrance Wall' also has a live map of Punjab where visitors can click on every district for live updates and videos on the work being done by the Punjab Police personnel in the service of the people of State.8





#### Box 4: #MainBhiHarjeetSingh

Harjeet Singh is a policeman whose hand was chopped off with a sword while he was imposing curfew restrictions in Patiala to stem the COVID-19 spread. A group of five to six armed criminals, who were travelling in a vehicle, attacked Harjeet Singh and three other police officers on 12<sup>th</sup> April 2020, leaving Singh's left hand severed in the clash. The group was asked to show the curfew pass which angered them, and they attacked police personnel and government employees deployed there with sharp-edged weapons.

The police officials displayed bravery, courage, patience and presence of mind, and immediately informed senior officers, sought reinforcements, and also evacuated ASI Harjeet Singh to the hospital along with his detached hand. At the same time, they also launched a chase of culprits. An FIR was registered and police parties dispatched for rounding up the assailants. The exercise was planned and led by SSP Patiala personally.

Ultimately, after an eight-hour-long complex operation, the detached left hand of Harjeet Singh was re-attached by Post Graduate Institute of Medical Education and Research (PGIMER) hospital in Chandigarh. In a swift operation, all the accused persons arrested on the same day, along with large recoveries of pistols, sharp-edged weapons, drugs and cash.

Harjeet Singh was later promoted to the rank of Sub Inspector from Assistant Sub Inspector in recognition of his exemplary courage, while three other police personnel involved in the incident awarded Director General's Commendation Disc.





To show everyone that any attack on the police officers and doctors, fighting COVID-19 on the frontlines will unite India together as one, the DGP Mr. Dinkar Gupta kicked off a Twitter campaign #MainBhiHarjeetSingh at 10 am on 27th April. As part of the campaign, the police personnel were exhorted to replace their name with Harjeet Singh on their badges. Besides creating massive goodwill for the police, the campaign had served to send a strong signal that an attack on even one police personnel would deem an attack on the entire force, which united against those trying to disrupt law and order. He hailed support for the campaign from across the country, with the police forces of many states expressing solidarity with the Punjab Police.

The campaign drew appreciation from the Hon'ble CM, who congratulated the Punjab Police for the thought-provoking initiative which could boost the morale of a large number of corona warriors across the country during these difficult times. The campaign ignited the Twitter world, climbing from #27 to Top 10 on trends by 1 pm on the same day. By 5 pm, more than 3 million people had joined the campaign and over 79,000 police officers from Punjab had changed their name badges to "Harjeet Singh" and posted messages & pictures on Social media. Harjeet Singh was discharged from the hospital after 18 days of treatment. He thanked doctors, nurses, paramedics and all the staff of PGI for taking good care of him. Before getting discharged, he was handed over his son's appointment letter with Punjab Police.

#### 2.3 Welfare of Police Personnel

The Punjab Police took necessary protective measures to ensure that all police personnel performing duties at the forefront, enforcing the lockdown to prevent the spread of coronavirus across the state, remain healthy and safe. The taskforce followed a rotational system of providing a weekly off/rest to the frontline personnel, with efforts to organise the deployment in such a manner that two days off can be guaranteed to all personnel, after every 10 days. The welfare wing of the Punjab Police as per the DGP's directions, instructed all districts and armed police units to withdraw police personnel who are suffering from chronic medical problems like high blood pressure, diabetes and other respiratory problems from frontline duties. women cops with children under 5 and those above 55 years of age.

Seventy-eight quarantine centres were set up for Police personnel. To ensure strict adherence with all protocols and uncompromising care for the well-being of the cops at the quarantine centres, close coordination was maintained with police nodal officers of the districts and doctors. A WhatsApp group of the COVID-19 positive cops under isolation in hospitals was created with ADGP Welfare who's coordinating and supervising the entire effort for the Punjab police, AIG Welfare, the Range supervisory officers and the nodal officers as members to keep in touch with them directly.



#### Health insurance

The Hon'ble CM announced a special health insurance cover of INR 50 lakh rupees each for Punjab police personnel in the frontline of the battle against COVID-19.

#### Mobile Police Clinics

To protect police personnel battling the COVID-19 crisis on the frontline, the Punjab Police deployed 33 mobile clinics for their medical examination. The "Mobile Police Clinics" were working in all the 24 police ranges and Police Commissionerates of the state to medically examine the frontline police force, which has been working relentlessly for curfew enforcement and relief operations, across three shifts a day. All personnel are checked repeatedly, every second day, to ensure that there is no health issue among them as a result of possible exposure to the coronavirus. In some districts, help was taken from the civil hospital doctors also to get the police personnel (especially on duty at the *naaka points*) checked for symptoms of flu or other illnesses.9

#### Provision of protective gear

While all police personnel on duty to enforce the lockdown had been provided with masks, gloves and hand sanitisers, those deployed at hotspots, containment zones, clusters, isolation wards, COVID centres (levels 1,2,3) had provided with PPE/biohazard suits. The police force was provided with 10 lakh face masks, 2 lakh gloves, 1,36,000 hand sanitizers, 20,100 soap/hand wash, 10,668 PPE kits and 3248 N-95 masks.<sup>10</sup>

#### Provision of medicines

Police personnel suffering from high blood pressure, diabetes and other medical problems had been provided with medicines at the place of duty. To boost immunity of the workforce, Vitamin-B, Vitamin-C tablets, Vitamin-D, Zinc tablets, Giloy Ghanvati tablets, Homeopathic medicine Arsenic album 30 have been distributed. HCQS tablets were also being made available to the police force on a voluntary basis for anyone interested to take as prophylactic use. About 1.36 lakh multi-vitamin tablets have been distributed among the cops.<sup>10</sup>

#### Provision of food packets

The police personnel were provided with a nutritious, rich and adequate diet, so that the risk to the coronavirus is minimised, and to also help in facing the threat of lowered immunity due to lack of sleep and rest. Around 12 lakh food packets and 1.35 lakh biscuit packets distributed, and all the CPs and SSPs have made adequate arrangements for the provision of cooked food at the point of duty. The Hon'ble CM Captain Amarinder Singh has sanctioned INR 3 crore for providing food packets to the police force at point of duty, which has been disbursed to all the districts in two instalments. <sup>10</sup>

#### Box 5: Doctors of PIPSOWA (Punjab IPS Officers Wives Association)

The doctors of PIPSOWA shared a video on the important measures to be implemented in order to safeguard the police force and their families from the spread of COVID-19.

The video highlighted the symptoms that indicate the presence of the infection in the disease and directs the personnel to reach out to the helpline number 104, in case the individual or any person known is exhibiting the following symptoms. It also provides advisory measures for those ailing with existent illnesses including cancer, heart disease, sugar etc.

The video also features a comprehensive animation on the do's and don'ts that are to be implemented by the personnel and their respective family members. Further, it also provides a detailed sanitization process for the clothing and other accessories worn by the police officials while on duty.

The video also enlists health advisory measures specific to children, pregnant women and the elderly, as they would be more susceptible to the infection. It also highlights the importance of eating healthy food, imbibing a healthy lifestyle and also the need to report to the nearest hospital in case of onset of any of the symptoms of COVID-19.



Doctors of PIPSOWA (Punjab IPS Officers Wives Association) share common but important measures to protect our Police force and their families from the coronavirus pandemic. Please pay heed to what they say and practice caution!

Jai Hind!

@IPS Association

Virtual promotion of the PIPSOWA campaign



#### 2.4 Punjab Police: Going Beyond the call of duty

The Punjab Police engaged in selfless humanitarian service by delivering regular supply of essentials, providing food to the needy, engaging VPOs in the disbursement of pension and ensuring medical assistance to citizens in all districts.

#### Door to Door supply of essential goods

Amid tight restrictions and controls as part of the anti-COVID curfew/lockdown in place, the Punjab Police on 25th March went into a mission mode to launch innovative and indigenous initiatives across the districts to facilitate the door-to-door supply of essential goods. As part of this, strategic partnerships were established with Zomato, Swiggy, Verka, Amul, Mandi Pradhans, Chemist Associations etc. Curfew passes were issued to authorized vendors for the supply of essential goods. For home delivery of Medicines, in particular, necessary tie-ups were made with the respective Chemist Associations, to take orders on the phone and accordingly deliver the same. For dry rations, tie-ups with the Kirana stores were established and information about the availability of the home delivery services disseminated through the WhatsApp groups.

## Distribution of food and essential items to needy

To ensure more efficient and effective supply of food and essential items to all needy persons in a coordinated manner during the lockdown, the Punjab Police have created centralised food pools for optimum allocation and distribution. The pool system encompasses the Village Police Officers (VPOs), NGOs, donors, volunteers besides religious organisations & social welfare groups, in tandem with the civil admin.



#### 114 million

Total food units distributed

#### 97 million

Dry ration units distributed

#### 17 million

Cooked meals distributed

The pool used to get inputs from field officers who regularly map demand and supply areas, with the Resource Pooling and Distribution Mechanism synergising the distribution process.

WhatsApp groups were created by VPOs to liaise with the donors to avoid any duplication in the distribution of foodstuff. On average, each group had 60 /70 person of their areas to streamline the process of delivering food (dry ration and cooked food), medicines, sanitary pads, sanitisers, masks and soaps. Village or ward-wise requirement was assessed a day in advance and consolidated at the ACP/DSP level. Distribution of a load of ration received from all donors was done by NGOs, along with concerned VPOs, who also ensured adherence of all social/physical distancing norms. <sup>11</sup>



## Addressing domestic violence against women during lockdown

The lockdown has brought the world to a standstill. The lives of women who are in abusive relationships have also come to a halt. It was reported that the same violence was being repeated and perpetrated frequently, and on a regular basis during the lockdown.

Amid a massive increase in complaints of domestic violence against women since the curfew/lockdown kicked in, the Punjab Police formulated a detailed strategy to tackle such cases, with daily action taken reports to be submitted by the DSP for Crime Against Women. Figures show that there has been a 21% increase (from 4709 to 5695) in total cases of Crime Against Women (CAW) between February and April 2020, and a similar percentage of increase in cases of domestic violence against women (from 3287 to 3993) in the same period.

DSP CAW was directed to provide a daily report in a defined format to track all complaints and monitor the action taken. The police coordinated, as needed, with One-Stop Centres, which were operated by Counsellors nominated by Department of Social Security, Women and Child Development. As per the response mechanism, the CAW call was received at 112 and forwarded to District Control Room (DCC), with details of the call also given to DSP CAW and District Women Help Desks.

The Women Help Desk/Women Response Team were required to call the concerned and visit the women in distress.

Don't sit in silence!

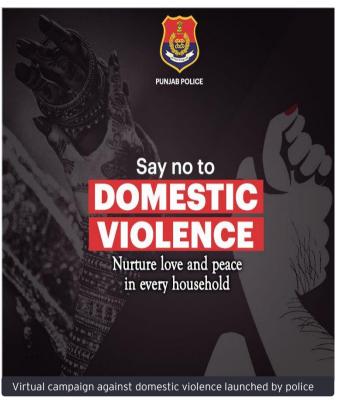
REPORT

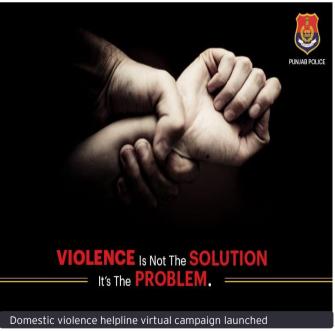
DOMESTIC

VIOLENCE

Domestic violence helpline virtual campaign launched

**21% increase** (from 4,709 to 5,695) in total cases of Crime Against Women between February and April 2020, and a similar percentage of increase in cases of domestic violence against women has been reported.





## Digital campaign for payment of wages to domestic help

The prolonged lockdown was immediately followed by an increase in loss of employment and income for daily wage workers and domestic help. The 'work-from-home' strategy kept the citizens safe but also restricted the movement of domestic help to their regular work, which resulted in close to zero income for their families.

In order to extend their support to the daily wage and domestic labour workers, the State police initiated a digital campaign with the support of the State government to direct and urge the citizens of Punjab to pay their respective workers in full so as to provide them a consistent access to their livelihood.

This campaign was largely successful as several people were motivated to pay their workers and also nudged the citizens to realise the importance of the workers who have enabled a decent livelihood for the employers.







## Unique initiative to set up COVID hospital by Ropar Police

In addition to the routine duties, the Roop Nagar police have set an example by converting one of its wings in police lines into a hospital with requisite quarantine facilities to keep the spread of coronavirus under check. The hospital was well equipped to cater to the COVID-19 positive patients to be kept in complete isolation. The wards of police personal pursuing MBBS and nursing courses have volunteered to work in this hospital.



#### Families of Ropar Police joined COVID-19 fight from home

While police personnel guard the streets to enforce the lockdown in Ropar district, their family members are acting as a pillar of great strength joined the battle against COVID-19, by making masks at home besides ensuring food for the poor and needy in the district. Over 33,000 meals of dry ration besides 800 masks were prepared by the family members of the police officials at their homes and community centre. Dry ration packets were distributed in slum areas and to the migrant labourers in the villages, with masks distributed at every *naaka* point by mobile patrolling. Additionally, each family has also contributed INR 500 each towards this fight against the deadly pandemic.

Out of about 100 families that stay in Police quarters, about 30 families came forward to help. Prepared masks on their sewing machines at homes, they did their bit to ensure safety and health. Spouses, children and even parents enthusiastically participated to ease the burden on police officers by making packs out of ration donated by the NGOs and general public.

#### VPO helps to save a newly born baby

The Head Constable Jitenderpal Singh, Village Police Officer of Munchal in Amritsar, helped to save the life of a newly born baby as she was not well and needed immediate medical attention during the lockdown period. Jitenderpal rushed to the spot. Assisted by one of his village volunteers, he took the baby along with his mother to the Civil Hospital, Amritsar and ensured proper medical care for the baby. <sup>12</sup>





## Two police officers help women deliver a baby

Two police officers, ASI Bikkar Singh and Constable Sukhjinder Pal Singh of Moga on night patrolling duty helped a woman deliver her baby on the roadside in Dharamkot after many hospitals denied admission. Noticing the lady in pain, the cops arranged for wooden benches and called a nurse who was their acquaintance. These two police officers have received "DGP's Honour & Disc for Exemplary Seva to Society" for this act of humanity.<sup>13</sup>



Police officers help deliver a baby in Dharamkot

#### Police officers help in man's burial

The police officers of the Muktsar police set an example for others to follow by lending a helping hand in the burial of an elderly Muslim man Jabar Din, who passed away after illness at his residence on the Ferozepur road amidst curfew restrictions. The police personnel came to know about his death when they were distributing daily langar in the area. 14



#### VPOs disbursed pension at door step

With an aim to avoid a gathering of pension beneficiaries outside banks, Mansa district police roped in village police officers (VPOs) to disburse oldage, handicapped and widow pensions on the doorsteps of beneficiaries.

#### Police deliver menstrual napkins for women

In a unique initiative to help village women, the Nawanshahr Police's Helping Hand organisation in collaboration with Awaaz, an NGO, launched two helpline numbers - 9645507474 and 9645276499 for providing sanitary napkins on their doorstep amid the curfew. This initiative was launched by SSP Nawanshahr Alka Meena, who distributed sanitary napkins in slum areas near Dana Mandi among women from families of migrant laborers. The helpline numbers were operated by women police staff. 15



## Birthday of 1-year old toddlers made special by cops

In an endeavour to save parents from feeling the fear of missing out on celebrating the first birthday of their little ones, the district police sent birthday cakes to parents of toddlers, who turned one amid the curfew in the Mansa district. Village Police Officers brought the matter to the attention of SSP Bhargav. The practice began on  $16^{\rm th}$  April with the first birthday cake delivered at the residence of Mayra Garg. Parents of toddlers appreciated the Mansa police for their initiative and expressed gratitude for helping their families in making the first birthday of their babies a special one.  $^{16}$ 



### Box 6: DGP honours the taskforce members for exemplary performance





25 PUNJAB POLICE PERSONNEL SELECTED FOR THE COVETED 'DGP HONOUR & DISC FOR EXEMPLARY SEWA TO SOCIETY'

Virtual appreciation for the awardees

The Director General of Police selected 25 State police officials across the districts for the coveted 'Director General of Police Honour for Exemplary Sewa to Society' for their exceptional services on the frontlines of the COVID-19 operations and response activities in the State.

The awardees included four SPs, one ASP, one DSP, six inspectors, four sub-inspectors, three ASIs, two Head Constables and four Constables. The award of honours those who have done outstanding work by going beyond the call of duty in various humanitarian activities.

"Punjab Police has used technology as a force multiplier, introduced innovations, distributed food, helped migrants and citizens in distress and the force has emerged stronger and as a more effective instrument of law enforcement in the entire process."

-Dinkar Gupta, IPS Director General of Police, Puniab

Supporting Stranded people





## **Chapter Flow**

Introduction

Assistance for stranded people- calming fears, providing employment, shelter and food

Facilitating movement- registration, digital integration, outward movement via buses and trains, Inward movement, passengers returning from abroad and quarantining

Reflections and lessons learnt

SOPs for outbound travellers and people coming to Punjab via all means

## Highlights





**283 relief camps** set up for stranded people.



**4 lakh** cooked food packets distributed daily to the needy for over a month



Medical screenings, social/physical distancing and all precautions to prevent the spread of COVID-19 were complied with.



**3,000 Punjabis** returned home to Punjab via repatriation flights.



Government, NGOs and religious organizations co-created a support system.



**Trains and buses arranged** to ferry stranded people all over the country, including Ladakh, Jammu and Kashmir, Rajasthan and Nagaland.

# Supporting Stranded People



#### 1. Introduction

The COVID-19 pandemic and subsequent national lockdown imposed on March 24<sup>th</sup> 2020, brought movement to a standstill. In this situation, people stranded in various parts of the country encountered a host of unforeseen challenges. Chief among them were migrant workers, who play an indispensable role in Indian's economy as industrial workers, agricultural labour, construction workers, domestic help, and more. With limited income and safety nets, they are one of the most vulnerable categories of the Indian population, particularly susceptible to natural disasters and crises of public health.

Nearly all sectors of Punjab's economy employ migrant workers. The majority of workers come to the state from Uttar Pradesh, Bihar, Chhattisgarh and Jharkhand. They come to Punjab because of better employment prospects, higher wages, lower economic and social exploitation, and lower caste oppression. While many flock to Punjab for these reasons, there is also significant outward migration from the state. These workers were also eager to return home to Punjab, as were many others who were away from Punjab when the lockdown was announced, including students, pilgrims and tourists.

From the outset, Government of Punjab recognized the beginnings of a humanitarian crisis alongside a public health one, and proactively sought to mitigate the hardships of all stranded persons, especially migrant workers. The following chapter outlines some of the measures taken, challenges faced and lessons learnt.

23 Mar'20	23 Mar'20	23 Mar'20	27 Mar'20	30 Mar'20	20 Apr'20	23 Apr'20
Imposition of curfew in Punjab <sup>1</sup>	Nationwide lockdown announced <sup>2</sup>	CM announces door-to-door distribution of 10L packets of dry rations <sup>3</sup>	Police distributed 1.9L food packets to needy <sup>4</sup>	School buildings open for shelter of migrant labourers <sup>5</sup>	1200 Kashmiri migrants enter J&K after 20 days in Pathankot's guarantine <sup>6</sup>	Migrant registration started on Covidhelp portal <sup>7</sup>

### 5 Lakh+

stranded people moved out of the state<sup>15</sup>

### 1.79 Crore

beneficiaries of cooked food by govt. and NGOs<sup>18</sup>

### 49,470

total number of stranded people returned to the state<sup>16</sup>

### 283

relief camps set up by the government<sup>19</sup>

### 18 Lakh+

people registered their intent to move out of Punjab<sup>17</sup>

### 13 Lakh+

workers have resumed to work in various industries<sup>20</sup>

#### 1.1 Migrant labour in Punjab

Punjab has a large migrant population, but it is difficult to characterize it within any single, homogenous category. Seasonal migrants come to the state to work for a few months in the year, particularly during the peak seasons of wheat harvesting, paddy sowing and paddy harvesting. In districts such as Ludhiana and Jalandhar, many migrants work in industrial units. Others still work as construction labour, earning daily wages.

Some come with their families in tow, but many male workers come to Punjab alone, sending monthly remittances home to support their families. Some are based in Punjab for only a few months of the year (eg: during the harvest season), while others have stayed on for decades.

Irrespective of occupation, in the wake of the national lockdown, most migrant labourers sought to return home. Given the restrictions on movement and absence of public transport, it was a formidable task, but staying back presented its own challenges—both practical (no place to stay, ration or money) and psychological (away from home during an emergency).

Providing relief measures to migrant workers was a high priority for the Government of Punjab. Ensuring their safety also helps reduce the transmission risk of COVID-19 for the population as whole. Moreover, migrant workers are an integral source of labour in the state and play a vital role in reviving the economy.

#### 2. Assistance for stranded people

The government of Punjab worked to reduce the hardships of all people stranded during the lockdown. The efforts comprised of financial assistance, opening up of industrial units to employ migrants and help

sustain their livelihood, providing food, shelter and finally, facilitating movement-both outward and inward. The following sections elaborate further upon these efforts.



5 May'20	6 May'20	14 May'20	22 May'20	24 May'20	25 May'20	5 June'20
First 'Shramik Express' train leaves Punjab for Jharkhand <sup>8</sup>	Advisory issued for operation and sanitisation of buses <sup>9</sup>	100 <sup>th</sup> train carrying migrants leaves from Punjab <sup>10</sup>	First evacuation flight lands at Mohali International Airport <sup>11</sup>	Protocol issued for smooth operation of trains and stopping movement by foot <sup>12</sup>	Chief Minister announces 14 day home quarantine for any person coming in to the state <sup>13</sup>	Movement of 5.20 migrants facilitated, total number of trains reached 398 <sup>14</sup>

#### 2.1 Calming fears and instilling confidence

As soon as the lockdown was announced, migrant workers began to flock to bus and train stations—even walking—in an attempt to reach home. This increased the risk of contagion of COVID-19. In case they were infected, those traversing long distances by foot moved further away from access to medical care. Further, given the restrictions on inter-state movement, their efforts were futile.

Thus, it was crucial to convey to migrants to stay where they were. Labourers could only be convinced if they were assured some source of food and shelter, despite no current stream of income. Communication efforts and public awareness on relief measures made a pivotal contribution here. Migrants were informed of various relief measures—from shelter camps to ration distribution. Simultaneously, they were also explained of the risks of COVID-19.

At this stage, the efforts of SDMs, DSPs, Labour Inspectors etc. were particularly key. Most of the Deputy Commissioners, especially those of Ludhiana, Jalandhar, Amritsar and Mohali made appeals urging migrants to stay for the time being, assuring them that the government would provide aid.

#### Box 1: Financial assistance provided to construction workers



In wake of the COVID-19 pandemic, unemployed construction workers were in a particularly fragile state. Considering the circumstances, the BoCW Welfare Board transferred **INR 6000 each** to the bank accounts of registered construction workers through DBT.<sup>21</sup>

A total of INR 170.74 crore as financial assistance has been disbursed to 2,84,573 workers. This financial aid helped sustain workers during these trying times, as well as helped to infuse trust and confidence in Government institutions.

#### 2.2 Migrants employed during lockdown

#### Industries turning challenge into opportunity

As early as March 29th, the Hon'ble Chief Minister allowed industrial units and brick kilns to commence operations, if they could safely house labourers on their premises itself.<sup>22</sup> This encouraged many migrants to stay within the premises.

Further, as per the MHA guidelines dated March 24<sup>th</sup> 2020, all industries related to essential supplies were exempt from the lockdown, including the manufacturing units of drugs, pharmaceuticals, fertilizers, seeds etc.<sup>23</sup> Hence, many workers employed in these sectors continued to have a source of income during this period. The urgent need to ensure adequate medical resources, such as PPE suits and ventilators, contributed to the gainful employment of many migrants.

With the efforts of the Department of Industries and Commerce, 80% of industries had resumed work by the end of May, employing 13,65,173 workers. About 60% of the workers were migrant labourers.<sup>25</sup>



#### Brick kilns workers

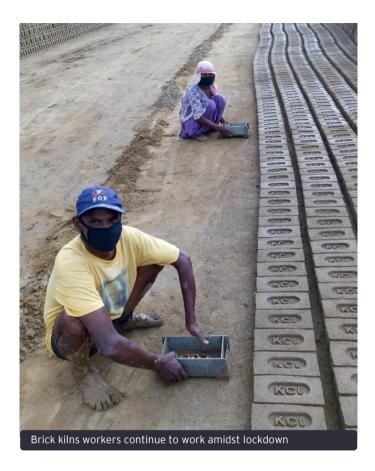
In order to address the problem of migrant labourers and prevent their exodus from the state amid the COVID-19 crisis, the Hon'ble Chief Minister allowed all industrial units and brick kilns in the state to commence operations with such migrants, as long as they were able to accommodate them safely within the premises.

Stringent sanitation measures were essential; soap and water was freely available for use by the workers and regular sanitisation of the common facilities was conducted. The state administration provided dry ration and other food assistance to the migrants staying at the brick kilns.

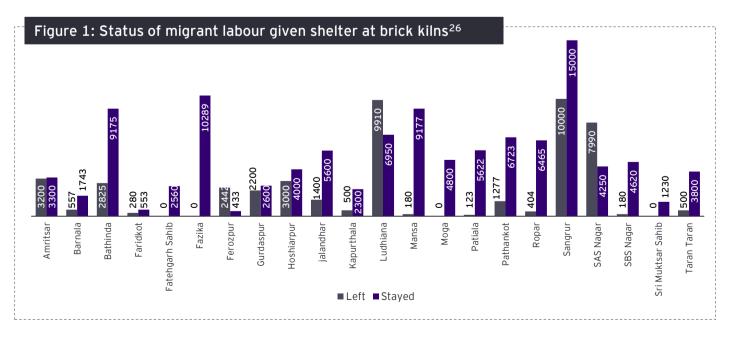
The step taken to operate the brick kilns proved beneficial in restricting unauthorized movement of migrants, and also helped them to sustain their livelihood and continue to earn income.

By the nature of their craft, brick kiln workers had the unique opportunity to continue working during the lockdown. However, by the end of May, many decided they would like to return to home. The vast majority of brick kiln workers hail from Chhattisgarh, and trains were organized from Amritsar to ferry them home. Thus, brick kiln workers flocked to Amritsar in large numbers from districts across the state including Pathankot, Hoshiarpur, Kapurthala, and as far as Bathinda.

In Amritsar, workers were housed in relief camps and received daily meals. Within migrant networks, it became known that Amritsar was the destination from where to board a train to Chhattisgarh. Catering to this demand, frequent Shramik Special trains were organized; over 12,000 Chhattisgarh migrants who worked with brick-kilns were repatriated from Amritsar.



Despite advance notice about the last Shramik Special train, circulated widely through local television channels, Brick Kiln unions etc., the last train to Chhattisgarh left at only half-capacity. Unfortunately, there were still workers who wished to return home. The District Administration helped to make arrangements for them—whether it was to help them board a regular train, go back to the brick kiln, or to return home via private transport.

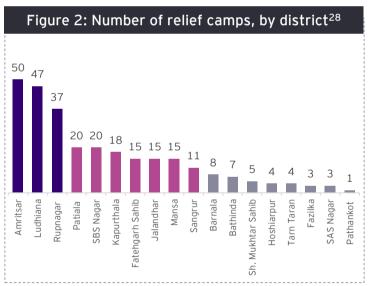


#### 2.3 Providing shelter to stranded people



As per an executive order from the MHA on March 28<sup>th</sup>, states were directed to immediately set up relief camps for migrant workers trying to return to their domicile states during the lockdown period<sup>27</sup>. States were advised to widely circulate information about the location of these relief camps and their facilities, as well as provide information about the relief package under the Pradhan Mantri Garib Kalyan Anna Yojana, and measures being taken by the State Government.

Government of Punjab set up relief camps along the highways for people in transit, including tented accommodation. The relief camps followed strict protocols keeping in view various precautions including social/physical distancing and adequate medical check-up drives to identify and separate cases requiring quarantine or hospitalisation.



#### Box 2: Satsang Ghars providing food and shelter

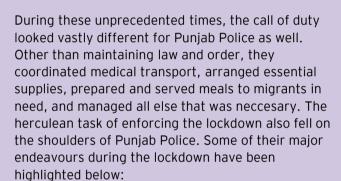
The Satsang Ghars of Dera Beas have been a vital resource during the ongoing pandemic, providing shelter to migrant labourers as well as homeless people.

Around 1.75 lakh food packets are being prepared at these *Satsang Ghars* daily and they are further distributed in different areas as per the demand provided by the District Administration.<sup>29</sup>



#### Box 3: Punjab Police goes above and beyond





- The police force took it upon themselves to curb
  the spread of fake news. On social media and
  online, the police made concerted efforts to
  publicize information about COVID-19, as well as
  restrictions on movement etc. brought about by
  the curfew. This was beyond the typical scope of
  the police, but was crucial given the situation at
  hand.
- Inter-district and inter-state nakas were put in place to keep in check any unauthorized movement. These were manned round the clock.
- Police officers were also appointed as nodal officers, coordinating with officers in other states to bring migrants home, as well as facilitate the safe return of those stranded in Punjab.
- All officers were involved in distributing dry food and rations to migrants in need, as well as providing them with face-masks, sanitizers etc. They also helped to identify shelter homes for those requiring a place to stay, and helped transport them there.



Police supervising movement of stranded people

- The District Police also nominated Police volunteers as force multipliers. These volunteers were proactively involved in helping with welfare distribution.
- A Punjab Police Migrant Coordination Cell was immediately constituted to address all migrantrelated concerns. Some platforms used for communication and complaints were:



IVR helpline number (112/181)



**COVID Control helpline numbers** 



Personal phone numbers of AGDP and other officers

The 112 Helpline was designated as the State-wide Response Helpline to respond to the COVID-19 crisis. All contact numbers were widely circulated among migrants. The District Police control rooms were asked to be especially alert, prompt and responsive to any distress call, especially during a night time shift.

It was a new and challenging experience for Punjab Police. The experience brought to light many valuable learnings, including the importance of empathy and kindness during a crisis. It was also a meaningful lesson in management, underscoring the role of technology and innovation in such unforeseen situations. Most of all, the pandemic emphasized the importance of both mental and physical fitness for all frontline workers, including the Punjab Police.

#### 2.4 Supply and distribution of food for those in need



**720 food camps** were organized by the district administration as well as **17,516** were set up by NGOs.<sup>30</sup>

## 7,34,365 ration packets

distributed under the PMGKAY scheme.<sup>32</sup>

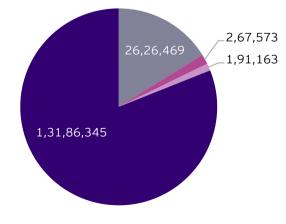
On March 29<sup>th</sup> 2020, the Chief Minister announced door-to-door distribution of 10 lakh dry ration packets to daily wagers and unorganized labour.<sup>31</sup> This subsidy was further supported through various entities: the State Disaster Relief Fund, NGOs and religious organizations helped to supply and distribute food and dry ration kits. On April 16<sup>th</sup>, Pradhan Mantri Garib Kalyan Anna Yojana (PMGKAY) was launched in the state, providing further support to those in need. Under this scheme, the state government provided 7,34,365 ration packets, containing 10 kg atta, 1 kg pulses and 1 kg sugar (two months supply).<sup>32</sup>

At the district level, Rapid Response Teams worked round the clock for home delivery of dry ration kits as well as cooked food packets as per the calls received.

at the district control room help lines. Dry ration kits were distributed to all those in need, irrespective of whether the beneficiary presented a ration card. Around 720 foods camps were organized by the district administration, as well as 17,516 set up by NGO's. Further, from May 27<sup>th</sup>, the Government of Punjab implemented the Atmanirbhar scheme to provide free ration to migrants who are not covered under the National Food Security Act (NFSA).<sup>33</sup> Employers and industry owners were also encouraged to provide for labourers wherever possible. 13% of the total migrant labour in the state were provided food and shelter by their employers and industry owners<sup>34</sup>

The collective efforts of multiple stakeholders made such an operation possible in such a short time, even amidst a public health crisis.

#### Distribution of cooked food packets and dry ration <sup>35</sup>



- Ration packets distributed by government
- Cooked food distributed by government

Food distribution	Daily	Cumulative Number
Ration packets distributed by government	86,558	26,26,469
Ration packets distributed by NGOs	1,247	2,67,573
Cooked food distributed by government	16,551	1,91,163
Cooked food distributed by NGO's	1,50,400	1,31,86,345

- Ration packets distributed by NGOs
- Cooked food distributed by NGO's



#### 3. Facilitating movement

#### 3.1 Registration

Simultaneously, the Government of Punjab spearheaded a large-scale operation to help stranded people return to their home states. In the absence of an existing record of migrant workers in the state, logistics, needs assessment and relief distribution proved to be a challenge. A database needed to be built.

The Deputy Commissioners were made in charge of the process in their respective districts. The integration of technology services also proved integral: stranded persons had the option of availing travel support by the means of COVA App on hand held devices, by using the web portal - <a href="http://covidhelp.punjab.gov.in/">http://covidhelp.punjab.gov.in/</a> or by dialling in the

toll free numbers provided by the district and state headquarters.

This technological innovation, albeit resourceful, was limited in its reach to migrant labourers, many of whom did not have access to a smartphone or did not have the literacy level required.

Hence, at Sewa Kendras, migrants were guided through the process of accessing the portal and submitting their information. This operation was compounded by the efforts of Punjab Police, who deputed SHO's and Sub-division officers to scour their districts for migrant clusters, reaching out to help.

#### 3.2 Outward movement

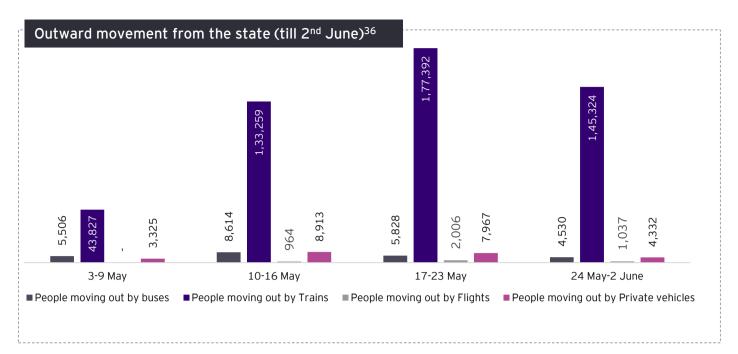
#### Interstate coordination

Once stranded persons and migrants were successfully registered, the challenge of moving them to their domicile states involved the coordinated efforts of the Centre, the Government of Punjab as well as the domicile state government.

The concerns were primarily medical, as domicile states were worried about migrants carrying infection back to the state. To this end, establishing quarantine centres at the receiving end was important.

There were also logistical and financial challenges relating to the cost of transportation. In Punjab, all transport costs of migrant workers seeking to return home was incurred by the state government.

The efforts of designated nodal officers, district magistrates, the Labour commissioner were instrumental in organizing trains from the Ministry of Railways, ensuring medical screening of migrants prior to embarkment, and even providing food and water to migrants for their journeys.



## 398 trains and 830 buses

ran from Punjab ferrying migrant population<sup>37</sup>

#### Over 29 crore

incurred on train operations by the State government<sup>38</sup>

## 12,649 foreigners

returned home to 55 different countries 39

## 5.2 Lakh+ migrants

successfully returned home<sup>40</sup>

#### Movement via buses

Many stranded people reached home via bus. Buses were often easier to arrange than trains, as they didn't require further coordination with the central Ministry of Railways, and could be organized by the state government itself. Yet, from the health standpoint, existing protocols needed to be revamped entirely to ensure maximum protection from COVID-19. A detailed advisory was drafted to reflect the updated SOP. He we measures include the frequent sanitization of bus-stops, offices, buses as well as limiting in-person interaction by providing reliable and complete information prior to the journey.

Buses operated only at 50 percent capacity, keeping in mind social/physical distancing measures. With the extent of airborne transmission of the virus still unknown, air-conditioning was discouraged. Over 830 buses have successfully transported migrants across the country, to places as near as Jammu and as far as Nagaland.



#### Box 4: Stranded Punjabis looking to return abroad

Punjab is the birthplace and original home of a sizeable NRI population. When the lockdown was announced in March, many were stranded in Punjab and eager to return to their homes abroad. With airports closed, their options were limited. By early April, the British and Canadian High Commissions, as well as the American Embassy began to arrange

flights to evacuate their citizens and permanent residents on chartered flights. In addition, outbound flights from India sent to bring Indian citizens back under Government of India's 'Vande Bharat Mission' also accommodated some Punjabis who needed to return home abroad. Curfew passes were issued to facilitate movement from their homes to the airport.



## Box 5: Digital integration through TAMS system in Ludhiana<sup>43</sup>

Innovating administratively and technologically, district administration of Ludhiana developed TAMS system for facilitating movement of stranded people in Punjab. Out of 18 lakh registrations in the state over 9.3 lakh belonged to Ludhiana, accounting more than 50% of the total migrants who were interested to go back to their home states.

#### Train Allocation Management System (TAMS)

TAMS eliminated manual handling of data and 10-15 trains were sent from Ludhiana each day, with full capacity.

- After a requisition was received for a train, the planning was started at T-36 hours (T=Time of train departure) and passengers were identified.
- City was divided into 16 pick-up points through TAMS, number of passengers to be picked up from a particular pick up point was entered.
- TAMS generated a passenger list for the planned train. This list was then sent to the calling staff for calling and for bulk messaging for pick-up time and location
- 24 hours prior to the departure, passenger ID cum bar-coded medical fitness certificates were printed and delivered to pick up points
- Buses ferried passengers from the pick-up point to the drop-off point (chosen strategically e.g. large stadiums)
- Stadiums were divided into 2 parts as per colour coded identification slips-i.e. yellow and white for two successive trains
- Bar-coded slips were scanned at the entrance of the stadium providing real time information
- For both sections of the stadium, separate counters for medical screening and ticketing (12 each) were set up
- While exiting, food and water was provided to each passenger

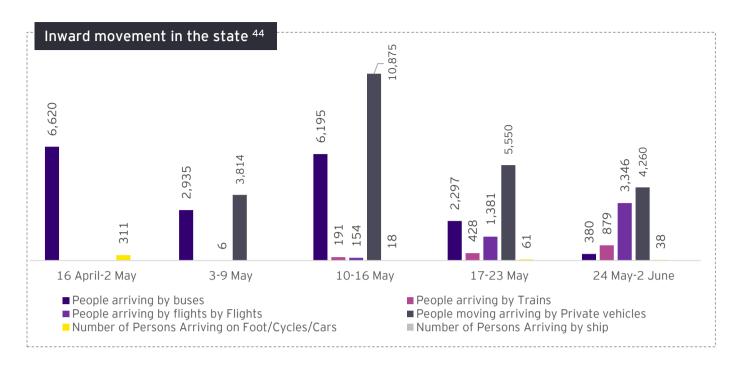
#### Movement via trains

From May 5<sup>th</sup> onwards, Shramik Special trains began to ferry migrant workers home. Teams constituted at the Deputy Commissioner level were in charge of the medical screening of workers before they undertook their journey, as well as making sure social/physical distancing measures were also complied with as passengers embarked and boarded trains. In order to ensure the smooth operation of trains for migrant workers, the following protocol was adopted<sup>42</sup>:

- All Deputy Commissioners and District Police Chiefs ensured that no migrant worker was forced to walk home enroute to another state.
- Buses were arranged for transportation of migrant workers found on roads or alongside rail tracks. Police patrol vehicles ensured that migrant workers were transported by bus to the nearest district headquarters, from where they may board a train or bus for their state.
- Workers being locally transported were supplied with masks by the police party, and social/physical distancing measures were complied with.
- Deputy Commissioners ensured that arrangements for food and water were made for migrant workers in their districts, while following proper health safeguards and social/physical distancing measures.
- Information on trains scheduled to depart to different destinations in other states was widely shared in advance.
- Daily report was to be sent by all districts of such persons transported to their shelter homes to the State Control Room and DGP.

Trains were initially operating at maximum permissible capacity, but as lockdown restrictions began to ease, migrants were increasingly encouraged to stay on in Punjab and resume work.

#### 3.2 Inward Movement



# 39 Shramik Special trains have come to Punjab ferrying migrant population

**842 buses** have come to Punjab carrying stranded people

#### Over 49,000

stranded people successfully returned to Punjab, by all modes of transport

From the outset, the Chief Minister emphasized that every Punjabi was welcome home. As early as March 24, over a large number of NRI's had recently returned to Punjab, potentially carrying the virus from across the world. Similarly, even during the lockdown, many stranded people across the country sought to return home, and they were welcomed despite the logistical challenges and risk of increased infection. Every effort was made to facilitate their return, but quarantine was mandatory. (SOP for all movement into the state is <a href="https://example.com/attention/emphasized-their-return">attention/emphasized-their-return</a>, but quarantine was mandatory. (SOP for all movement into the state is <a href="https://email.com/attention/emphasized-their-return">attention/emphasized-their-return</a>, but quarantine was mandatory. (SOP for all movement into the state is <a href="https://email.com/attention/emphasized-their-return">attention/emphasized-their-return</a>, but quarantine was mandatory. (SOP for all movement into the state is <a href="https://emphasized-their-return">attention/emphasized-their-return</a>, but quarantine was mandatory. (SOP for all movement into the state is <a href="https://emphasized-their-return">attention/emphasized-their-return</a>, but quarantine was mandatory.

While various migrants returned to Punjab from states across the country, many were also stranded beyond national borders. The Attari-Wagah border remains the only operational land border between India and Pakistan. Thus, all those who were stuck in Pakistan during the lockdown-some of whom had gone to visit family, or for religious reasons-had to cross this border to return to India, irrespective of their home state. All those coming in to the country were required to complete their time in institutional quarantine, as per the protocol. All the returnees from Attari-Wagah border were housed in quarantine centers in Amritsar before they could continue their journey on to their respective home states, and government of Punjab incurred all related expenditures.

## Box 6: SOP for inward movement by road <sup>45</sup>



#### Registration and availing e-pass

- All inward passengers need to register themselves at covidhelp.punjab.gov.in
- Once registered, passengers need to get a medical screening certificate as per specified format from a government authorized doctor
- Upon receiving the certificate the passengers need to apply for an e-pass and download the same



#### Starting the journey

- The e-pass availed should be pasted on the front of the vehicle that they shall be using for the movement
- Upon entering the state, the passenger needs to stop only at the destination specified on the e-pass and the checkpoints



#### Reaching Punjab

- The passenger shall report directly to the district quarantine facility as per information available on the website and e-pass
- Once inbound passengers reach the quarantine facility, DC's will proceed further as per the protocol issued by DoHFW

#### Citizens returning from abroad

By May, the State began to prepare for a large influx of NRI's who were expected to return to Punjab as part of Government of India's *Vande Bharat* Mission. To help mitigate the struggles of Punjabis stranded abroad, the state government appointed special coordinators in various countries, who volunteered to help organize arrangements.<sup>47</sup> Many labourers travelling from the Gulf struggled to pay for their tickets, and it is the diaspora who pitched in here and funded their return. Similarly, others opened their homes to fellow Punjabis stranded abroad, as they awaited news of repatriation flights.

Citizens abroad had two ways of indicating their intent to return: on the government portal, or via connecting with Indian missions and embassies abroad directly. Almost 30,000 people belonging to Punjab were registered.<sup>48</sup> Students, stranded tourists, those whose visas had expired, unemployed people were given first priority. The list of passengers on each flight was finalized by the Ministry of External Affairs.

While many Punjabis returned on flights that landed in Delhi, they faced significant trouble making their way further to Punjab. To this end, a facilitation centre was set up by the state government at the Indira Gandhi International Airport, to ensure smooth last mile connectivity as well as address any other concerns.<sup>49</sup>

#### Quarantining Passengers<sup>50</sup>

Details of incoming passengers were sent to Deputy Commissioners, who were asked to make the necessary arrangements for quarantine facilities. As per the MHA advisory, all passengers were subject to 7 days institutional quarantine upon arrival, followed by another 7 days at home.

Given the slow onset of COVID-19 symptoms in many cases. the Government of Punjab added an extra layer of protection to this protocol. All returning passengers were tested using RT-PCR kits on day 5 of their institutional quarantine. By day 7, their results are processed to indicate whether it is safe for them to continue their quarantine at home. Institutional quarantine arrangements included government facilities, and for those able to pay, hotels that had opened up their premises. All passengers were also asked to sign a self-declaration form, as well as download the COVA app for surveillance purposes.

Some deportees from other states also landed at Amritsar Airport. For them, the protocol was as follows:

 Manifest of such passengers was sent to the respective states and tie-up with the concerned state nodal officers was done.



- Upon preliminary health screening, symptomatic patients were referred to the Government Hospital for testing and follow up. This information was shared with the concerned State/District as well.
- In case of asymptomatic passenger:
  - Where the transport arrangements were made by the concerned State/District: the passengers were sent to their destination along with an appointed Nodal officer
  - Where the concerned State/District could not arrange the transport: a pool of buses/vehicles was kept on stand-by for this eventuality.
- Tie-up was done with the concerned States/Districts to transport their passengers till their border.
- Refreshments were provided for the journey.
- Request from few states was received to accommodate their passengers in Amritsar itself, till the completion of their quarantine period. These passengers were accommodated in Government Institutional Quarantine facilities at Amritsar, as per the health protocol. The services of various NGOs were roped in to facilitate the arrangements of their food, clothes and other necessities.
- After completion of their stipulated quarantine period, their movement to the destination was either arranged by their State Nodal officer or it was done on their own with the help of District Administration Amritsar.

#### Box 7: Lessons from Nanded



Hazur Sahib Gurdwara, Maharashtra

Nanded, Maharashtra is home to several historical gurudwaras, including the Hazur Sahib gurudwara, which is among the Panj Takht--the five temporal seats of Sikhism. It assumes a central place in Sikh history as the final resting place of Guru Gobind Singh, where he anointed the holy book, the Guru Granth Sahib as the eternal Guru of Sikhism. Thus, many pilgrims from Punjab visit Nanded to pay obeisance during the month of March, a time in between harvests for farming families.

When the lockdown was announced, over 4,000 devotees from Punjab were stranded in Nanded. As early as March 25<sup>th</sup> 2020, the Chief Minister of Punjab wrote to the Union Home Minister and the Chief Minister of Maharashtra to facilitate their return, but it was difficult to negotiate, given the many logistical barriers: the ongoing lockdown, the distance between the two states, the large number of pilgrims stranded.<sup>51</sup>

By April, pilgrims were especially anxious to return home once the wheat-harvesting season began, as many needed to tend to their crop. On April 23<sup>rd</sup>, Government of India granted permission for their return.<sup>52</sup> The challenge was then to ensure their return in a way that was feasible, efficient, and reduced risk of contracting the virus.

This was no easy task, and required the efforts of multiple people, including the Nanded District Administration team, the Gurudwara authorities, the Additional Chief Secretary, Home, Principal Secretary, Transport and many others.

Initially, some returnees arranged for private vehicles and reached their villages without informing the district administration. This posed a difficulty, but eventually all returnees were tracked with the help of strong network of booth level officers and village sarpanches. These passengers were tested, and their primary and secondary contacts also reached out to.

Once formal approval was received from all involved states, the first three organized cohorts of passengers returned to Punjab via transport organized from within Maharashtra itself, although the costs were incurred by the Government of Punjab. For the remaining pilgrims, buses were sent from Punjab.

Passengers were temperature screened prior to embarking on the bus by the Maharashtra authorities. The journey was over 60+ hours, one way. Charting routes, designating halting points, organizing passengers in buses according to their hometown were just some of the tasks to manage. In Punjab, the District Administration needed to be informed of the numbers returning to their respective districts, to arrange quarantine facilities.

When passengers returned to Punjab, it was found that over 900 out of the 4000+ pilgrims were positive. While it is difficult to trace the exact source of their exposure, quarantining them was key to curtailing the spread of the virus.

Every pilgrim returning from Nanded was tested for COVID-19. For those whose tests came negative, they were still required to remain in the government quarantine for a week, after which they were re-tested before being sent home for two weeks home quarantine. Out of the 900 tests that came positive, only 17 people exhibited symptoms.<sup>53</sup>

Thus, Nanded was a major learning experience as an exercise in logistics and management, but also for what it revealed about the nature of COVID-19 itself. The bulk of pilgrims exhibited no symptoms whatsoever, yet were tested positive and could thus potentially transmit the virus further. This made it clear that temperature screenings was not a sufficient way to determine if somebody was carrying the virus, and COVID-19 tests must be conducted.

Further, the Nanded experience happened to coincide with the return of 150 students from Kota, as well as 2700 Punjabis stranded in Jaisalmer.<sup>54</sup> The spike of cases was thus particularly difficult to manage. If possible, rescue efforts should be staggered slightly, so as not to overwhelm district administration and healthcare resources all at once.

#### 4. Reflections



#### Strong communications, stronger logistics

As guidelines and advisories were adapted and changed, real-time responses became increasingly difficult to manage. A plethora of guidelines, advisories, SOPs etc, were issued by various authorities, making it complicated for other departments as well as ordinary citizens to discern exact protocols. A comprehensive and coordinated response relies on clear and concise information, which could perhaps have been streamlined further.

Between states and at the central government level, the crisis demanded frequent and meticulous coordination for smooth operations. Designated nodal officers and many others rose to the challenge, committing themselves round the clock. Going forward, the hope is that their hard work has streamlined the process for later stage interventions, including the return of migrants to Punjab.



#### Fighting together: boosting community wide efforts

It took the collective efforts of people from all walks of life to provide timely relief. Within the community, all members of society contributed their time, resources and labour. Engaging the wider community in pandemic relief efforts helps the public feel involved and invested in the cause, which can lead to increased compliance. It is also a means of gaining fresh, valuable insight on the lived experiences of ordinary people in the face of government restrictions.

Moreover, expanding the corpus of responders helps to reduce the burden on frontline staff.

The supply and distribution of food was one particular area wherein the role of NGOs and the community was indispensable. In future crises, it would be a good idea to use digital tools to build a centralized system that maps supply areas to the individuals in need. The same system could also be used to track false complaints/orders, and block those people in the future.



#### Harnessing technology towards greater inclusion

Technological innovations, bolstered by on-ground support, helped build a library of records previously lacking. This new data-set grants new opportunity to learn about the nature and extent of migration in Punjab, at a scale previously unseen. It should be employed responsibly in the next stages of COVID-19 response, as well as in respect to future challenges. The creation of a pan India data set

would be helpful as migrant labourers move interstate, which thus far has created logistical hurdles relating to movement passes and quarantining. Moreover, technological capabilities can be further utilized towards a range of relief measures: quarantine tracking, mobile money apps, online counselling are just a few ways in which technology can be channelled towards greater benefit for stranded and vulnerable populations.



#### SOP-1: For Outbound travellers/Stranded people from Punjab



Each applicant (person willing to move out) has to fill a performa, at <u>covidhelp.punjab.gov.in</u> for his/her family/group. Once done, a system generated unique ID will be issued to that person/family/group



Access to the backend of this data to be provided by the State COVID Control room to all DCs



DCs to simultaneously prepare for setting up for adequate number of health check camps to cater to people desirous of moving out



Bulk SMSs should be sent informing each person date and location of the camp where s/he is to be screened. Members of a family/group to be screened at one camp.



A DC is entitled to make changes to the medical screening protocol in view of the prevailing ground position



Once a person is screened and found asymptomatic, s/he will be issued a screening certificate by the health team



At the time of screening certificate, options to be taken from each person/group/family whether they have their own vehicle/s or not



In case they don't have their own vehicle, applicants shall be provided the option to travel by road/train



Provision of option of travel by road/train will be the prerogative of District Administration



Option of travel via train to be allowed only if there is a train movement to a district near applicant's destination



#### SOP-1 Contd.



DC to request Principal Secretary, Transport to arrange for point to point trains upon confirmation from him, after finalising the list of IDs and people to be sent via trains



Parallelly through RTAs, DC to collect data of private transporters willing to transfer outbound travellers



DCs to get in touch with state nodal officers and share with them the approximate number of persons who want to move



State Nodal officers to tie-up with their counterparts in other states and take their in-principal approval regarding movement and inform DCs about the same



Bulk SMS to be sent by DCs to reach each ID in the following manner-



Those who have desired for movement by own vehicle, SMS to be sent to them asking to apply for curfew movement pass on COVA app/link



Those who shall be moving by train, will be informed about the time/departure route/coach number of the train



Those who are not covered in the above categories, list of private vehicle operators with numbers along with upper cap of price per kilometre. The private bus operator to apply for curfew pass through COVA app/link



DCs to share stagewise passenger details (vehicle/trains) with state nodal officers who shall in-turn tie up with their counterparts in other states to inform about the proposed movement



Once DC is informed about the permission by nodal officers, DC to upload the IDs of applicants who are moving out on the Covidhelp dashboard



Movement to commence by train/road. Above iterations to be repeated till all movement has taken place



#### SOP-2: For people coming to Punjab (by all modes)

#### **Guidelines for International Travellers**



All people arriving Punjab through airport/seaport/land port will handover the self-declaration form having personal and health details to state officers. They will be screened at the ports as per the health protocols



The people found symptomatic during screening shall be taken to the health facility for testing. If found positive they would be treated as per the health protocol (mentioned below)



Asymptomatic passengers and those found negative will be taken into institutional quarantine on payment basis and will be tested on 5<sup>th</sup> day. If tested negative, they will be allowed to go home after completion of 7 days and advised another home quarantine for another 7 days



If tested positive, they shall be shifted to government isolation facility and treated as per health protocols



All passengers will download COVA app which should remain active



In case of exceptional circumstances such as pregnancy etc, DC may allow for 14 days of home quarantine instead of institutional quarantines and this must be intimated to Health Department

#### Guidelines for Domestic travel (air/train/inter-state travel by road)



All persons arriving through air, rail, road will be screened at the entry points for symptoms of COVID-19



The people found symptomatic during screening shall be taken to the health facility for testing. If tested positive would be treated as per health protocol



#### SOP-2 Contd.

#### Guidelines for Domestic travel (air/train/inter-state travel by road)



If found asymptomatic or tested negative, they will be allowed to go home after submitting an undertaking for home quarantine for 14 days and self monitoring and reporting to nearest health facilities in case of any symptoms



All passengers will download COVA app which should remain active

#### Guidelines for frequent interstate travellers



Frequent interstate travellers who need to move out of Punjab such as MM/MLA, salespersons, transporters, doctors, journalists, executives, engineers, traders, consultants etc. need not to be home quarantined



Deputy Commissioners and Sub-divisional magistrate will issue passes to such persons who shall submit an undertaking for self monitoring of their health status and will inform the administration in case they experience any symptom of COVID-19



All passengers will download COVA app which should remain active

#### Health protocols



RT-PCR samples as per ICMR criteria of all suspected cases will be taken for COVID testing



Those who test positive and asymptomatic (<60 years and no comorbidity) will be kept in COVID care centres



Those who test positive and need medical supervision (either due to the severity of symptoms, co-morbidity or more than 60 years of age) will be shifted to level II or level III depending on medical conditions



All persons must be discharged as per revised discharge policy of the Government of India



#### SOP-3 Movement of persons by train



Movement of trains shall be permitted by the Ministry of Railways in a graded manner, in consultation with the Ministry of Health & Family Welfare and Ministry of Home Affairs.



Train schedule, protocols for booking, entry, movement of passengers and coach service specifications to be widely publicized.



Only those passengers with confirmed e-tickets to be allowed to enter the station.



All the passengers to be compulsorily screened and only asymptomatic passengers to be allowed to enter/board the train.



All passengers to be provided with hand sanitizer at entry and exit points at the station and in coaches.



All passengers to wear face covers/ masks at the entry and during travel.



During boarding and travel, all passengers to wear masks and observe social distancing.



Health advisories/ guidelines to be circulated through IEC campaigns for staff and passengers.



On arrival at their destination, the travelling passengers to adhere the health protocols as prescribed by the destination State/UT.



#### SOP-4 Arrangement of interstate movement of migrants



Number of buses/trains along with their seating capacity to be arranged at the originating station by the State Departments'.



Details of days of departure, number of migrants travelling, details of destination district and State to be prepared by the District Administration.



The requirement/condition of screening and of quarantine facilities to be taken care by the District Administration and State Departments'.



Availability of masks and sanitizers to be ensured at Railway Stations, Bus Stans and screening centres.



Strict adherence to social distancing norms to be complied with at all times.



Modalities of transportation from place of stay to the originating Railway Station/ Bus Stop to be arranged in advance.



Coordination with the receiving districts of other States to be established.



A database of migrants willing to move out to be created and updated regularly mentioning the basic details, destination district, health status etc.



#### SOP-5 Management of interstate movement of migrants



Persons with their own vehicles to be provided with passes, after the screening by done by doctors in camps and other areas inhabited by interstate migrants.



Use of buses permitted for persons whose home districts were within 500 kms and use of trains beyond 500 kms.



Mandatory registration on <a href="http://covidhelp.punjab.gov.in">http://covidhelp.punjab.gov.in</a> to be ensured for those willing to travel to their Home States. Reminders through calls and bulk SMSs to be sent one day prior to the journey.



Screening centres to be set up by the District Administration to verify the identity and native place of the migrant.



Social distancing norms to be complied with distancing markers. Tenting to be used to provide shade to hundreds of people in the summer heat along with water tankers for providing drinking water.



Executive Magistrate and Police to be deployed to manage the crowd at Collection Centre.



An upper limit for every Railway Station to be decided on the basis of persons who have registered on portal from nearby areas on the portal.



Tickets to be handed over to passengers on arrival in the batch of 30.



Coach-wise list of passengers to be shared simultaneously with Railways and the District Magistrate of the destination District for contact tracing.



Each passenger to be provided with a water bottle, a pack of biscuit on arrival at the Railway Station. Before the departure, a freshly prepared meal also needs to be provided to every passenger.



#### SOP-6 Inward movement of persons in the state



 $\bigcirc \bigcup$  At every inter-state border, teams to be stationed 24x7 to record and lacksquare verify the following details of persons entering the State:

E-Pass: It is to be ensured that every person in the vehicle has COVA App installed. In case the persons have the App and self-generated epass, they may be allowed to pass.

Self-declaration form: In case persons do not possess phones with internet/App facility, their details should be noted and selfdeclaration form should be filled.



The bus wise lists of passengers should be made and send to the concerned district nodal officers along with details of bus driver, destination districts etc.



The border teams are to ensure that on a daily basis, 2 lists are sent to all district:

- Bus wise list of passengers headed for a district
- Self-declaration forms for a particular district



At Railway Stations & Airports

- Teams to be stationed as per the schedule of incoming trains and flights.
- Lists of passengers to be made and sent to the respective district's Nodal Officer for which they are headed.
- Cova App is to be installed for all persons. Otherwise, Selfdeclaration forms are to be filled.



Quarantine Breach Data: SDMs to monitor this data available on the COVA Puniab portal as well as lists shared by Nodal officers. Action to be marked on the portal itself by the Health teams. Daily alerts to be sent to DCs to take action.



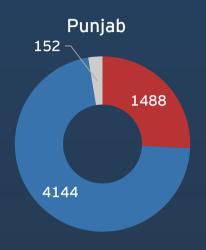
Flying teams: Flying teams of RRT personnel and Police personnel to be made to update the list of persons who have been guarantined in the district to be shared Thana wise with these teams every Tuesday and Friday by the district. Surprise checks to be conducted.

Building resilient health ecosystems



## Punjab by the numbers

Data as on 2<sup>nd</sup> July, 2020



Total Cases: 5.784

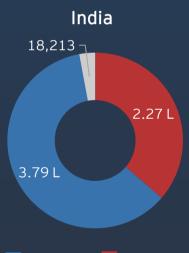
**Active Cases:** 

1,488

Recovered: 4,144

Deaths:

152



Total Cases:

**Active Cases:** 

6,25,543 2,27,439

Recovered: 3,79,891 18,213

Deaths:







#### Amritsar



**Total Cases:** 928

**Active Cases:** 144

Recovered: 740

Deaths: 44





**Total Cases:** 

917

**Active Cases:** 325

Recovered:

Deaths: 22

570

#### Jalandhar



Total Cases:

755

**Active Cases:** 

223

Recovered:

511

Deaths: 21

### Sangrur



Total Cases:

493

**Active Cases:** 

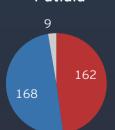
180

Recovered:

299

Deaths: 14

#### Patiala



**Total Cases:** 

339

**Active Cases:** 

162

Recovered: 168

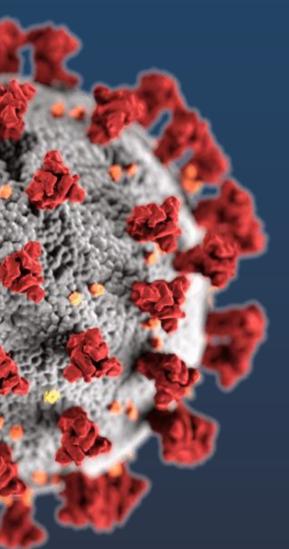
Deaths:

101

Punjab and India

Recovery rate: Case Fatality Rate: Tests per million population: Positivity rate:

69% | 57% 02% | 03% 8,385 | 5,459 1.46% | 6.27%



3,17,802

Total Samples tested

965

Rapid Response teams deployed

18,929

Home quarantined

3000

Level 1 Beds (operational)

30,549

Medical officers, doctors, nurses and FLWs attended Physical Training 29,307

Contacts traced

38,00,000

Households surveyed

2,70,000

PPE Kits procured

4842

Level 2 Beds (operational)

8,173

Medical officers, doctors, nurses and FLWs attended Online training 225

Flu corners set up

124

**Testing Kiosks** 

4,40,000

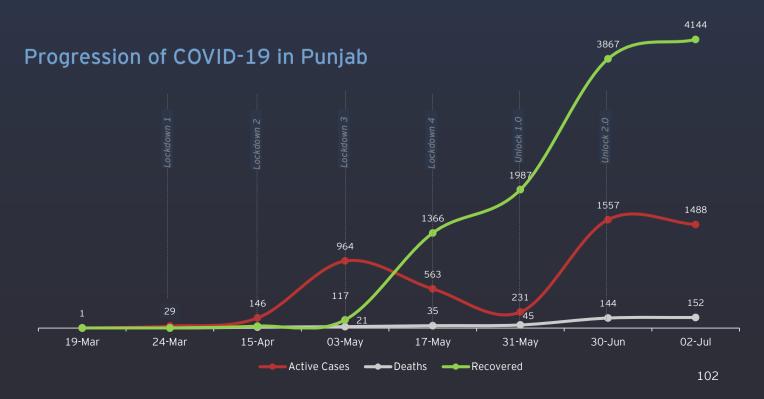
N-95 masks procured

1719

Level 3 Beds (available)

2,80,173

Medical officers, doctors, nurses and FLWs completed I-GOT courses



## Building resilient health ecosystems



#### 1. Introduction

COVID-19 has proved a worthy opponent to even some of the best healthcare systems worldwide. While lockdowns have helped to flatten the curve to some extent, they are difficult to sustain for extended periods of time without causing long-lasting damage to the economy. In the absence of a vaccine, the immediate COVID-19 response, as per WHO guidelines, is a multi-pronged one.¹ It comprises of identifying and testing all suspected cases so that confirmed cases are promptly and isolated and receive appropriate care, and tracing close contacts of all confirmed cases so that they can be quarantined and monitored for the 14-day incubation period of the virus.

If these steps are employed in a widespread manner early on, there is hope. Simultaneously, mass awareness on prevention, ensuring adequate medical capacity, and investing in research towards treatment and a vaccine must ensue. Regular healthcare services should also continue with as little disruption as possible. These mainstays will contribute to a public health response that is both robust and far-sighted.

Certain factors made tackling the spread of coronavirus in Punjab uniquely challenging: a sizeable expatriate population that brought the virus back to Punjab, high population density in large cities, many existing co-morbidities within the community, to name a few. The uncertainty about the nature of the virus itself brought an added layer of difficulty to implementing healthcare policy, as guidelines needed to be continuously adapted as and when new information surfaced.

Given these challenges and others, a pre-emptive and diligent attack on COVID-19 was especially key, particularly as it shaped the future course of the pandemic within the state. The following chapter elaborates further on the public health strategy of Punjab, during the first phase of the COVID-19 pandemic.

9 Mar'20	19 Mar20	8 Apr'20	22 Apr' 20	14 May' 20	17 May' 20	20 May '20
First COVID-19 case reported in Punjab	First Covid-19 death in SBS Nagar	Testing capacity increased tenfold in the state	SBS Nagar becomes first COVID free district	Number of PPE manufactures crossed 50 in Punjab	Govt. provides free medicines for patients with comorbidities	CDAC Mohali's flagship telemedicine solution implemented

Punjab can boast of many laudable initiatives during the first phase of the COVID-19 pandemic. The state was the first in the country to impose a curfew on 23<sup>rd</sup> March 2020, anticipating the high risk of transmission. It was also one of the first states to introduce plasma therapy for ailing COVID-19 patients, saving many lives. The government also began to distribute free medicines to patients being treated for hypertension and diabetes, to promote

the overall health of Punjabis. Further, the Hon'ble Chief Minister has ensured private hospitals help to combat COVID-19, while ensuring affordable costs under CGHS (NCR) rates. Such cross-cutting efforts help towards ensuring optimal care for patients, and are only made possible by the collective efforts of various stakeholders coming together. The major departments, organizations and committees involved in healthcare efforts during the pandemic have been highlighted below.

Department of Health and Family Welfare

State Public Health Advisory Group

Department of Medical Education and Research

Health Sector Response and Procurement Committee

National Health Mission Upgradation of Health Structure Infrastructure Committee

Punjab Health
Systems
Corporation

COVID Care
Centre Committee

1 Jun'20	5 Jun' 20	12 Jun' 20	30 Jun' 20	2 Jul' 20	21 Jul'20	30 Jul'20
'Mission Fateh' campaign launched	Govt to conduct free testing for COVID-19 samples sent by empanelled private hospitals	'Ghar Ghar Nigrani' app launched for house-to- house surveillance		CM releases COVID Clinical Management Too for healthcare workers	First plasma bank set up at Rajindra Hospital, Patiala	22 Govt. Officers deputed as COVID Patient Tracking Officers

#### 2. Prevention

The SARS-CoV-2 virus is transmitted through direct contact with respiratory droplets of an infected person (generated through coughing and sneezing). Individuals may also be infected from touching surfaces

contaminated with the virus and touching their face (e.g., eyes, nose, mouth). Since currently there is no vaccine available, the best way to prevent this illness is to avoid being exposed to it. As with the other respiratory infections like the flu or the common cold, public health measures are critical to slow the spread of this illness.

Government of Punjab imposed curfew with effect from 23<sup>rd</sup> March 2020, prohibiting any mass gatherings to prevent the spread of COVID 19, and active surveillance to search any suspected cases was started. Screening of all passengers at the two international airports (Amritsar and Mohali) began and lakhs of passengers were screened. Department of Health and Family Welfare (DoHFW) began to educate the masses through IEC activities and various protocols and advisories were issued to control the spread of the virus. Major preventive initiatives of the Punjab Government, listed in chronological order, have been detailed in this section.

## Screening of incoming passengers at the airport

Even before the imposition of the curfew, as early as March, Amritsar Airport and Mohali International Airport were sounded an alert, with advisories prominently displayed for information of passengers. IEC material was also on display at these airports, where thermal scanners had been installed and screening of the passengers was initiated. Medical teams along with paramedics from Health Department were deputed and announcements were being made for the information of self-declaration of passengers.

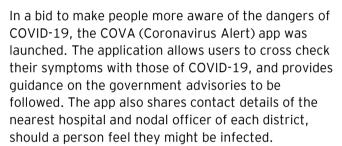
Similarly, screening of passengers was initiated at Attari/Wagah border check-post in Amritsar and Dera Baba Nanak check post at Gurdaspur. Noncontact thermometers were made available for screening of passengers at these check posts, besides displaying advisories and IEC material. Once flights resumed during the second week of May, all incoming passengers were mandated institutional quarantine for 14 days.

## Reporting to Government hospitals after travel history at flu corners



After notifying COVID-19 as an epidemic disease on 6<sup>th</sup> March, it was announced that all hospitals shall have flu corners for screening of suspected cases of the disease. These flu corners were mandated to record the history of travel of the person if he/she has travelled to any country or area where COVID-19 has been reported. Any person, with a history of travel in last 14 days to a country or area from where COVID-19 has been reported, was asked to report to the nearest government hospital for self declaration and screening.

### COVA app launched to sensitize people about precautions from COVID-19



In April, a unique feature was launched within the app, which allowed people to check distance from the nearest COVID positive patient. The feature helped the authorities to enforce quarantine restrictions and enabled people to keep themselves and their families safe through a self-control mechanism. By geotagging positive patients, the application helps the administration trace locations that the positive patient has visited during the last few days.

By the end of May, over 23 lakh people had downloaded the COVA app on their smartphones

## Avoidance of mass gathering and other crowded places

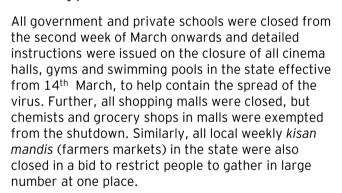


Though Punjab had only one confirmed case on 16<sup>th</sup> March, no effort was being spared by the state government to ensure stringent measures against the spread of the disease. The cabinet appealed to people to avoid going to crowded places and mass gatherings, to maintain hand and respiratory hygiene and ensure cleanliness of their surroundings. It was further appealed to either defer marriage functions or ensure that no more than 50 people are present. All large public gatherings including sports,

conferences, cultural events, fairs and exhibitions, wedding functions, were prohibited.



#### Shutting down of schools, colleges, government offices, cinema halls, gyms, swimming pools etc.



#### Ban on plying of all public transport and examinations postponed

To address the urgent need of stopping people to come out of their houses unless its for an emergency, government stopped the operation of all the public transport (government and private buses) from 20th March 2020. Apart from this, private and state run buses were ordered to carry hand sanitisers for the use of passengers to ensure hygiene in the vehicle. All the Board examinations of 10th and 12th standard were also postponed and all the public dealings in the government offices was called off with immediate effect.

#### Masks and Sanitisers made essential commodities

In view of spread of COVID-19, the Punjab Government added 2ply and 3ply surgical masks, N95 masks and hand sanitisers in the essential commodities under which fixed price would be charged by shopkeepers from the consumer. This was done to avoid hoarding and price surging of essential safety products such as face masks, sanitisers etc.

#### Door to Door COVID campaign launched

The Punjab Police launched a massive door to door outreach campaign through the recently deployed Village Police Officers (VPOs). The VPOs were trained and tasked to educate people in their respective villages about the disease and the necessary precautions to prevent its spread, and to bust any myths and misconceptions about it. They were briefed by the District Police Chiefs to coordinate and liaise with the local civil administration and the DoHFW to ensure effective implementation of the government's instructions and advisories on COVID-19 by all the people at the local level.

#### State-wide lockdown imposed in the state to combat pandemic

A state-wide lockdown was imposed on 22<sup>nd</sup> March 2020, as an emergency measure to tackle the situation. Section 144 was imposed, preventing more than 10 people from getting together at a public space at any given time.





It was further ensured that essential goods and services like electricity, water and municipal services, banks other E-commerce such as home delivery, groceries were always open. Adequate supplies of essential goods were made available at reasonable prices at all times. During the lockdown, all private establishments had to remain closed (shops, offices, factories etc), and no public transport, including taxis, auto rikshaw's etc were permitted.

### IEC for de-stigmatization related to cremation

Health Minister, Mr. Balbir Singh Sidhu made an appeal to the public to not panic, as cremation of COVID-19 positive patient's body does not pose any additional threat. Sensitizing the public, the crematorium and burial ground staff, he reiterated that the cremation of loved ones can be safely conducted as long as proper protocols are adhered to. So much so that the even the ash does not pose any risk and can even be collected to perform the last rites. However, he advised that large gathering at the crematorium/ burial ground should be avoided as a social distancing measure.

## Disinfecting the villages, jails and public places

At the local level, sanitization campaigns were carried out in the bigger cities like Jalandhar and Ludhiana. On April 6, more than 1 lakh litres of Sodium hypochlorite was sprayed in all 898 villages of Jalandhar district. The drive was carried out by the Rural development and Panchayat Department and 1760 teams were constituted to complete this task effectively. Around 2.16 lakh households of the villages were successfully sanitized.

In Ludhiana, sanitisation drive was carried out with the help of Hi-tech Japanese machines, handed over by the United Press Club. These machines could enter narrow streets and could even sanitise the doors and windows. By widening this machine till 53 feet, a street can be sanitised easily. All parts of the city including houses, streets, sabzi mandis and local markets etc. were disinfected

Further, the Local Government department in coordination with the Jail Department executed sanitization in all jails of the state. Jails have shown to be especially vulnerable to the spread of COVID-19, as they are typically dense packed. Other than this, procurement mandis were also sanitised by the Local Government Department.







### PPE kits and masks provided to all workers at the frontline



After ensuring that there will be no shortage of PPE kits and masks to the medical fraternity of the state, Punjab government provided PPE kits to its police force in the frontline battle against COVID-19. The state already possessed 16,000 PPE kits for its health workers, and procured more kits to be distributed amongst police personnel, after all the doctors, paramedics and sanitation workers are equipped.

Many NGOs, unions and boards also came forward to donate government certified PPE kits to the healthcare workers.

## Other initiatives and advisories to prevent COVID-19 by Punjab Government



Other than those indicated above, the Government of Punjab issued various guidelines and advisories on the precautions to be taken to prevent the virus. Guidelines for social distancing, lockdown norms, religious congregations, use of air conditioning in residential, commercial and hospital settings, sanitisation of offices, public vehicles, rural areas were also issued.

Following the end of the lockdown period, the state also launched major IEC campaigns such as Mission Fateh to spread awareness about the virus, asking people to take precautions. Advisories mandating the use of masks and penalties for not adhering to the guidelines were also issued.

### Box 1: Mission Fateh



Re-opening post a curfew or lockdown must be a carefully calibrated and well-planned initiative. As people have been cooped up in their homes for a significant time, it is natural they are eager to resume normal activities. As a vaccine still remains some time away and the virus continues to spread, it is of utmost importance that people do not become complacent, and continue to practice social distancing, frequent hand-washing and all other preventive measures previously emphasized.

To this end, the Hon'ble Chief Minister launched "Mission Fateh" on 1st June, 2020. A "Mission Fateh" song was composed, with cameos by various prominent figures encouraging Punjabis to remain vigilant in the fight against COVID-19. Social media campaigns have been launched on and local and national celebrities have voiced support. To provide added incentive, the Hon'ble Chief Minister has launched an awards scheme within the COVA app for diligent promoters of the mission. Championed as "COVID-19 Warriors", those following the norms stringently will be rewarded with Bronze, Silver, Gold or Diamond certificates, as well as a T-shirt. All certificates bear the Chief Minister's signature. Citizens can register for the awards scheme through the COVA app, where they earn points on a daily basis.. More than 7 lakh citizens have actively participated in this competition.

At the grassroots level, community volunteers spread awareness through door-to-door campaigns. Media and communications officials have made the message of Mission Fateh heard through radio, television and print advertisements, as well as onground campaigns.





### 3. Testing



## 9,000 daily testing capacity

by June 2020

## 8 viral research diagnostic labs

authorized to test for COVID-19 by ICMR

under 2% testing positivity rate from March-June 2020

Testing, surveillance and containment form the mainstay of a robust attack on COVID-19. Along with prevention measures, these interventions should be implemented concurrently, and only if all components work in tandem that the virus can be controlled. They should also be treated as dynamic, and likely to be amended in the face of an evolving picture of disease spread. The following sections elaborate on the methods and impacts of these strategies, during the first phase of the lockdown.

### 3.1 Testing protocols and strategies

Universally, it has been well-established that curbing the spread of coronavirus depends heavily on an aggressive testing strategy. As per the Indian Council for Medical Research (ICMR), the gold standard of COVID-19 testing is the Reverse transcription polymerase chain reaction (RT-PCR) test.<sup>2</sup>

RT-PCR tests detect the active presence of virus in the body, and samples are taken via nasal or throat swabs. They are sensitive and specific tests, and the chance of a false result is relatively low. The main challenges of RT-PCR are logistical as the procedure is labour intensive and requires trained personnel to collect specimens. Handling the viral sample is also a potential transmission risk, and personnel must wear adequate

PPE as they conduct tests. Collected specimens are then sent to approved laboratories for the result to be processed. An additional, significant obstacle is the short supply of reagents and swabs, which are difficult to procure due to increased global demand.

Thus, Government of India, and consequently Punjab's testing strategy was one built on resourcefulness and innovation. Access to tests was prioritized for risk groups who needed it the most, and pooled sampling was deployed.

Based on the guidelines shared by the ICMR, the following groups of people are being tested, using RT-PCR tests:

- 1. All symptomatic (ILI symptoms) individuals with history of international travel in the last 14 days.
- 2. All symptomatic (ILI symptoms) contacts of laboratory confirmed cases.
- 3. All symptomatic (ILI symptoms) health care workers / frontline workers involved in containment and mitigation of COVID19.
- 4. All patients of Severe Acute Respiratory Infection (SARI).
- 5. Asymptomatic direct and high-risk contacts of a confirmed case to be tested once between day 5 and day 10 of coming into contact.

- 6. All symptomatic ILI within hotspots/containment zones.
- 7. All hospitalised patients who develop ILI symptoms.
- 8. All symptomatic ILI among returnees and migrants within 7 days of illness.
- 9. No emergency procedure (including deliveries) should be delayed for lack of test. However, sample can be sent for testing if indicated as above (1-8), simultaneously.

In hotspots and containment zones, all symptomatic ILI persons and pregnant women should also be tested.

**Note:** These guidelines were issued on 18<sup>th</sup> May 2020, and are subject to change during the course of the pandemic.<sup>3</sup>

### Random Sampling

The DoHFW issued directions that the following categories should be tested on sampling basis, by choosing appropriate sample groups from the concerned category. For each high risk category, a clear strategy for taking stratified samples must be drawn up before testing. The categories are as follows:

- a) Symptomatic individuals in highly vulnerable populations like slum areas, brick-kilns, etc. where there is high probability of spread of disease.
- b) Screening of symptomatic migrant labourers.
- c) Non symptomatic high risk persons and households in containment zones, buffer zones and red zones.
- d) Non symptomatic high risk persons and households in other zones. This would include:
- High contact Government employees
- High contact persons in the Agriculture harvest and sowing operations

- High risk persons working in congested and high contact areas
- e) High risk travellers exposed to multiple contacts such as truck drivers, bus drivers, conductors etc.

### **Pooled Sampling**

As per the guidelines of the ICMR, pooled sampling was initiated in low prevalence areas. where positivity rates <2%.<sup>4</sup> The premise of pooled testing involves the PCR screening of a specimen pool comprising multiple individual patient specimens, followed by individual testing (pool de-convolution) only if a pool screens positive. This method provides an efficient first line of screening, but it is best reserved for screening in areas where positivity rates are very low. Punjab was the first state to conduct pool testing trials in GMC Amritsar and GMC Patiala, starting on 15<sup>th</sup> April.

On 24<sup>th</sup> April, the use of pool sampling was extended to the following districts: Barnala, Bathinda, Ferozepur, Fazilka, Gurdaspur, Kapurthala, Muktsar, Sangrur and Tarntaran. Every district was asked to send 50 samples daily for pooling. By 20<sup>th</sup> June, 1,66, 000 pooled samples had been tested in Punjab.

### Sample Collection Locations

Sample collection for RT-PCR testing is initiated at hospitals, flu corners, isolation hospitals, as well as in hotspots and large out break areas. In addition, in selected areas such as slums and migrant clusters, house to house visits are conducted and samples are taken at a field station. These samples are then transported to the nearest Viral Research Diagnostic Lab (VRDL) for processing.

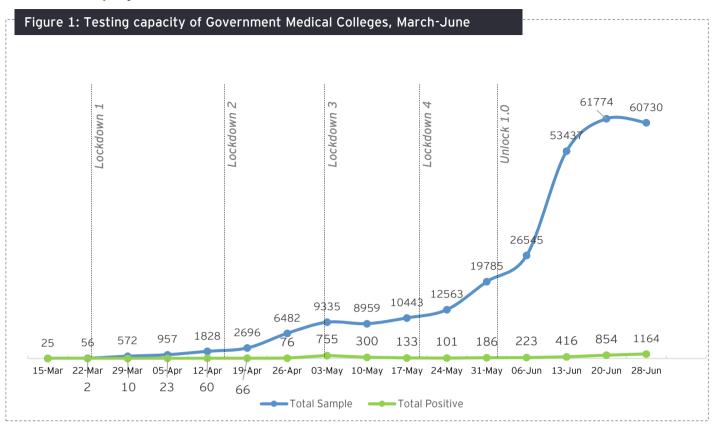


## 225 flu corners

set up at hospitals and PHCs

124 testing kiosks provided to the districts

### 3.2 Testing by the numbers



Total Sample | Total Positive

91,902 | 1,637

1,07,771 | 1,806

77,069 | 1,081

**Amritsar** 

1.78%

1.68%

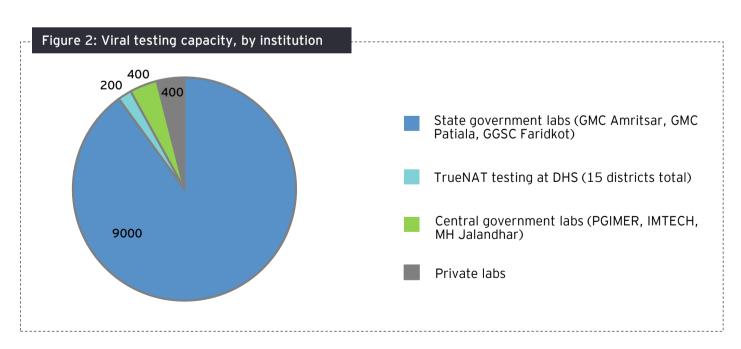
Patiala

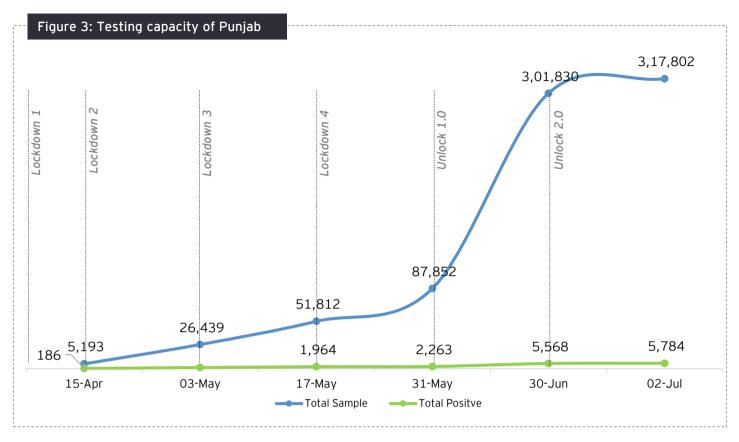
Faridkot **1.40**%

Positivity rate

Positivity rate

Positivity rate





As compared to the national average, Punjab has higher number of tests per million population and a lower testing positivity rate.

Tests per million population:

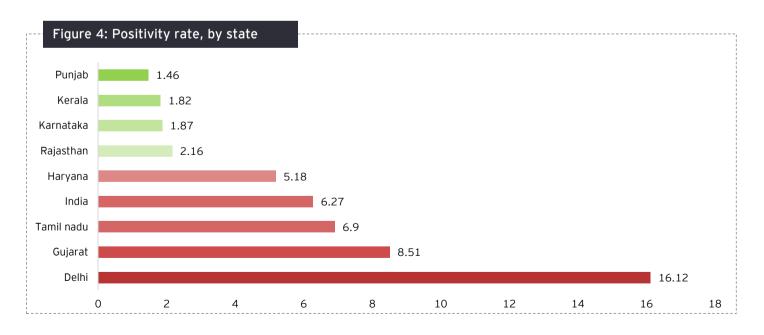
**8,385** | 5,459

Punjab | India

Positivity rate:

1.46% | 6.27%

Punjab | India



3,17,802

Total Samples tested

29,307

Contacts traced

225

Flu corners set up

124

Testing kiosks built

### 3.3 Increasing testing capacity

When the pandemic was announced in March, Punjab had only two VRDLs, in GMC Amritsar and GMC Patiala. These were authorized to begin testing with a testing capacity of 40 tests per day. Recognizing the dire need to expand capacity, four additional RT-PCR machines were purchased in April. Further, four RNA extraction machines (with automation) were also bought. These purchases increased the capacity of each lab to 400 tests each by early April. An additional VRDL lab was set up at GGSC, Faridkot. (See Box 1)

The state's testing was informed by various experts, including but not limited to members of the state's Health Sector Response and Procurement Committee, and representatives of the John Hopkins University USA, the Centre For Policy Research (based in New Delhi), and Postgraduate Institute of Medical Education and Research (PGIMER) Chandigarh.

From the outset, the state government highlighted the importance of a robust testing strategy—one that tests strategically, but also expansively. To this end, the Hon'ble Chief Minister also wrote to the central government requesting central government research institutions to be deployed towards testing citizens of Punjab. As a result of his efforts, PGIMER Chandigarh and Institute of Microbial Technology (IMTECH) Chandigarh also began testing additional samples from Punjab.

Further, anticipating a high chance of infection spread following the return of migrants and Non Resident Indians (NRIs) to Punjab, some extra measures were put in place by the state government. Learning from the experience of pilgrims coming from Nanded, the importance of testing all returnees and not relying on tests conducted prior their departure was emphasized across the state. Funding was arranged to help expand testing facilities and capacity.



In March, the overall testing capacity of Punjab government facilities was 200 tests per day. By June, the capacity was further scaled up to 9000 tests per day. The state government is also working to establish four new labs: GADVASU Ludhiana, RDDL Jalandhar, Forensic Science lab Mohali and Punjab Biotech Incubator Mohali.

<u>Table 1</u> provides a list of government VRDLs in Punjab. In addition, four private labs in the State of Punjab have also received ICMR approval for testing. This information is as of June 2020.

As per the ICMR, the cost of COVID-19 testing in accredited private labs may not exceed INR 4500. Government samples are sent to the approved private labs once the cumulative capacity has been exhausted. The cost is fixed at INR 2500 per test.

Table 1: Government VRDL Labs conducting COVID-19 testing, as of June 2020

VRDL Lab	Districts Attached
GMC Amritsar	Amritsar, Gurdaspur, Hoshiarpur, Kapurthala, Pathankot, Tarn Taran
GMC Patiala	Ludhiana, Mansa, Patiala, SBS Nagar, Sangrur, Fatehgarh Sahib, Rupnagar
PGI, Chandigarh	SAS Nagar
GGSMC Faridkot	Faridkot, Fazilka, Ferozpur, Moga, Muktsar, Bathinda,Barnala, Jalandhar

### Box 2: Setting up a Viral Research and Diagnostic Laboratory at GGSMC, Faridkot



Initially, there was no viral testing facility available in GGSMC, Faridkot. While a request had been sent to the ICMR at least six months prior to the pandemic, it remained pending. However, given the increasing number of COVID-19 cases, adding another VRDL lab to the state became essential. The college already owned three PCR machines: one each in the microbiology department, the biochemistry department and in the medical research lab but these had never been used before for viral testing. Out of the three, only one machine, from the medical research lab, was deemed fit to use for this purpose.

There was a shortage of technical expertise, so experts from Punjab Agricultural University (PAU) as well as Central University Bhatinda were recruited. In this way, a core group was formed. The purchase of reagents was a vital step, which helped in obtaining approval from the ICMR for COVID-19 testing. Further, a team of doctors, lab technicians and scientists was assembled, and they were sent to GMC Amritsar for training for one week.

Due to the lockdown, buying new PCR machines was not feasible. Thus, three RT-PCR machines were borrowed from PAU Ludhiana, where the machines were being used for plant genetic studies. It was soon determined that testing capacity would need to be amped up further. An automatic RNA extractor of Kaizen Make was procured, but sourcing reagents and extraction kits amidst the lockdown proved difficult. Instead, a high volume RNA extraction machine was considered as the next best option. These were procured with the help of other medical colleges, as well as the state government. The machine is capable of extracting RNA of up to 3000 samples/day.

Another challenge presented itself in the form of testing documentation and report generation. Initially, this was carried out manually but it led to many errors. Thus, a shift to a computerized system was inevitable. This allowed several people to work simultaneously to feed date into the system and generate reports. To support existing manpower, the Deputy Commissioner arranged for help from other institutions. Six computers with networking were installed, and data was recorded using Microsoft Excel. With the introduction of the high-volume RNA extraction machine, manually entering data into Microsoft Excel became difficult.

The IT department was roped in, and a new software was developed. At the same time, the state government introduced RT-PCR app based form filling, in coordination with the central government and ICMR. At present, the use of multiple platforms is contributing to increased discrepancies, and there is an urgent need for a single, central platform to ensure data entries are not repeated. With the gracious support of other departments like social and preventive medicine (SPM), pathology, biochemistry, reports are being audited meticulously at GGSMC, which minimizes chance of error.

Despite innumerable challenges, the testing facility was set up in record time through the collaborative efforts of faculty members, paramedics, lab technicians, as well as the support of the state administration and neighbouring research institutions. The experience of setting up the VRDL at GGSC Faridkot provides a roadmap for setting up other such testing labs in the state.

### 3.4 Additional testing methods



### **Rapid Testing Kits**

Another type of molecular diagnostic testing was briefly employed—the Rapid Antibody Testing Kit (RATK). The biggest benefit of this type of test is the time to taken to deliver results: it is a point-of-care test, meaning results are instantaneous at the time of testing, and samples do not need to be processed in a lab. Further, given the limited number of RT-PCR tests possible, rapid antibody tests provided a strong alternative.

Positive tests indicate exposure to SARS-CoV-2 while negative tests do not rule out COVID-19 infection. There is a higher chance of false negatives using the rapid antibody test. Thus, such kits should be employed as a surveillance technique, not a diagnostic tool

Initially, approximately 10,000 Rapid Antibody Testing Kits were supplied to Punjab by Gol. However, it appeared that the kits were delivering false results. Following directions from the ICMR on 21st April 2020, as well as the recommendation of the State Public Health Advisory Group, these have been discontinued in Punjab. A letter dated 27th April was received from ICMR blacklisting two Chinese companies: Guangzhou Wondfo Biotech and Zhuhai Livzon Diagnostics. The kits received in Punjab from ICMR were from the latter company and were returned due to faulty results.

In July, the state government had procured reliable test kits to begin Rapid Antigen Testing, which is also a simple, point-of-care testing modality, that has been recommended by the ICMR.

### TrueNAT Testing

In May, another modality of COVID-19 testing was approved by the ICMR. TrueNAT is an indigenously developed, portable version of CB-NAAT or Cartridge Based Nucleic Acid Amplification Test, also known as the Genexpert test. Both these tests were initially developed for testing tuberculosis.

The main advantage of TrueNAT is that the virus is lysed during testing which minimises risk of infection. TrueNAT testing does not require a special bio-safety cabinet, unlike traditional RT-PCR testing. As it is significantly less resource-intensive, it can be initiated at district hospitals, and Primary Healthcare Centres (PHCs). In this way, TrueNAT testing addresses the last mile barrier for COVID-19 testing.<sup>5</sup>

Test results are processed locally and received faster—within a few hours. It is envisioned to be particularly useful for testing pregnant women and patients undergoing elective surgery.

By June, the district hospitals in Barnala, Jalandhar, Ludhiana, Mansa, Pathankot, Bhatinda, Fazilka, Gurdaspur, Hoshiarpur and Kapurthala had begun to test using TrueNAT machines. These machines made a significant contribution to increasing the states testing capacity.

### 4. Surveillance and Contact Tracing



965 rapid response teams deployed

38 lakh households surveyed

**18,929 people** put under home quarantine

Surveillance strategies for COVID-19 are aimed at curbing the spread of the disease and supporting public health authorities manage the risk. They are also essential towards resuming economic and social activity, as well as for monitoring the course of the virus from an epidemiological perspective. Even in areas where there are few or no cases, robust surveillance must take place in order to detect cases early on, before widespread transmission.

At the district level in Punjab, the surveillance strategy unfolded both within institutions, i.e. in hospitals and healthcare centres, as well as at the community level.

### Hospital-based surveillance

Punjab's hospital based-surveillance strategy builds on the existing ICMR strategy, with the addition of the following categories: patients from flu corners, non ILI patients admitted in hospitals, patients with SARI or ILI symptoms, pregnant women and healthcare providers.

### Community-based surveillance

Individuals in the community play an integral role in the surveillance of COVID-19. Community-based surveillance is conducted by the community monitoring and reporting potential cases. Members of Rapid Response Teams spearheaded door-to-door surveillance efforts at the district and block levels. They are supported by community-level workers (ASHAS, ANMs or MPWs). In some cases, the local

police and volunteers have also pitched in to help. In the initial days, surveillance efforts were targeted at NRIs returning from abroad. Although their residential addresses were provided by GoI, it was found that many returnees were not staying at the official address provided on their passports. Thus, tracking them proved to be a herculean task. However, with the sustained efforts of the district administration, Rapid Response Teams and many volunteers, it was carried out successfully.

As cases began to rise, surveillance strategies were also accordingly adapted. In June, the Hon'ble Chief Minister announced a large scale door-to-door survey, bolstered by the use of a mobile-based app: "Ghar Ghar Nigrani" developed by the DoHFW. ASHA workers and community volunteers are at the forefront of this exercise, which seeks to survey the entire rural and urban population above the age of 30 years, as well as those with co-morbidities or SARI/ILI symptoms. ASHA workers and community volunteers are provided INR 4 per head as incentive, and their supervisors given a stipend of INR 5,000 per month.

ASHA workers are particularly encouraged to use the mobile app if possible. In cases where they are unable to do so, a community volunteer can be involved. There is also an online dashboard that has been built for tracking purposes. Civil surgeons have also appointed nodal officers in each district to support coordination.

### 4.1 Contact tracing

Contact Tracing refers to the practice of interviewing recent patients to learn where, when and to whom they might have passed along the disease. The goal is to break the chain of transmission by alerting people who might have been exposed, so that they can isolate themselves and seek timely treatment if required.

Particularly in the early stages of a pandemic, prior to community transmission, contact tracing is a useful mechanism by which to curb disease spread. However, it is a trust based system that depends largely on patients providing accurate and honest information about their movement history. Cases where citizens hide information have typically resulted in chaotic outcomes.

### Steps involved in Contact Tracing



Positive case is interviewed to gather information on exposed contacts . Patient is isolated. All close contacts are informed. Contacts are quarantined for 14 days.

Close contacts are regularly monitored for symptoms. Those with symptoms are tested. New cases are thus detected in a timely and efficient manner.

### Leveraging technology

One way to improve contact tracing is through the use of technology. Digital technologies can help to identify those people who had come in close contact with an infected person over the incubation period. Further, location-based alerts and crowdsourcing clusters is another use. The COVA app has been designed to serve both these purposes.

Individuals exposed to the virus can report themselves on the app, and update their status post the 14 day quarantine period. Thus, the app also functions as a direct source of data for administrators monitoring outbreaks. Those in quarantine can also be tracked to their home via the geo-fencing feature. If a citizen moves further than 300 m away from their base location, it is registered as a breach on the app, and the relevant authorities are notified.

Any contact tracing platform requires a certain threshold of active users in order to be of use, and for the backend functioning to operate smoothly. The large number of people using the app help to create big data, which in turn can be used to track the disease and inform future policy on the same.



### 4.2 Quarantine



Health department officials place a home under quarantine in Fatehgarh Sahib

Tracing of a travel-related/unrelated suspect case of COVID-19 is followed by rapid isolation of confirmed cases in designated health facilities and line listing of all contacts of such cases. Home quarantine is applicable to all such contacts of a suspect/confirmed cases. Any international traveller is subject to 7 days institutional quarantine, after which, should they test negative, they may return to their homes for another 7 days of quarantine.

Dedicated quarantine facilities were created in almost all districts. In case of shortage of dedicated quarantine facilities, the district administration is allowed to use 50% of the capacities of the COVID Care Centres identified by them for the purpose of quarantine of these people. Symptomatic persons are taken to the District COVID Health Centre/Isolation Facilities.

### Home quarantine

Home quarantine is applicable to all such contacts of a suspect or confirmed case of COVID-19. It was decided that home quarantine was applicable for 14 days for all asymptomatic returnees from abroad, or symptomatic persons who have tested negative. Regular follow-ups by the health teams was instituted. Those in quarantine are required to give an undertaking and strictly follow the guidelines for home quarantine, which include staying in a well-ventilated room, preferably with an attached, separate toilet. Keeping distance from elderly, comprised family members is also advised.

### Institutional quarantine

As per the MHA guidelines, district administration identified different category of hotels/motels as institutional quarantine for international travellers. The hotel owners charges people for rent and food, as per the rates fixed by the office of District Magistrate. Further, a nodal officer was appointed to take measures to keep persons arriving in the district from foreign countries via the district airport, under institutional guarantine for 14 days in the hotels.

#### Quarantine facilities for frontline workers

The Government of Punjab also identified the requirement of quarantine facilities for Punjab Police, Punjab Armed Police and Para Military Force personnel who are actively involved on the frontlines. A total of 78 quarantine centres (predominantly educational and health institutes) are mapped across the state.

Hotel and suitable lodging facilities have also been arranged for doctors, paramedical staff and support staff providing medical care to COVID-19 patients by the district administration of most districts. Staff may decide to stay at these facilities to protect elderly/vulnerable family members from exposure. Those who are on rest for one week on rotation basis may also opt to quarantine at these facilities, instead of in their homes.

### Box 3: S.B.S Nagar, Punjab's Turnaround Story

The first case of COVID-19 in Punjab was reported in Nawanshahr, SBS Nagar. A 70 year-old pilgrim returned from a visit to Italy and Germany in early March. He then attended the *Hola Mohalla*, a religious congregation, from 8<sup>th</sup> to 10<sup>th</sup> March. He subsequently died of cardiac arrest and tested positive for COVID-19 after his death. At least 27 people contracted the virus from him, including 18 of his family members and residents of his village in Nawanshahr.

The patient was the fourth person to die from the virus in India. Naturally, the case sparked alarm within the state, and promptly, the administration sprang into action. On 20<sup>th</sup> March, section 144 was imposed in Shaheed Bhagat Singh (SBS) Nagar-the first district in Punjab to do so.

SBS Nagar thus became Punjab's first containment zone, and all 15 villages of Banga subdivision were sealed. It was estimated that after his return to Punjab, the pilgrim came in contact with at least 90 others, who, in turn, came in contact with hundreds of more people. Tracing all these contacts was no simple task, but ASHA workers and RRT members worked tirelessly to visit 100% of the houses in these 15 villages. An estimated 30,000 people were placed in home quarantine.

The door to door surveys helped determine which patients were at the highest risk of contracting disease, and should be tested first. Swab samples were collected for an estimated 400 people, of which 377 were found negative. The administration set up a control room to monitor activity, headed by the additional DC.

An ASHA worker conducts door to door survey in SBS Nagar

The administration also formed a Whatsapp group, comprising of 100 key members from Banga. The group brought together a diverse mix of helpers, from village *sarpanches* to agile and savvy youngsters. The group provided an accessible central platform and enabled more efficient coordination for logistical challenges such as doorstep delivery of essential commodities. A streamlined ration distribution system was put in place. Further, a grievance redressal mechanism was developed to seek continuous feedback on how to improve.

Over 200 police officers were also deployed to the area, in-charge of ensuring restrictions on movement were complied with. The villages were also sanitized regularly.

NGO workers, Guardians of Governance and community volunteers all pitched in. The local gurdwara, *Gurdwara Singh Sabha* cooked nutritious food daily and supplied it to patients at the Civil Hospital.



On the medical front, doctors and staff of the Nawanshahr Civil Hospital, and other nearby civil hospitals, played a particularly pivotal role. They bravely battled a large influx of patients suffering from a new and unknown disease. They treated patients medically, but also took care to counsel and motivate them. This was very important as patients were placed in isolation wards, with no visitors allowed. A music system was installed to play *Gurbani* for patients.

On 26<sup>th</sup> March, there were 19 confirmed cases in SBS Nagar. For the next 28 days, the district reported not one single new case, even as it continued to test diligently and actively. The success of this turnaround story can be attributed to the hard work, faith and resilience of the entire community.

### 5. Containment strategies

The aim of a containment strategy is to help authorities stop the development of an infectious disease when it is initially detected, and before the virus is able to spread more widely. Detection, investigation, and reporting of the first cases must happen quickly for rapid containment to be possible.

As per the containment plan of the Ministry of Health and Family Welfare (MoHFW), Punjab followed a scenario-based approach for containing virus. The different possible scenarios, or the four stages of transmission are:

- Stage I -Travel related cases reported in India
- Stage II Local transmission of COVID-19
- Stage III Large outbreaks amenable to containment
- Stage IV COVID-19 is endemic to Punjab

Containment strategies use geographically rooted approaches in which cases detected within a defined area are treated, close contacts are quarantined and those exhibiting symptoms (and sometimes other close contacts, depending on testing capacity) are tested. In addition, the containment area and its surrounding buffer zone are subjected to intensive surveillance.

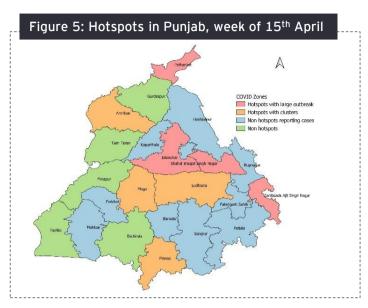
A containment zone is an area around the epicentre of cases in a village/ward based on the number (15 or more) of positive cases. The physical perimeter of the containment zone should be defined clearly in terms of (a) access to area (b) size of the area.

A buffer zone is a concentric area around the containment zone. It is defined for the purpose of intensive house to house surveillance and contact tracing. The radius of the buffer zone may be up to 1 kilometre.

The MoHFW issued detailed guidelines regarding containment zones. Following the end of Lockdown 1, hotspots (red zones) districts were characterized across the country, as illustrated in <u>Figure 5</u>. These districts were included as hotspots based on the following criteria:

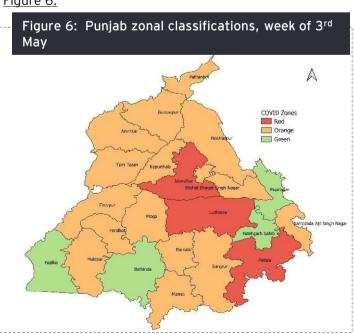
- Highest case load districts contributing to more than 80% of cases in India
- Highest case load districts contributing to more than 80% of cases for each state in India
- Districts with doubling rate less than 4 days (calculated every Monday for last 7 days, to be determined by the state government)

The Health Secretary requested state governments to focus on containment efforts in these hotspots, thereby curbing transmission.



At the end of April. The MoHFW released a comprehensive list categorizing districts into red, orange and green zones, depending on their number of cases. The categorization was based on a host of factors, including number of cases, doubling rate, fatality rate, testing ratio and positivity rate. A district was classified as a green zone if there were no cases so far, or there was no reported cases in the last 21 days.

States were allowed to add additional red and orange zones as they deemed fit, but they could not relax the zonal classifications communicated by the Ministry. However, the Ministry emphasized the list was a dynamic one, and would be updated on a weekly basis to reflect changes. The zonal classifications in Punjab during the first week of May are as shown in Figure 6.



### 5.1 Forming containment zones

States were asked to demarcate containment zones within orange and red zones. Containment zones in could comprise of residential colonies, *mohallas*, municipal wards etc. In rural areas, villages or clusters of villages could be designated as containment zones. Such zones were to be accompanied by a surrounding buffer area, which would also be subject to focused surveillance efforts.

In containment zones, strict perimeter control is implemented, with:

- Establishment of clear exit and entry points
- No movement allowed except for medical emergencies and essential goods and services supply
- No unchecked influx of population to be allowed
- People transitioning to be recorded and followed through the Integrated Disease Surveillance Programme (IDSP).

This should be accompanied with proactive house to house surveillance by RRTs and community workers, timely testing, contact tracing, and simultaneous promotion of prevention and advocacy measures. In the surrounding buffer zones as well, surveillance should remain robust.

### 5.2 Micro-containment zones

In June, Punjab adopted a micro-containment strategy. The strategy is focused at even earlier detection, and areas with cases as few as 5 are declared as micro-containment zones. Thus microcontainment zones can be a street, two adjoining streets, a mohalla, a village or a small cluster of villages. The population should not exceed 500 within any micro-containment zone. A microcontainment zone will remain as such for at least ten days. If in the last five days, no new cases are reported, the zone may be opened up. Otherwise, a period of micro containment would be extended by one week at a time.

All other features of containment zone are applicable to micro containment zones. To monitor contact tracing, testing and surveillance in micro-containment zones, a Committee is constituted under the chairmanship of the Additional Chief Secretary Health & Family Welfare. District administration notifies containment



and micro containment zones, in consultation with the committee. The principle underlying this detailing is to focus on effective containment of smaller/limited areas

Early identification has proved successful in containing the spread of the infection. Thus the whole population in the containment areas is screened regularly and all possible suspected cases of COVID-19 are tested and positives shifted to isolation centres.

The option of isolating in government facilities is being provided in bigger cities of Ludhiana, Patiala, Jalandhar and Amritsar, for persons with comorbidities residing in micro-containment zones. If they wish, they can stay in these facilities along with one accompanying attendant.

The concept of micro-containment zones, pioneered by Punjab, was appreciated by Hon'ble Prime Minister of India, for its innovation and efficiency. He suggested other states follow the same strategic approach to effectively counter COVID-19.

### Box 4: Punjab's first COVID-19 serological survey

Serologic tests detect those who have been previously infected and have developed antibodies. Such tests can help provide clues about the spread of the virus across the population. As part of nation-wide effort by ICMR, a sero-prevalence survey was conducted in four high-burden districts -Jalandhar, Gurdaspur, Ludhiana, Patiala- using enzyme-linked immunosorbent assay (ELISA) test for detecting

Immunoglobulin G (IgG) antibodies in serum samples. In each district, using cluster sampling design, 400 individuals (40x10 clusters) from urban and rural area proportionately have been sampled. Sero-prevalence of 0.5% in Jalandhar and 0.75% in Patiala has been reported as of 30<sup>th</sup> June 2020. This strategy will be extended to other districts also to detect sero-prevalence in high risk groups.

### Box 5: An innovative pilot study in Kharar, Mohali

A pilot testing study and survey has been initiated in Kharar, Mohali in collaboration with Centre for Policy Research, New Delhl. It has three main distinguishing characteristics from current initiatives:

### 1. It is spatially structured - sampling will be done polling booth wise

The reason for this is that even if one looks at the cases based on data of cases in June, the location of the epidemic is very spatially concentrated. Earlier (in data up to 29<sup>th</sup> April) it was found that less than 2% of the 11,323 polling booths in Punjab accounted for 80% of cases. Even in Kharar itself, two polling booths in Nayagaon accounted for half the cases detected.

2. The survey is designed to learn if appropriate observable risk indicators that can be found for people who are at higher risk of being infected As can be seen from the results of existing surveys, including syndromic surveys and the various initiatives to classify and test high risk groups, it has not been possible to locate observable risk indicators. This initiative will be accompanied by a survey administered to the potential individuals to be tested so that one can learn if there are such indicators. The design of the pilot is such that the survey can be modified depending on the test results of various categories. The results will be benchmarked to

existing positivity of various categories and the attempt would be to exceed these for evaluation of pilot.

# 3. It is designed to understand whether there are systematic differences in response rates, i.e., the persons who respond (show up to be tested) after being requested to appear for testing

In many situations, in India and internationally, it has been observed that people who are requested to participate in the survey do not do so – the non-response rate. In a situation like this, it is important to understand whether the non-response is random or systematic, i.e., related to factors which will affect our ability to find observable risk indicators. In Kharar, the initiative to request people from different wards to participate in testing has had a response rate of 20% to 30%. This survey design is therefore structured to be able to study the non-response behavior.

In a second phase - perhaps in the second week - nudges can be added to can increase participation, e.g., a pamphlet explaining the benefits of early detection to the infected person and to the family, a telephone call reminder on the morning of the survey, etc. depending on the response seen in the first week. This can then be integrated with better classifications of high-risk individuals as the pilot progressess into the next stage.



Even with geographical containment strategies in place, stopping the virus from spreading may not be possible, as new cases may appear simultaneously in several locations making containment operations unfeasible. No single containment measure itself is adequate to stop the spread of the virus, and no single measure can be applied successfully 100% of the time. Nonetheless, combining prevention techniques with aggressive testing, robust surveillance and strict containment can halt transmission significantly.

Public health measures may not be able to fully contain the spread of COVID-19 because of the nature of the virus, but they will still be effective in delaying the onset of widespread community transmission, reducing peak incidence and its burden on healthcare services. Further, diminishing the size of the outbreak or suppressing its peak can help reduce mortality by allowing health systems the time to scale up and respond. The section on infrastructure details the states efforts towards strengthening medical infrastructure and capacity.

### SPECIAL SECTION

### Containment stories from across Punjab

Like any infectious disease, COVID-19 does not spread uniformly. Epicentres are constantly changing, and as a consequence, so are challenges and solutions to outbreaks. While central and state government protocols have helped to anchor the wider response to COVID-19, the local district administration has been instrumental in shaping on-ground efforts to control disease spread. The following section features experiences from different districts in Punjab that have faced outbreaks --bringing to light obstacles faced, hardships overcome, and novel solutions produced.



Frontline workers prepare to test and treat suspected patients



### Rajpura, Patiala

Rajpura is an important subdivision/tehsil of Patiala district of Punjab, situated 26 km to the north-east of Patiala city. Rajpura Municipal Council has total administration over 19,352 houses and total population of 92183 as per Census 2011.

On 16<sup>th</sup> April 2020, a resident of New Grain Market in Rajpura, tested positive for COVID-19. She resided in a densely populated area, which prompted officials to take swift action towards containinment. The following steps were pivotal to containing COVID-19 in Rajpura:

- On 21<sup>st</sup> April, Rajpura was declared a containment zone-the first in Patiala district.
- The District Administration formulated a five member Committee to trace the contacts of patients testing positive for COVID-19. The Committee included Additional Deputy Commissioner, Sub Divisional Magistrate (SDM) Rajpura, District Family Planning Officer, District Epidemiologist and SMO Rajpura



Guardians of Governance joined the containment efforts in Rajpura

- Patients were rigorously interviewed, as were their primary contacts. The people and locations visited were tracked via Call Details Records (CDRs), and each contact was then called. Information was also sought from neighbours and the wider community.
- Based on the above, contacts were traced and their level of exposure with regard to the carrier was analyzed. Contacts were then segregated in two categories: high risk and low risk.
- High risk Contacts were given priority for testing. Low risk contacts were screened extensively – asymptomatic patients were placed in quarantine whereas those who displayed symptoms were tested.
- As part of the exercise, detailed contact trees were also drawn, and a toll-free helpline was put in place for the general public to seek guidance.

Average number of contacts traced per positive patient	17.66
Total contacts traced	777
High risk contacts	183
Low risk contacts	593
Samples taken	205
Positive cases	44 (21%)

### Observations by District Administration

- Sharing of utensils by more than one person exposes the negative person to disproportionally high degree of probability of contraction of infection.
- Joggers and runners, who tend to run in close physical proximity, also exhibited an increased tendency to spread the virus between themselves.
- In many cases, domestic helpers were observed to be quick spreader of the virus. This can be partly attributed to their greater exposure to a number of households, which naturally increases the risk of contraction of the virus through fomites. The vice-versa (from service-seeker to domestic helper) also holds true.
- Some members within the same family seemed more resistant than others, which may be either due to strong immunity to infection, or restricted proximity with the positive patients.

#### Learnings

- Contact tracing should be given priority as a strategy tool in stemming the growth of COVID-19 clusters. Prompt action in getting initial information from a positive patient is vital.
- Social intelligence can be a good tool in involving the community in combating the virus. It also fosters good communication between administration and the citizens.
- Clear directions across various arms of the administration and action plans have proven to yield better results in tracing contacts.
- Surveillance teams should be used for doorto-door screening in containment zones.



A passenger is screened for fever upon arrival at Mohali International Airport



### Mohali City

SAS Nagar (Mohali) is a major commercial hub and an emerging IT powerhouse in the state. Located in the northeast part of Punjab, the district has three subdivisions- Mohali, Kharar, and Dera Bassi. It is a densely populated district with a population of 9, 94,628, according to Census 2011.

Certain factors made Mohali especially vulnerable to COVID-19. Primarily, the city is contiguous to the territory of Chandigarh, Haryana and Himachal Pradesh and hundreds of people travel back and forth daily for work. Moreover, the dense population and presence of an International Airport also contributes to risk. The first COVID-19 positive case in Mohali was detected on 20<sup>th</sup> March 2020. **Contact tracing** was initiated to track down the contacts of the first patient. A total 31 contacts were traced, of which 14 were high risk contacts and 17 were low risk contacts. In Mohali, two separate strategies were designed for urban and rural areas, as outlined.

#### **Urban centres**

The administration formed Rapid Response Teams, including a sector officer (SDO, Excise) Officer), health worker, police personnel, and a junior-level administrative officer, to oversee the overall containment strategy. Areas covered by these teams were demarcated on the basis of jurisdiction of police stations in the subdivision. In early March, most suspected cases were abroad returnees. Data of these returnees were obtained from airport authorities, and household level tracking initiated. Crowd sourcing was helpful here, as often neighbors were the first sources in identifying returnees. Those who had returned in the last 14 days were homequarantined-posters were pasted outside their house to signal the same, and their wrists were also stamped for identification purposes. Their contacts were also traced and screened. If a patient was reluctant in divulging their history, they were counseled by the district administration, political leaders of the area, relatives, etc. CDRs were also utilized.

Initially, in Mohali, cases were scattered across the sectors rather than appearing in clusters. Although the curfew was already in place by this time, streets leading to the houses of confirmed patients were also sealed as an added measure. The house and street of the positive patients were sanitized and a Police *Naaka* was deputed at the entrance of such streets for 7-14 days

In Jagatpura, the administration faced a challenge, given the population density in the slum areas bordering Chandigarh, whose slum area Faida is a contiguous zone/twin of Jagapura with porous borders across both territories. Home quarantining suspected people here was not possible as 5-10 people were residing in a single room. Thus, a quarantine centre was made at Meritorious School in Sector 70 of Mataur. Suspected cases along with members of Tablighi Jamaat were kept at this centre. Some additional measures taken included:

- A strict curfew was imposed in Jagatpura with the support of the Central Reserve Police Force (CRPF). Drones were also deployed to monitor the curfew implementation in the area.
- A health team conducted door-to-door surveys and collected 150 samples. All the samples were found negative. However, as suspected cases may develop symptoms later, the curfew was extended for 14 days more and door-todoor screening of all households was continued.
- 3,500 food packets of dry ration were distributed by the administration to all the households to ensure that no food shortage takes place. Each packet contained enough ration to feed a family of 5 two meals a day for a week.

### Rural centres

Containment in rural areas is relatively easier owing to the geographical and community setup of villages. The experience of containing COVID-19 in **Jawaharpur**, a large village located in Dera Bassi Tehsil with the population of 2352 sheds further light on rural containment strategies.

The first positive case of COVID-19 in Jawaharpur was discovered on 4<sup>th</sup> April, 2020. To identify the source and to minimize the spread of infection, intensive testing was done on the very first day and around 54 samples were taken of the primary and secondary contacts. The following steps were also taken:

 Sarpanchs from the villages were actively involved in administrative decisions. Only one entry for each village was kept open.



Door to door survey of families in Village Jagatpura, Mohali by the Health department, led by Dr. Simran and Jagdeep Sehgal, SDM Mohali

- Pedigree table using the revenue module were made for efficient contact tracing. Suspected households were sealed
- To ensure regular supply of essentials, Metro Supermarket and IDBI Bank were roped in as supplier and facilitator of digital transactions respectively. Few villagers were designated for supply purposes in villagers on a voluntary basis. In situ consumption of dairy products was promoted.
- To keep the morale of the frontline staff high, as well to promote healthy practices, rounds were made regularly using a Public Address (PA) system.
- A 24-hour helpline desk was also set up and numbers of service providers were flashed in the village for round the clock assistance of the villagers. The '108' ambulance was also stationed at the village for emergencies.

### Learnings:

- Prompt action in getting initial information from a positive patient and intensive contact tracing is vital in checking the spread of COVID-19.
- The formation of ground teams and maintaining coordination across all levels of administration was very important.
- Local communities were actively involved in both urban and rural areas. The establishment of direct communication channels and the presence of ground teams to address the concerns of people helped greatly. Often, neighbors turned out to be major help in contact tracing of positive patients.
- The use of drones for surveillance purposes in Jagatpura owing to the congesting nature of locality was an innovative method deployed by the administration. CDRs were obtained, which were very useful in ensuring tracing was accurate.



A recovered patient captures a selfie with the medical team at Jalandhar Civil Hospital, ahead of his discharge



### **Jalandhar**

Jalandhar lies in the Doaba region of Punjab and is an important agricultural and industrial district in the state. The district has a population of 21.9 lakhs as per Census 2011, making it the third-most populous district in Punjab after Ludhiana and Amritsar. Owing to the size and high population in the district especially in urban areas, it was critical that the spread of the virus is contained.

In urban areas, the first case was found positive on 26<sup>th</sup> March in Nizattam Nagar. This spurred the district administration into action to control the infection spread. Prompt initial action by neighbors of the positive patient helped the health authorities in getting a head start in their containment plan. Subsequently, three adjoining streets were sealed off owing to huge population density and congestion in urban areas, and all the contacts were tracked through CDRs. These contacts were home-quarantined.

The following additional measures were taken by the district administration:

- All 14 Flu corners in the district were used to collect samples. District administration used its Rapid Response Teams (RRTs) and surveillance teams effectively for contact tracing and screening purposes. As of 7th June 2020, the district administration has 36 Rapid Response Teams (RRTs) with 279 team members engaged in surveillance activity. Of these, 25 RRTs with 220 members are working in urban centres. The teams comprise one Medical officer and two other health workers, mostly ASHA and ANM workers.
- Further, in order to assist the existing RRTs, 5
  more special RRTs were constituted when the
  cases increased and these teams were
  stationed in five urban areas of Jalandhar Aman Nagar, Dada Colony, Garha, Gunza and
  Bhargo Camp. Resident Medical Officers and
  pharmacists were part of this

- team and they were provided with vehicles, drivers and medicine kits. Two mobile teams to collect samples from hotspots, slum areas, hotels, and government quarantine facilities, etc. were also formed.
- Contact tracing was a key step in curbing virus spread. CDRs were also scrutinized to ascertain the contacts of positive persons who were otherwise reluctant to divulge information. Apart from telephonic interviews, a pen and paper was left with positive patients in their isolation wards so they could write the names of possible contacts they might remember later on. Media also assisted the health teams in contact tracing.
- Mobile numbers were entered for home quarantine. In the initial phase, geo-fencing was done by identifying the movement of quarantined people through mobile towers, but this was not useful if the patient left the house for nearby places. The COVA app proved more effective in tracking the movement of quarantined people if they stepped outside their homes.
- In containment zones and the areas sealed off by the administration, the supply of essential commodities continued. Local vendors would come at an allotted time and stand outside the sealed off-street/Naakas. Police would announce the time of the vendor's arrival beforehand and one family member from each household will come at an allotted time to collect the supplies. Police would oversee this process to ensure that social distancing norms are followed, patrolling the area on bikes.
- It was observed that most approached the private medical practitioners in their neighborhoods despite the spread of COVID-19 due to a deeply ingrained trust in these practitioners. These clinics were emerging as centres of spread as people were reluctant to go to flu corners even when they developed symptoms and kept going to local practitioners. Such practitioners were coopted and were instructed to send the patients to Civil Hospitals with a signed slip. This helped the administration in curbing spread significantly.



District Administration provides milk to residents at their

#### Learnings

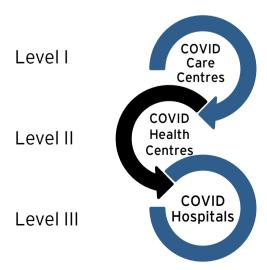
- The main highlight of this model has been the increased sampling by the health professionals to identify the asymptomatic patients and via that preventing community spread in the district.
- Further, the immense support received from the private medical practitioners in the community, who used their trust and influence among the locals to educate them and redirect them to government facilities also played a major role in containing the spread of virus. This greatly boosted the contact tracing initiatives of the district.
- The major strength of Jalandhar's containment strategy has been the increased sampling and testing, particularly in urban centres, by the health department which has helped the state in identifying the asymptomatic patients and thus ensuring that community spread has not occurred.

### 6. Infrastructure



Even as numbers of COVID-19 cases remained controllable, the looming threat of community spread—which would lead to a considerable increase in demand for health facilities—made cementing health infrastructure in the state a key priority. This meant plying government facilities with sufficient resources, identifying isolation wards, roping in private healthcare as needed, and more.

With guidance from MoHFW, the government of Punjab committed itself to identifying dedicated institutions for COVID-19 patients. Three types of facilities were demarcated, each catering to different levels of patient care.

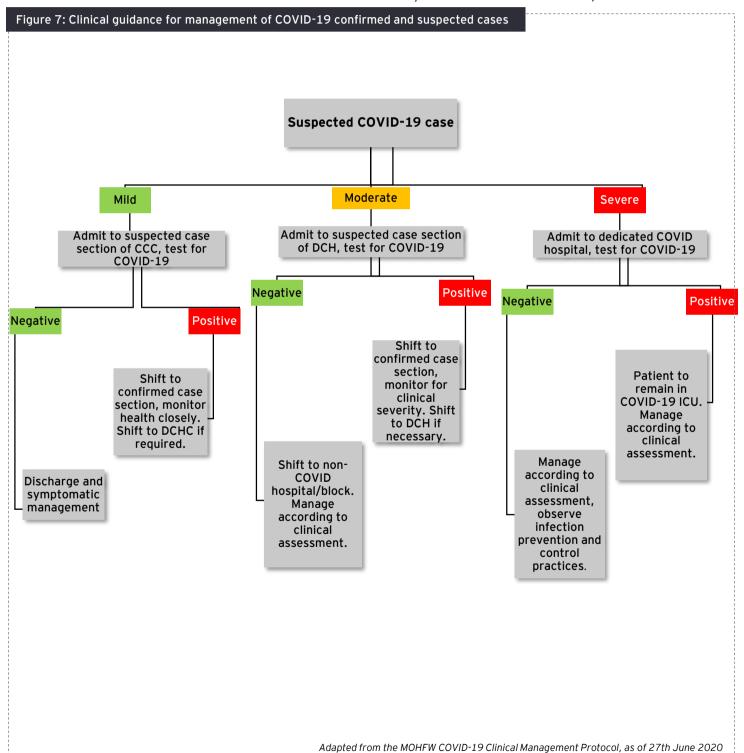


This system of allocation was designed to ensure optimal utilization of available resources, and reserve Intensive Care Unit (ICU) beds for patients who require them the most. Thus, COVID Care Centres (Level I) were envisioned for patients with very mild symptoms, and were typically fashioned out of schools and college campuses. Those diagnosed by doctors as clinically moderate were placed in dedicated COVID health centres (Level II). COVID hospitals (Level III) were reserved for severe cases, or patients with significant co-morbidities requiring extensive care. Protocols were placed to transfer a patient from Level I and Level II facilities, should their condition deteriorate. Further, suspected and confirmed cases were kept separately, in an attempt to restrict further spread. The three types of COVID centres formed the backbone of the immediate response to the crisis. At all three levels, beds were operationalized in a phased manner, so as to calibrate resources to the number of cases occurring in the state, thereby reducing the chance of over-anticipating need. Looking ahead, the state government also continued to work towards expanding health infrastructure, by planning constructing works, installing state of the art ICUs in district hospitals, and leveraging private hospitals. The Hon'ble Chief Minister also emphasized from the outset that the private sector must play an extensive role in treating COVID-19 patients, and these institutions were leveraged accordingly.

Instituting a tiered system helped reserve critical care beds for the most vulnerable patients as well spread care across facilities, so as to not burden any particular hospital. However, the success of such a system is entirely dependent on the efficient transfer of a patient to a higher-level facility, should their condition worsen. Keeping this in mind, an in-house online portal has been developed by the DoHFW. All patients admitted in isolation facilities and COVID care centres are recorded electronically in the system. If a

referral to another facility is required, the patients records and case history can easily be accessed through the portal, which also provides inventory and facility management.

Further, a group of experts has been constituted in each district to ensure that patients are admitted/treated as per their medical requirements. They also initiate 'Reverse Referral' i.e. when a patient no longer requires ventilator care (in a Level III facility), but still needs monitoring, they can be shifted to a Level II facility for the duration of their hospital course.



### 6.1 Level I - COVID Care Centres (CCCs)



28,000+
beds
arranged in
COVID care
centres

COVID Care Centres (CCCs) came about as an enterprising solution to monitor patients with mild symptoms, who may not require extensive hospital care, which can thus be reserved for patients with more severe cases. CCCs also serve as isolation centres for those who are asymptomatic, but unable to isolate at home. The state has created CCCs as per the guidelines issued by MoHFW-- every centre is mapped to one or more COVID Health Centre (Level II) and at least one COVID Hospital, (Level III). Centres are established in hostels of meritorious schools, colleges, and universities, both government and private, across the state. They have been set up in phases as part of preparing for the worst-case scenario of a large breakout. The human resources to operate these centres are drawn from AYUSH doctors as per the training protocols developed by AIIMS.

### Multi-department efforts

Setting up COVID Care Centres, especially in such a short time during a nationwide lockdown, was no simple feat. A COVID Care Centre committee was set up to facilitate the task. The establishment of CCC's also involved the collaboration of multiple departments, each of whom contributed their expertise, resource and time. The Department of School Education has dedicated all government schools of Punjab for creation of CCCs.

It also placed ten meritorious schools at the disposal of deputy commissioners to use. These schools are situated in Amritsar, Bathinda, Ferozpur, Gurdaspur, Jalandhar, Ludhiana, Patiala, Mohali, Sangrur and Hoshiarpur districts. For setting up of CCCs and providing renovations, the Public Works Department worked closely with concerned district administrations.

The Department of Water Supply and Sanitation also pitched in, and prepared a plan to set up dedicated COVID Care units at separate locations in all the districts with the provision of isolation beds, for which the ground work is already in progress in many districts. As a part of the plan, one such CCC with fifty beds capacity has been set up at village Dhahan Kaleran of district SBS Nagar with the support of Department of Public Works (B&R) and doctors at Guru Nanak Charitable Hospital. Ventilation system along with the sodium hypochlorite solution tank at roof top was provided in the facility.

Medicine, equipment and other essential services are provided by the Department of Health. PPE kits, N-95 masks and triple-layer masks are maintained with a minimum of four days reserved stock. The state police are also positioned outside centres, providing security to the buildings.

#### Facilities at COVID Care Centres



Triage and registration desk. A volunteer dressed in full PPE attends to the patient. The patient's details are noted and the patient is then sent to the doctor for a medical examination.



Laundry, sanitation and cleaning, bio medical waste management were all organized via contractual services.



Swab collection kiosk to collect samples and transfer them to designated labs



All patients are served three meals and tea twice a day in their rooms. Menus have been finalized at the district level. The facility in-charge ensures nutritional value of food and hygiene standards. Disposable cutlery reduces risk of contamination.



An in-house general laboratory to collect blood samples for vital tests such as LFT, RFT as prescribed by the medical officer. These collection centres are linked to the testing facility in the nearest district hospital.



A public address system has been provided in each facility and the facility manager has been asked to play light music and devotional songs.



Multiple beds with proper distancing are placed in each room. Beds are equipped with mattress, bedsheet, pillow, pillow cover and cover sheet, jug, glass, plate, spoon, toiletry kit etc. Nurses and ward boys are available to help.



Daily exercise and yoga classes are organized to strengthen physical and mental well-being of all patients.



A well stocked pharmacy is maintained, with an attending pharmacist. The pharmacist is responsible for ensuring all required medicines are available.



A counsellor has been appointed to each CCC to talk to patients about fears, anxieties, COVID-related stigma etc.



Each CCC contains a 6 bedded emergency with oxygen beds. Each centre is also mapped with the nearest Level II / III healthcare facility to shift patient immediately if condition deteriorates.



**Security** within the premises was also arranged via contractual services



Full time dedicated ambulance/ vehicle for transporting patients as well as samples and is to be stationed at the CCC



Wi-fi has been arranged at every facility so patients are entertained and can easily connect with friends and family.

### 6.2 Level II - Dedicated COVID Health Centres (DCHCs)



5,000 beds converted to treat mild to moderate COVID-19 patients

Each Level II facility—i.e. Dedicated Covid Health Centre hospital—is fully equipped to care for all mild to moderate cases of COVID-19. Level II facilities have been selected from a diverse range of hospital buildings, and some even comprise of a select block in a hospital with separate entry, exit and zoning. Some examples of Level II facilities include:

Every DCHC is mapped to one or more Dedicated COVID Hospitals in case of emergency, and a dedicated Basic Life Support Ambulance (BLSA) equipped with sufficient oxygen support for safe transport remains on standby. Each facility has been provided with adequate number of medical staff, who have been trained to treat COVID-19 patients.



Medical Colleges



Private Hospitals



District Hospitals



Rehabilitation Centres



Subdistrict Hospitals



Mother and Child Hospitals



Community Health Centres



BBMB Hospitals



### 6.3 Level III - Dedicated COVID Hospitals (DCHs)



Dedicated COVID Hospitals offer comprehensive care for patients who are experiencing severe symptoms, or have severe co-morbidities. These facilities are either a full hospital or a separate block in a hospital with separate entry and exit. Each facility includes fully equipped ICUs, ventilators and beds with assured oxygen support. In Punjab, Level III facilities have been identified within three categories: government medical colleges, private medical colleges and private hospitals. Table 2 details the capacity of each, as of July 2020.

The infrastructural support of private hospitals will play an important role in providing quality healthcare to the citizens of Punjab, especially for those requiring more intensive care. Thus, it was constituted by way of MoU that cases referred to by Government shall be charged at CGHS Rates to the Government - not to the patient. This would ensure that even in the eventuality that government facilities are full, the state government would still be able to provide healthcare to citizens, without placing additional financial hardships.

Table 2: Level III facilities in Punjab

Facilities	No. COVID COVID Isolation Oxygen beds beds		Ventilators			
				COVID	Non- COVID	Total
Government medical colleges	3	1100	1045	113	46	159
Private medical colleges	6	1129	644	46	221	267
Private hospitals (survey)	212	454	454	90	490	580
Total Isolation/Oxygen beds and Ventilators		2683	2143	235	757	992

### 6.4 Private healthcare



From the outset, the Hon'ble Chief Minister emphasized that in the midst of a pandemic, all available resources must come together and join the fight. Thus the private sector was urged to embrace their public health responsibility and support state government initiatives.

Accordingly, the Punjab cabinet approved the Punjab Clinical Establishment (Registration and Regulation) Ordinance 2020 on 10<sup>th</sup> April 2020 to bring the state's private hospitals under the umbrella of the COVID-19 battle. The ordinance provides a mechanism for registration and regulation of clinical establishments in a professional manner, ensures compliance of minimum standards of facilities and services, as well as ensures transparency in the functioning of such establishments. This legislation is applicable to all clinical establishments of 50 beds and above.

The Directorate of Health Services has nominated a nodal officer for each private hospital for overseeing and monitoring the services and directing to remedy any defect and deficiency observed by the private hospital. A unified command was also created under the District COVID Management Group to ensure that all available health infrastructure, in both government and private, is jointly utilized in the most optimum manner.

Furthermore, an MoU was signed between Directorate of Health Services (DHS), DoHFW Punjab and 10 private hospitals in Ludhiana, Patiala, Sangrur, Tarn Taran, SAS Nagar and Pathankot districts for a period of one year. The services and facilities to be provided to COVID-19 patients are:

- Management of referred COVID-19 cases including emergency/ critical care
- Adequate technical manpower including specialists
- · Laboratory & radiology services
- · Drugs and consumables
- Utility services like housekeeping, laundry, diet and security services
- A nodal officer for single point co-ordination with DHS
- Necessary safety equipment for frontline workers In addition, daily reports on number of patients registered and being treated with treatment notes to DHS are required.

In many parts of the country, private hospitals charged patients exorbitantly for treatment, even insisting on a large deposit prior to admission and and levying additionally for PPE usage. In Punjab, the state government issued a price cap for COVID-19 treatment in July. The complete price list for various categories of hospital and levels of treatment, inclusive of PPE costs is publicly accesible.<sup>6</sup>

### 6.5 Improving infrastructure



The coronavirus pandemic has exposed the fragility of existing healthcare systems, and the urgent need for improvement. On the public infrastructure front, existing healthcare related projects in the state have been prioritized to be completed urgently, including minor works at district hospitals, and repairs of drug warehouses at sub-district hospitals initiated by the Punjab Health Systems Corporation (PHSC).

Some successes have already been achieved: medical gas pipeline has been deployed in all 22 district hospitals of the state, and the same is underway in the 40 sub-district hospitals of the state as well. Three new mother and child hospitals were inaugurated in July, in Tarntarn, Bham and Fatehgarh Churian. The hospitals

have been named in honor of Mai Daultan, who took care of Guru Nanak Dev, the founder of Sikhism, at the time of his birth. Each hospital is equipped with modern amenities and the goal of the project is to provide quality healthcare to expecting mothers and their children closer to their homes. The construction of 11 more such hospitals is already in progress, and within the year, Punjab will be home to a total of 37 Mai Daulatan MCH hospitals.

In addition, a special committee—the Upgradation of Health Sector Infrastructure Committee — was constituted to address infrastructural improvements in light of COVID-19. The work of this committee thus far has been summarized in Box 6.

### Box 6: Efforts of the Upgradation of Health Sector Infrastructure Committee

The Upgradation of Health Sector Infrastructure committee constituted in light of the pandemic has been working diligently to address gaps in the states' public health infrastructure. The committee, under the leadership of Mr. Vikas Partap, Principal Secretary (PWD), has been overseeing the work of various departments, organizing funds from the SRDF and reviewing progress on all fronts. The committee has also emphasized the urgent need to complete COVID-related projects, and have initiated construction of the same.

The committee has been involved in the upgradation of equipment, infrastructure and capacities of engagement in government medical colleges, district hospitals, sub-district hospitals, community health centres, drug warehouses and rehabilitation centres.

Five new COVID testing facilities also being constructed by the Public Works Department: the COVID Lab in Forensic Sector Laboratory (Mohali), VDRL Lab at Medical College (Patiala), Guru Angad Dev Veterinary and Animal Sciences University (GADVASU), Punjab Biotechnology Incubator (Mohali) and the Regional Disease Diagnostic Lab (RDDL) (North Zone Jalandhar)

### 6.6 Medical commodities

Securing and appropriately allocating essential COVID-19 commodities has continued to be one of the biggest challenges faced by all states. States are struggling with overburdened healthcare systems and supply shortages. Stock-outs of sanitizers, soaps, disinfectants are common and price gouging for off-the-shelf items is rampant. Access to diagnostics is limited and shortage of Personal Protective Equipment (PPE) are putting healthcare workers at undue risk. Given the current global and national outlook, the supply of commodities required to prevent additional spread and support healthcare delivery will continue to be strained. Without intervention, ethical concerns will grow, too, about widening inequality, as those countries, cities, and individuals who can afford to stock up on critical supplies.

Various essential materials were required by the Department of Health & Department of Medical Education & Research. For ensuring the availability of materials, a meeting was held on 21st March 2020 under the Chairpersonship of Additional Chief Secretary Industries & Commerce and as a consequence, a Purchase Committee was formed to identify and make necessary procurements, under the overall guidance of the Principal Secretary, Health & Family Welfare and Principal Secretary, Medical Education & Research. The following items were procured:



### 2.70 Lakh PPE kits and 4.40 Lakh N-95 Masks procured

Due to the shortage of PPE Kits and N-95 Masks, the Purchase committee decided to purchase the material at the market rate. This was done either through quotations on phone/e-mail or on spot purchase from available sources. The PPE kits and N95 masks proved difficult to source as per standard specifications. The major orders placed by the committee were not materialized due to nonsupply of the material by the suppliers. Two key constraints faced in the procurement of N-95 masks were (1) non-availability of the material in the market (2) inflation in the price due to lockdown and closure of manufacturing units. Despite various challenges, the committee was able to arrange 2,76,198 PPE Kits and 4,40,302 N95 Masks. Out of the stock available, 97,290 PPE Kits and 2,36,119 N95 Masks were consumed at ground level. It was ensured that there should not be any shortage of essential protective gear in the field.



### 89.18 Lakh Triple Layer Masks procured



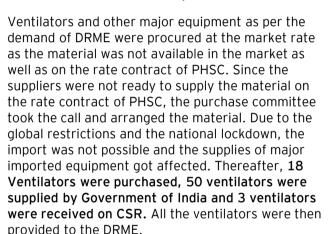
The Department of Industries & Commerce shared the list of manufacturing units in the State manufacturing Triple Layer Masks. All manufacturing units were contacted by the Purchase committee for seeking the rates and possible schedule of supply of the material to the department. Only one manufacturer agreed to supply 1 Lakh Triple Layer masks per day to the Department, as rest of the manufacturers quoted higher rates and also their inability to supply the material to the department immediately. Taking into consideration the urgent need of the public health Facilities including Medical Colleges, National Health Mission sourced the Triple Layer Mask from all the available sources at the market rate. 89,18,700 Triple Layer Masks were sourced by the Purchase Committee and were made available for use to the Department of Health, Medical Education and Police Department.

### 900 Infrared Thermometers procured



Thermometers were required for screening of the passengers at Airports, Railway Stations and also at Public Health Facilities. After a demand of 1500+ thermometers was observed, the Purchase Committee explored the market along with the GEM Portal for arranging the thermometers, but the same were not available. Orders were placed on GEM portal but were not materialized. The market was explored again and 400 Infrared Thermometers were purchased from a supplier. Further, further 500 more were purchased through short-term tender.

### 71 Ventilators and 5,895 Oximeters sourced and purchased



In addition to the Minor Equipment's, **5895 Pulse Oximeter** were also purchased and made available at the Public Health Facilities, COVID Care Centres and to the Police Department.

### 3 Lakh Viral Transportation Medium (VTM) Kits were purchased and 1 Lakh were sourced from Gol

VTM Kits were required for sample taking and for transportation of the samples to the Lab. The count of positive patients was increasing in the state henceforth, increasing the sampling VTM Kits was essential. Due to sudden increase of positive cases at Nawanshahar, the department had to do a large number of sampling in the containment zones earmarked in the districts, for ensuring such sampling, VTM Kits were even air lifted on urgent basis from Mumbai as the material was readily available only with that supplier.

3,00,860 VTM Kits were purchased and 1,00,100 VTM Kits were supplied by Government of India

and the same were issued to the districts and Medical Colleges. Out of the available stock 2,79,668 VTM Kits were already consumed and 1,21,292 are in stock

### Drugs and Consumables procured



There was a demand for various drugs and hospital consumables from the DRME, DHS and Police Department. Due to Lockdown and COVID-19 panic, the availability of Drugs & Hospital Consumables such as hand sanitizers, and hypochlorite solution was affected, and prices surged. The material was purchased by the committee at the market rate. Majorly, the following essential drugs and consumables for management of COVID were procured and sourced: -

Item	Quantity Purchased	Gol Supply	Total
Hydroxy Chloroquine	8,00,000	10,70,000	18,70,000
Tab Azithromycin	10,00,000	60,000	10,60,000
Hand Sanitizer	1,30,212	-	1,30,212
	Litre		Litre
Face Shield	58,200	-	58,200

### Gol and CSR supplies



From Gol, only **2,000 PPE Kits** and **46,170 N-95 Masks** were received till 27<sup>th</sup> April 2020. The supply was enhanced from the start of second week of May. A total of **1.4 Lakh** PPE Kits and **68,720** N-95 Masks were received from Government of India through HLL.

With the efforts of the Hon'ble Health Minister, Punjab and the Department of Industries & Commerce, the department of Health received the essential supplies through CSR also. The following items were received:

Item	Quantity supplied
Soap	3200 Cases
Triple Layer Masks	1,09,000
Coveralls	28,034
N95 Masks	43,632
Cotton Masks	10,000

### 7. Human capital



Past epidemics have demonstrated the critical need for a large pool of healthcare workers to be deployed at the frontline. As cases surge, the ranks of front-line health workers are stretched thin. Many will also become infected themselves, and thus be restricted in their ability to help. Others still will find themselves mentally and physically drained, requiring time to recuperate before they return to the battlefield. Those on the frontlines include doctors, nurses, lab technicians ward-boys, as well as administrators, support staff, security gaurds and more.

The state government grasped the importance of sufficient medical personnel in order to successfully treat patients early on. On 16<sup>th</sup> March, the Punjab Cabinet gave ex-post facto approval to the Chief Minister's decision on extending the services of the doctors and paramedical staff working with the Government of Punjab in Health & Family Welfare Department till 30<sup>th</sup> September, 2020.

To support existing staff, volunteers were solicited. Over 531 Doctors, 4680 Nurses, 2056 pharmacist and 1648 Lab Technicians came forward and registered themselves as volunteers to work in Government hospitals. In addition, 8201 ward attendants and 243 Radiographers also registered as volunteers. This overwhelming response helped augment the capacity of government hospitals significantly.

In June, the Cabinet, let by the Hon'ble Chief Minister also accorded approval to fill 3954 existing vacant regular posts in Health and 291 posts in the Medical Education Department. The Hon'ble Chief Minister also sanctioned 300 ad-hoc posts, 100 in each in the three government run medical colleges to handle critical patients. Based on the suggestions of Dr. K.K. Talwar, Level III facilities are being filled with experienced doctors, senior residents and anaesthesiologists to treat COVID-19 patients. Junior faculty are also sent to PGI and AIIMS to gain hands-on experience of working in a COVID-ICU.

Ensuring adequate medical capacity also meant addressing the needs of existing health care workers. To this end, during the lockdown, doctors and other health staff working in public hospitals, including those working in private hospitals, nursing homes and diagnostic labs, were allowed to move freely without curfew passes on the basis of their photo identity cards issued by Medical Council of India (MCI) and Indian Medical Association (IMA). Insurance sums were assured in case of death, and frontline workers were lauded for their hard work and courage. Such measures helped motivate workers to continue even in the face of adversity.

### 7.1 Medical Training



2,80,813

frontline workers trained in capacity building in IGOT via the DIKSHA app

For the past century, we have enjoyed the luxury of vaccines to control serious epidemic infections and cannot recall a public health emergency of this scale in our collective living memories. The medical community faces an especially steep learning curve at the forefront of the COVID-19 battle. Handling the crisis has called for new scientific methods, making resourceful use of the information available, sharing widely via digital means and most of all, being open to learning.

Keeping in mind the urgent need for more medical professionals on the frontlines, the Department of Medical Education and Research continued to conduct examinations, while following all guidelines and necessary precautions.

In addition, various trainings were organized by the Government of Punjab for medical personnel, helping them to be better equipped to tackle the challenges encountered while treating COVID-19 patients. The following sections describes these trainings further.

### In-person trainings

Five participants from the state attended the national Training of Trainers (TOT) on 6<sup>th</sup> March 2020 in New Delhi. The first state level training was conducted on 9<sup>th</sup> March 2020, attended by 110 participants from all over Punjab. The training was imparted by speakers from medical colleges, WHO experts and state nodal officers. Participants were district epidemiologists, medical specialists, medical officers, district program managers and district mass media officers from each district.

Training for other departments such as Police, Jail, Social Security, Local Bodies, Agriculture was conducted on 12<sup>th</sup> March 2020. A total of 227 participants were trained, who then further disseminated information and learnings to their respective staff within departments.

These state master trainers further imparted training at district level, sub-divisional level, community health centre level and block level. At district level, 6412 participants (177 senior medical officers, 843 specialist doctors, and paramedical staff) were trained. At block Level, 23797 participants (4242 nurses, 833 ASHA facilitators and 18722 ASHAs) were trained in all the districts.

#### Topics covered:

- Basics of COVID-19
- Bio-Medical Waste Management
- Stress Management in COVID-19
- Quarantine & Isolation
- Orientation of trainers for mass awareness on COVID-19
- Community surveillance
- Lab surveillance
- Clinical care management
- Infection prevention and control
- Risk containment
- Donning and Doffing and PPE (Punjab's initiative)



### I-GOT training

As recommended by the Government of India, officials required training about the novel coronavirus, for which the central government has created "Integrated Government Online Training (I-GOT)" training modules on the DIKSHA platform, initiated by the MHRD.

It was suggested that health professionals, civil society groups such as NCC volunteers and Nehru Yuva Kendra volunteers etc. may be trained on basic COVID modules with a view to enhance their capacity to fight against COVID-19. The Department of Personnel issued instructions to all the Departments to ensure officials undergo training on the iGOT platform. Class-IV employees need to be provided iGOT training modules in Punjabi, for which School Education Department was asked to translate iGOT basic COVID training module through SCERT. Punjab has the second highest number of frontline workers trained via the DIKSHA app, with over 2,80,813 having completed the course.

It has been further intimated by the Government of India that due to huge demand for iGOT training, the registration of the individuals on the on-line portal have been stopped, however, the individuals can undergo training modules without registering on the app.

### Online trainings

It was soon understood that the safest method to conduct trainings was through digital means. A committee was constituted under the chairmanship of Director, National Health Mission which is working in collaboration with ECHO India (a not-for-profit organization which provides healthcare training) to deliver medical training in the state.

The first state level online trainings were conducted using Zoom, from 3<sup>rd</sup> April 2020 to 8<sup>th</sup> April 2020. A total of 6812 participants (dental doctors, AYUSH doctors, resident medical officers, volunteer doctors, volunteer paramedics) attended the training. Subsequent state level online trainings were conducted on similar lines: 3 in April, 3 in May and 2 in June. A total of 8173 participants (medical officers, doctors, paramedics, NUHM staff, nurses, pharmacists, lab technicians, house keeping and sanitation staff) attended these trainings.

### Training under Operation Fateh

Under Operation Fateh, training sessions were organized for medical specialists and anaesthetists looking after mild to severe COVID-19 patients. These trainings were conducted under the chairmanship of Dr. K.K. Talwar, experts from AIIMS New Delhi, PGIMER Chandigarh, CMC and DMC Ludhiana. A total of 25 sessions from 27<sup>th</sup> March to 27<sup>th</sup> June 2020 were held on every Thursday and Saturday for online training of 2905 medical professionals involved in COVID care services. Research projects such as the use of plasma and steroids have also been initiated on this platform. Experts from USA, UK, Italy, AIIMS and PGIMER regularly joined these sessions and shared their experiences in managing severe cases.

#### Knowledge sharing partnerships

The government of Punjab has elicited the expertise of various pioneering institutes across the country to support state wide efforts in combatting COVID-19. A few are highlighted below.

- IIT Chennai to help identify high risk areas based on the tracking of the movement of COVID positive patients using mobile data.
- **ISB Mohali** to use data analysis and modelling to estimate health infrastructure requirement.
- Private experts are offering pro bono support of IT initiatives to GR team by IIM,C alumni and by others for analysis and forecasting.

### 7.2 Insurance

Healthcare workers all over the world have been fighting on the frontlines to treat COVID-19 patients. Apart from the physical risk of contracting the virus, there is a great deal of additional stress on healthcare workers who endure long working hours in uncomfortable gear, to protect the lives of others. Many are also forced to isolate from their families in order to keep them safe.

Recognizing their tireless efforts, the central and state governments sought to provide robust insurance. The Gol, with New India Assurance Company as the insurer, announced an INR 50 lakh insurance cover w.e.f 30<sup>th</sup> March, 2020 (applicable for a period of 180 days) for frontline health workers involved in managing the COVID-19 outbreak, as one of the welfare measures under the Pradhan Mantri Garib Kalyan package. Any healthcare professional who meets with an accident, death, from contact with a COVID-19 patient, would be compensated with an amount of INR 50 lakh under this scheme. Those working in all government health centres, wellness centres and central as well as state govt. are covered.

Eligible beneficiaries include:

- Employees of Government Facilities who may have to be in direct contact and care of COVID-19 patients: health care facilities of Central/State/UT Governments/ Urban Local Bodies and autonomous/PSU hospitals of Central/State/UT Government, AIIMSs, INIs and hospitals of Central Ministries.
- 2. Employees of Private healthcare Institution involved in COVID-19 management.
- 3. Private person engaged by the Health Care Institutions / Organizations (both public and private) through an Agency.
- 4. Community Health Workers: ASHAs and ASHA Facilitators
- Volunteers: Volunteer drafted for COVID 19 related responsibilities by the Government Officials authorized by the Central/State/UT Government.

In addition to healthcare workers, many others are also placed on the frontline in the battle against COVID-19. In line with the central government, Punjab government on 4<sup>th</sup> April, 2020 announced special health insurance cover of INR 50 lakhs each for the police personnel and sanitation workers in the frontline of the battle against COVID-19.



In order to ensure safety and security of its staff deployed on procurement operations across the state, the PUNSUP has committed to providing a life insurance cover of INR 50 lakh to all its employees involved in the procurement operations. Masks, gloves, sanitizers and medical insurance worth INR 2 lakh are also to be provided.

The Cooperation Department will provide an insurance cover of Rs. 25 lakh to all its officers/employees on the frontline in the war against COVID-19. This insurance will cover all regular, contractual and outsourced employees who are currently working day and night to provide essential services to the people during the lockdown imposed in view of the COVID-19 crisis. 14905 Officers/Employees of five Cooperatives institutions—Sugarfed, Milkfed, Markfed, Punjab State Cooperative Bank and Punjab State Cooperative Agricultural Development Bank—are covered and cooperative institutes will pay insurance premium of INR 2.95 crore.

A large number of needy persons suffered during the lockdown due to shortage of food. Many civil society members are making food packets, along with dry ration and other items to distribute to those in need. Sewadars are also preparing langar and distributing it. With the efforts of Mr Sukhwinder Singh Bindra, Chairman, Punjab Youth Development Board, free medical insurance of INR 25 lakh has been arranged for Sewadars performing langar sewa.

### 8. Treatment



Coronaviruses are a family of viruses that can cause illnesses such as the common cold, severe acute respiratory syndrome (SARS) and Middle East respiratory syndrome (MERS). COVID-19 is an infection transmitted via inhalation or direct contact of infected people's droplets. It has an incubation period ranging from 2-14 days.

The clinical presentation is generally that of a respiratory infection with a symptom severity ranging from a mild, common cold-like illness, to a severe viral pneumonia leading to acute respiratory distress syndrome that can be potentially fatal. While some patients are asymptomatic, characteristic symptoms include fever, cough, and *dyspnea*. Complications of severe disease include, but are not limited to, multiorgan failure, septic shock, and blood clots.

Certain co-morbidities have been linked to worsening outcomes including, but not limited to heart disease, chronic kidney disease, and increased BMI. In addition, advanced age and male sex are also risk factors. Till date, there is no specific antiviral treatment or vaccine available for treatment of SARS-CoV-2 infection.

Treating COVID-19 patients has been a challenging task for medical professionals in the absence of a definitive treatment plan. They also face the risk of transmission, and the discomfort of enduring long hours in PPE. Despite these hurdles, they have committed themselves to providing the best possible care to patients—treating the illness as well keeping spirits high.

Moreover, there are weekly, detailed case presentations and discussion by experts across the state. This ensures that each individual's treatment is monitored and reviewed at the senior most level. Further, a Mortality Audit Committee has also been constituted to audit fatalities due to COVID and to examine if any death could have been prevented. To help document best practices, the state government has brought out a *Punjab COVID-19 Clinical Management Manual* - put together by a Committee of renowned medical experts headed by Dr. KK Talwar - as a single point of reference for all healthcare providers for clinical management of COVID patients. It is intended to function as a bridge between national protocols and the state's requirements.

Many COVID positive patients will feel only mild symptoms, and some feel nothing at all. For these patients, home quarantining or moving to a Level I facility is a feasible option. Patients with more moderate or severe symptoms, or those with pre-existing conditions will require more concentrated care. The following section summarizes some of the major treatment strategies being employed in Punjab, investigate therapies being employed, and the importance of handling the bodies of those deceased due to COVID-19, in a manner that is both respectful and safe.

### 8.1 Best practices

Currently, there are no approved treatments for COVID-19. The management plan is supportive care with supplemental oxygen and mechanical ventilation. Multiple trials are being conduct to assess the efficacy of various treatments including regimens containing Remdesivir, Lopinavir/Ritonavir, Lopinavir/Ritonavir with interferon beta, and hydroxychloroquine. While many of these trials are still ongoing and definite results awaited, certain best practices have been established by doctors in Punjab.

#### Early supportive therapy and monitoring

Early supplemental oxygen therapy can make a big difference to patient outcomes. All areas where patients with severe COVID are cared for should be equipped with pulse oximeters, functioning oxygen systems and disposable, single- use, oxygen-delivering interfaces (nasal cannula, simple face mask, and mask with reservoir bag). It is also important to use contact precautions when handling contaminated oxygen interfaces of patients with COVID - 19.7

#### Reducing mechanical ventilation

Many patients have required mechanical ventilation for an extended period of time. While mechanical ventilation can be a lifesaver for some, it can also have side effects. When respiratory distress and/or hypoxemia of the patient cannot be alleviated after receiving standard oxygen therapy, high - flow nasal cannula oxygen therapy or non - invasive ventilation can be considered. At GMC Amritsar, mechanical ventilation was avoided for at least two patients with severe to moderate symptoms—a 67 year old male with hypertension and an obese 27 year old male. This was achieved through the technique of rotation and early self-proning.

### 8.2 Investigative therapies

With no current specific treatment for COVID-19, patient care has been especially difficult. While many investigative therapies have been proposed as potentially life-saving, their widespread and safe use depends on longer clinical trials. Yet, some investigative therapies have shown promising signs, and are increasingly being used to treat patients in India. Two particular therapies that gained significant attention during the first phase of the pandemic have been elaborated upon below.

#### Plasma therapy

Convalescent plasma therapy (CPT) is akin to passive immunisation and has shown considerable success in improving patient outcomes. The basic principle of plasma therapy is that the plasma of a patient who has recovered from SARS-CoV2 contain highly specific antibodies that can have the ability to fight against the virus. When the antibodies obtained from recovered patients are transfused into an active patient, they will start to fight the infection.

GGSMC, Faridkot has become one of the pioneer institutes in the country to initiate plasma therapy, as part of the national clinical trial under the ICMR. Recovered patients are able to donate 14 days after testing negative. The state government has encouraged recovered patients to donate plasma and help others in need.

In July, a 'plasma bank' was inaugurated at Rajindra Hospital, Patiala, the second of its kind in the country. The bank will serve as a central platform in the state, collecting donations from recovered COVID-19 patients which in turn, can be used to treat future patients.





Live Shabad Kirtan was conducted at Civil Hospital, Batala to lift the spirits of patients

#### Use of hydrochloroguine

The drug has been a popular suggestion in the fight against COVID-19. Chloroguine (CQ) is an amine acidotropic form of quinine and known for decades as a front-line drug prescribed for the treatment and prophylaxis of malaria worldwide. Hydrochloroguinine has demonstrated in vitro activity against COVID-19. and some, small studies (with limitations) have also shown improvement in patient outcomes. As such, the evidence base behind its use remains limited as with other drugs and should only be used after shared decision making with the patients while awaiting the results of ongoing studies As per the MoHFW guidelines, the drug, like all antivirals, should be used as early in the disease course as possible to achieve any meaningful effects and should be avoided in patients with severe disease. An ECG should ideally be done before prescribing the drug to measure QTc interval (and HCQ avoided if QTc is >500 ms).8

## 8.3 Psychological support

Many patients reported feeling distressed having contracted a strange, unknown disease, and worried about the outcome. This was compounded by the loneliness of the isolation ward, where family members were not allowed to visit and even healthcare professionals could only come for short periods of time, often unrecognizable in PPE gear.

Additionally, many patients felt physically fit but their test results repeatedly showed up as positive, compelling them to stay longer in the hospital, and weakening their spirits. Thus, managing the fears and anxieties of patients, and adopting a holistic approach to treatment became an important component of medical plans. Counselling services organized by the state government made a big difference. Small,

meaningful gestures helped as well. Many hospitals installed a music system and played *Gurbani* for patients to hear. Some healthcare workers went above and beyond their call of duty, performing *gidda* to cheer up patients.

Paediatric patients were especially challenging to manage, as standard protocol demands isolation of the infected patient. In such cases, special considerations were made wherever possible. For instance, in GMC Patiala, a three-year old girl tested positive, while her mother tested negative. Her mother was allowed to stay with her, and was provided with extensive PPE gear to make sure she didn't get infected. Fortunately, the efforts bore fruitshe didn't test positive and the child was discharged in satisfactory condition.

## 8.4 Preventing infection

Hospitals run a high risk of becoming hotspots of COVID-19. The current threat of COVID-19 not only disproportionately affects healthcare workers on the frontline, but also increases exposure to their family members and the wider community.

For this reason, essential protocols, including proper donning and doffing of PPE, limiting exposure to infected patients and enforcing a strict mask policy in all wings of the hospital must be diligently followed. Though the virus can survive on surfaces, it is easily inactivated by chemical disinfectants. Thus, frequent and thorough sanitization is pivotal to reducing risk of infection The SOPs for disinfection of facilities and proper disposal of biomedical waste in the state have been made accessible in the Annexure.



### Box 7: Medical helplines

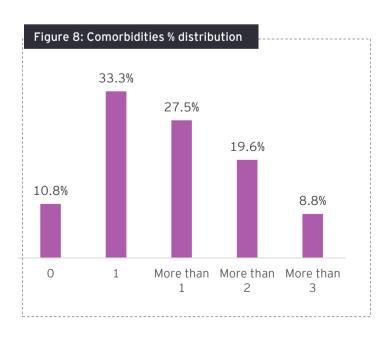
Dial 104- Medical Health Helpline is a free medical helpline service providing medical assistance for several minor physiological illnesses, ailments, and mental distresses. Along with it, the service also provides directory information, details on health schemes, a grievance redressal mechanism, and more. It is functional 24x7, and is operated out of Kharar since 2014. In the wake of the pandemic, the helpline became the first point of contact for suspected patients to alert authorities.

The Government of Punjab also launched a special helpline 1800 180 4104 for citizens to connect with a network of senior doctors and get medical advice on COVID-19 and other related concerns. A panel of expert doctors have been duly trained about the platform, its protocol and functionalities. The helpline has been conceptualized by the Department of Governance Reforms & Public Grievances and was implemented with the State COVID19 Control Room, Government of Punjab (SCCR) and the India Medical Association (IMA), Punjab State Branch.

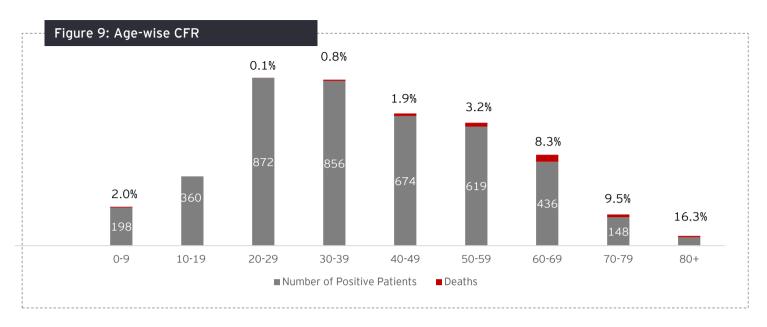
#### 8.6 Death due to COVID-19

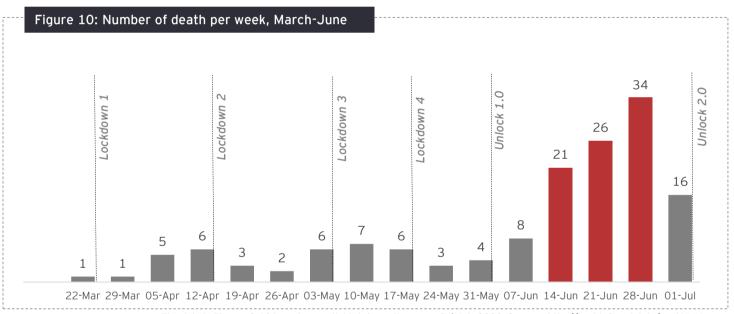
As shown in Figure 8, many patients who have passed away from Punjab suffered from at least one preexisting medical condition, i.e. co-morbidity, that increased their fatality risk. This finding was corroborated by the expert committee constituted by the Hon'ble CM to conduct an audit of COVID-19 occurring in Punjab, headed by Dr. K.K Talwar.

One other factor contributing to mortality, as per the findings of the committee, was that patients were often reporting late to government health facilities, at which point their health had already deteriorated to a severe condition. With this in mind, medical professionals emphasized the importance of seeking timely medical help, and to not shy away from the hospital due to stigma attached to being diagnosed with COVID-19.9



#### 8.6 Fatalities due to COVID-19





 $The \ data \ in \ Figures \ 8-10 \ based \ on \ available \ information \ as \ on \ 2^{nd} \ July \ 2020. \ Source- \ http://covid19punjab.in/ \ and \ NHM.$ 

Deaths amidst a pandemic bring unique challenges. In some countries, cremation grounds have been overwhelmed by the exponential increase in number of deaths, and last rites are often hastily performed due to limited resources in time. In Punjab, this has fortunately not been the case so far.

However, due to the fear of COVID-19 instilled in people's minds, there have been many instances of families refusing to accept the bodies. In other cases, village members have raised concerns about families conducting last rites and potentially contracting the virus. This presented a difficult situation for hospital authorities, district administration, and most of all, bereaved family members.

The Government of India issued guidelines to be followed in the case of a COVID death. The guidelines have been included in the Annexure.

Additional guidelines were also issued regarding the disposal of unclaimed bodies, as outlined below:

- If relatives are present and willing to conduct the last rites, the district administration should provide whatever support necessary
- If relatives are present but not willing to conduct the last rites, the district administration should conduct the last rites
- If a body remains unclaimed after 48 hours of the relatives being informed, the body should be declared unclaimed under the Epidemic Disease Act 1897 and district administration should conduct the last rites as per the religious belief known to the district administration.

In many parts of Punjab, the district administration attended the last rites of COVID patients as a means of instilling confidence within the community.

## Box 8: Combatting stigmatization

When an infectious disease outbreak becomes a pandemic, people are bound to feel scared and anxious. The stigma surrounding COVID-19 stems from the fact that it is a new disease, with many aspects still unknown. It is an instinctual response to feel fearful of the unknown and want to protect one's self. Unfortunately, this has also led to unpleasant experiences for many associated with COVID-19–frontline workers, infected patients and their families, and even those who might exhibit similar symptoms, such as a cough or cold.

In Punjab, many families faced ostracization within their communities. Initially, NRI's were treated with a lot of suspicion, as it was believed the virus came from abroad. As highlighted in the previous section, the death of a loved one became all the more difficult, as people were scared of contracting the virus during the last rites. Some families were also nervous when patients were discharged, despite them having tested negative. This widespread anxiety can cause further problems—people are often reluctant to seek care until it is too late, because of fear of being stigmatized.

Some measures initiated by the state government to help change the narrative around COVID-19 into one that is precautious yet positive are:

- Social media campaigns targeted at busting myths about COVID transmission and more.
- IEC efforts to portray frontline workers and medical professionals as warriors of the community, deserving praise and recognition for their hard work.
- Recovered patients to serve as ambassadors, sharing their experiences with the broader public and reiterating there is nothing to fear, and that patients are in good hands with the doctors.

Further, COVID-19 patients were extensively counselled during their hospital/quarantine stay, and even after. This provided them with a means of sharing their feelings, anxieties and fears to a professional expert. Round the clock psychological counselling has also been made available to the wider public free of cost by the state government, as declining mental health is another challenge exacerbated by the circumstances of the pandemic.



#### Lok Sanjhdari Project:

Additionally, in Khanna municipality, Ludhiana, a unique community ownership model was piloted: the *Lok Sanjhdari* project. The project was envisioned as means to empower the people, by training community members to identity COVID-19 symptoms, aid testing and surveillance efforts as well as help monitor quarantined cases.

Carried out with the support of Department of Community Medicine and CMC Ludhiana, the objective of this pilot project was to encourage community members to play an active role in the battle against COVID-19, thereby reducing stigmatization faced by frontline workers and those diagnosed with disease. The success of the pilot project led to many other towns and cities across the state adopting the Lok Sanjhdari model.

#### SPECIAL SECTION

## Government Medical Colleges

In Punjab, the three Government Medical Colleges – Amritsar, Patiala and Faridkot – are also home to some of the pioneering hospitals in the state. These institutions form the backbone of the state's healthcare services, and have been played an particularly pivotal role during the pandemic.

GMC Amritsar was the first lab in the state to obtain ICMR approval for RT-PCR testing on 7<sup>th</sup> March, 2020. The first donation of convalescent plasma was received at GGSC Faridkot on 28<sup>th</sup> May, and successfully transfused to the patient. Many more pioneering moments of the pandemic in Punjab can be credited to the GMC's—the following section sheds light on some of their efforts to tackle COVID-19 from March-June 2020.

#### Initial steps

Community Medicine Department experts from 3 GMC's were designated to all districts. Designated teams also visited all government facilities of Level I and Level II at districts and conducted an assessment and guided district authorities. Specialist teams also visited districts and provided trainings for the initial sample collections conducted in the state.

Further support was also provided to the District Health Services by the MER department, including in the form of supporting community tracing efforts, supplying three doctors for each district, appointing nodal faculty per district, and providing overall guidance on testing and treatment. In addition, a tertiary care survey was also conducted—the first ever for the whole state, wherein 218 private hospitals were assessed on 76 parameters.

A flu corner for triage of patients with COVID-19 and related symptoms was started in the medical emergency in the last week of March. These now have facilities for sampling also by way of enclosed cubicles for enhanced safety. Initially the sanitization tunnels were locally installed at some places but as these were not found to be suitable for human health, and were discontinued.

#### Testing

Testing started in early March in existing VRDL Lab of GMC Patiala and Amritsar with capacity of 40 tests per day each. Within a month, a VRDL facility was



Quality checks at a flu corner set up in Sangrur

operationalized at GGSMC Faridkot (See Box 1), with initial 40 tests per day capacity. With the purchase of automated RNA extraction machines, testing capacity was increased ten-fold, surpassing labs across the region.

PGIMER Chandigarh is the mentor institute for all three labs, and it supplies the regents required, with the support of NHM Punjab and the department of MER. An expert group for testing has been constituted under the Vice-Chancellor of Baba Farid University of Health Services, with BFUHS as the nodal agency for procurement of machines, kits and selection of manpower required to operate the labs.

The institutes formulated a stringent, internal quality assurance audit and external quality assurance programs. Teams from different departments of the GMCs were posted to conducted random checks and oversee the results. Random samples to PGIMER Chandigarh for external quality check of sampling.



External audit team visit from PGIMER Chandigarh visits GMC Patiala

#### Training

All faculty/ medical students and paramedical were trained extensively to treat COVID-19 patients. Online trainings were conducted for the staff via the IGOT Diksha app. Experts from across the world have hosted trainings, under the guidance of Dr. K K Talwar.

Medical students continued to sit for their exams, following strict social distancing protocols. This was discussed at the highest level of administration, and it was decided that as medical students are an integral resource in the current situation, their training must not be disrupted.

#### Infrastructure

Initially starting with six beds and ventilators at GMC Patiala and four beds and ventilators at GMC Amritsar; capacity has been ramped up significantly, as demonstrated below:

	GMC Amritsar	GMC Patiala	GGSC Faridkot
Beds with oxygen	300	600	145
ICU beds	92	88	21
COVID ventilators	38	54	21

Faridkot Medical College is also running Jalalabad District Hospital, with additional 100 beds. Adequate quarantine facilities have been provided for health care workers with a clear-cut protocol for entry and exit, and CCTV monitoring.

#### **Treatment**

Treatment is monitored and managed at the senior most level with case discussion intra departmental and state level apart from discussions with experts with AIIMS, PGIMER as well as abroad. Expert group discussions are conducted every Saturday, with detailed case presentation and discussion by experts. Daily three rounds are conducted by senior faculty and each and every case is adequately discussed and proper treatment is initiated. Each patient is closely monitored, all treatments are charted and a record is maintained online as per protocol.

In addition, emergency surgeries and routine OPD went on. The gynecology department continued their routine hectic work and safely delivered many babies during this time.



A patient receives care from doctors dressed in PPE kits

#### Plasma Therapy

Recovered COVID patients are encouraged to donate their plasma to help others at all three GMCs. The first plasma treatment in the state was initiated at GGSC Faridkot, and the patient recovered successfully.



A recovered patient donates plasma at GGSC, Faridkot

#### Extra care

Every effort was made to make patients as comfortable as possible. Counselling of patients was conducted by experts from psychiatry department. Daily *gurbani* was played, and entertainment was provided. In addition, a special corner was created for kids, with games and toys. Occasions like Mothers Day were celebrated in the hospital, to boost morale and keep spirits high. Special permissions were taken, and appropriate facilities were provided for admitted patients who had to take certain exams. Nutritious and tasty food was also ensured, and wherever possible, any special requests were accommodated. Sanitization was conducted regularly. In cases where family members were reluctant to handle the dead body, staff conducted the last rites.



Mother and son play carrom together at GMC Patiala

#### 9. Non COVID healthcare



Around the world, health systems are burdened by the increasing demand for care of people with COVID-19—a challenge compounded by fear, stigma and limitations on movement that influence health care delivery systems. When healthcare systems are overworked and people fail to access care, both direct mortality from the outbreak itself as well as indirect mortality, stemming from preventable and treatable conditions, rise. Thus, maintaining a healthcare system that is well organized and equipped to continue regular healthcare services with as little disruption is an integral aspect of any healthcare system's response to the pandemic.

Further, maintaining the public's trust in the capacity of the health system to safely meet essential needs as well as control infection risk is also key. When patients feel scared, they are also more likely to delay accessing care, and risk advanced disease progression. Effective communication and community engagement plays an important role here, as does harnessing technology towards remote consultations. Once initial lockdown restrictions lift, healthcare facilities will likely become inundated with patients requiring care for

At the same time, establishing safe and effective patient flow (including screening for COVID-19, triage and targeted referral) remains critical at all levels.

As per guidance from the WHO on essential healthcare services, categories of people that should be prioritized for continuation of services during the acute phase of the COVID-19 pandemic include<sup>10</sup>:

- essential prevention and treatment services for communicable diseases, including immunizations;
- services related to reproductive health, including during pregnancy and childbirth;
- core services for vulnerable populations, such as infants and older adults;
- provision of medications, supplies and support from health care workers for the ongoing management of chronic diseases, including mental health conditions;
- critical facility-based therapies;
- management of emergency health conditions and common acute presentations that require timesensitive intervention; and
- auxiliary services, such as basic diagnostic imaging, laboratory and blood bank services.

The following section highlights major adaptions made by the Government of Punjab to ensure regular delivery of healthcare services, particularly focused on the high-priority categories mentioned above.

#### 9.1 Telemedicine

During the lockdown, the regular footfall at hospital OPDs reduced drastically due to the looming danger of transmission of COVID-19. To this end, the e-Sanieevani Online OPD has been developed by Centre for Development of Advanced Computing (C-DAC) in Mohali. It is Government of India's flagship telemedicine technology, which has been rolled out in twelve states around the country. The service is completely free, and doctors are empanelled by the state governments. Patients require an electronic device with webcam and mic facilities, and minimum internet speed of 2 Mbps. To provide support, a 'Telemedicine Hub' has been established at Civil Hospital, Mohali with 4 Medical officers and 1 Telemedicine Executive. Telemedicine services have been initiated in 300 Health and Wellness centres across the state.

e-Sanjeevani OPD steps

The salient features of e-Sanjeevani OPD include:

- Patient registration, token generation and queue management
- Audio-Video consultation with a doctor, eprescription and SMS/Email notifications
- Free services by state's doctors and fully configurable
- Available in the COVA Puniab mobile application

Punjab commenced e-Sanjeevani OPD services on 25<sup>th</sup> April 2020. Initially, general OPD Services were offered, utilizing the services of Medicine/ Chest & TB specialists from the District Telemedicine Nodes. Gynaecology OPD services were added from 1<sup>st</sup> June. Around 600 doctors and staff nurses working in labour room and special new-born care units trained online. From 1<sup>st</sup> July 2020, to allow even more individuals to avail the benefit of teleconsultations, the timings have been increased for gynaecology and general OPD services by one extra hour.



Registration via OTP and token generation. Upload health records, if any. Wait for SMS notification and log in with patient ID. Enter waiting room. Initiate video call when "CALL NOW" button is activated. Consultation begins. Eprescription is written if needed



# 955

total consultations

# 118+ hours

total consultation duration

## 56 seconds

average patient wait time

as of 14th July 2020

### 9.2 Regular healthcare services



49,000+

patients treated during lockdown under Sarbat Sehat Bima Yojana

as of 25th May 2020

#### Blood donation camps

As per the WHO, reduction of blood donor numbers before, during and after a COVID-19 outbreak is a major risk and should be considered early to enable preparedness and response. This is particularly critical for components with short shelf life, such as platelets, where a constant supply is needed for patients dependent on platelet transfusions. Patients recovering from essential surgeries, and those with certain chronic conditions such as haemophilia also require timely transfusions to survive.

Blood donations declined during the lockdown period, as well as afterwards. Routine blood donation camps were postponed, and people were unwilling to donate due to fear of being infected during donation. Thus, a communication strategy to help mitigate donor anxieties and fears, which may stem from lack of awareness, was very important. As part of the implementation of "Mission Fateh" campaign across the state, blood donation camps were organized by the DoHFW in all districts to fulfil the shortage of blood units in government blood banks and hospitals. Special passes were issued by blood banks for unhindered movement of blood donors and NGOs in weekends during the lockdown.

The Punjab State Blood Transfusion Council also launched a month- long campaign to celebrate World Blood Donor day across the state, beginning on  $14^{\rm th}$  June 2020. Using the blood mobile bus as well as organizing smaller blood donation camps helped to ensure adequate blood supplies in health facilities.

#### Sarbat Sehat Bima Yojna

Despite the lockdown, the state government made every effort to ensure regular healthcare services were disrupted as little as possible. In the first two months alone, over 49,189 patients were treated under *Sarbat Sehat Bima Yojna*—the flagship health insurance scheme of Punjab.

As many as 726 patients underwent heart surgery, 19,867 patients had dialysis treatment, 1512 received cancer treatment and 996 elderly patients had joint replacement surgery, as of 25<sup>th</sup> May 2020. These surgeries were conducted in compliance with all COVID-19 protocols, including testing and chest CT scan before admission.

#### Free treatment for Haemophilia patients

Various other initiatives continued to be rolled out by the DoHFW even amidst the COVID-19 pandemic. For instance, the state government has initiated free haemophilia treatment in 18 districts. While three care centres have been set up in the government medical colleges, an additional 15 have been installed in district hospitals. The expenses of the treatment (which can range from Rs. 18-80 lakhs annually) will now be borne entirely by the state government. The programme has been set up with the guidance and training of doctors from PGIMER Chandigarh.

#### 9.3 Non communicable diseases



Non-communicable diseases (NCDs) are diseases that are not infectious in nature, but rather, caused by a combination of genetic, physiological, environmental and behavioural factors. The main types of NCDs are cardiovascular (eg: heart attacks and stroke), cancers, chronic respiratory diseases (such as chronic obstructive pulmonary disease and asthma) and diabetes. In India, NCD's account for nearly 63% of the country's total annual mortality. Many of these deaths are premature (age 30-70 years), and occur during the most productive years of life. 11

COVID-19 can worsen NCD outcomes in multiple ways. Evidence indicates a higher susceptibility to COVID-19 infection as well as higher case fatality rates. Moreover, delays in diagnosis can result in more advanced disease stages. Behavioural risk factors, such as physical inactivity and increased use of harmful substances also tend to increase during lockdowns.

In Punjab, 12,64,713 individuals were screened in 2019-20 under the Non-Communicable Diseases Screening Program, out of which 1,94,528 persons were diagnosed with hypertension and put on treatment by the Health Department. Many Punjabis also grapple with obesity, diabetes, cancer and other diseases.

In light of COVID-19, all civil surgeons in Punjab were directed to ensure the supply of medicines to patients with co-morbidities such as diabetes and hypertension. The state government provided these medicines free of cost to patients requiring them. Frontline workers and volunteers made the extra effort to deliver these medicines at people's doorsteps, thereby reducing their exposure to COVID-19 further. Medical teams at the PHC level were additionally instructed to promote healthier lifestyle choices such as eating a low-salt diet and practicing yoga.

## Box 9: Dialysis treatment of a COVID patient at Rajindra Hospital, Patiala

Treating patients affected by both NCD's and COVID-19 can be challenging. In particular, side-effects and drug interactions should be closely monitored, and patients should be seen as especially vulnerable to nosocomial infection risk and additional complications. As the pandemic extends on, the likelihood of patients with existing co-morbidities presenting with COVID-19 is also increased. Doctors should prepare for such cases to the best of their ability.

The treatment of a COVID-19 patient requiring dialysis at Rajindra Hospital, Patiala is one such successful example.

A 57 year old female patient was received in the ICU in critical condition—an existing case of carcinoma cervix and chronic kidney disease. She was immediately placed on oxygen support and other medications, and stabilized. Simultaneously, the dialysis team sprung into action.

Following assessment of the patient, they decided to initiate haemodialysis, and the same was planned for the next morning. The dialysis team started completed the procedure successfully in the COVID ICU itself. The case is an inspiring story for other medical professionals in Punjab showing that balancing existing co-morbidities and COVID-19 treatment is possible.

#### 9.4 Mother and child health



Expecting mothers are particularly vulnerable to emerging infectious pathogens due to alterations in immune, respiratory, and cardiovascular physiology that occur during pregnancy. Past epidemics—including influenza H1N1, Ebola virus and Zika virus revealed high rates of maternal morbidity, fetal loss, and complications. <sup>12</sup> As pregnant women remain at risk of severe disease requiring intensive care, protecting them during the pandemic is of paramount importance.

During the lockdown, immunization services continued to be provided at all government facilities round the clock for pregnant women, high risk pregnancies, newborn and children in all the districts of Punjab. To further improve the facilities for pregnant women and children, the Hon'ble Health Ministers issued orders that all empanelled private hospitals under Sarbat Sehat Bima Yojna could also admit the pregnant women for caesarean delivery, high risk delivery, normal delivery and caesarean hysterectomy without government facility referral required, thereby improving access to care. **Despite** the lockdown, in the month of March, about 32000 pregnant women were registered for antenatal check-up and 25000 deliveries took place at both government and private hospitals in the state.

At the district level, health care of pregnant women, newborns, children, lactating mothers, was being provided through Districts Hospitals, Sub Divisional Hospitals, CHC, PHC and subcentres by providing antenatal, intrapartum and postnatal health care by doctors, nurses, ANMs and ASHA workers.

In addition, doctors and nurses were kept abreast of latest protocols instituted to ensure safety of pregnant women and their kin during the pandemic. An online training for doctors and staff working in MCH services: "Guidance for the management of pregnant women in COVID-19 pandemic" was specially arranged by National Health Mission, Punjab, on 13th May 2020 and was attended by about 600 doctors and staff nurses working in the labour room and SNCU across the state.

The number of deliveries in the three Government Medical Colleges, as on 5 Aug 2020 have been shown in the table below:

Table 3: COVID-19 deliveries in GMCs

Institute	Number of COVID-19 females registered	LSCS	Normal deliveries
GMC Amritsar	34	11	4
GMC Patiala	52	8	9
GMC Faridkot	15	3	1

as of 5th Aug 2020

## Box 10: Setting up a COVID gynaecology ward at GMC, Patiala



At the start of the pandemic, when the gynaecology team at GMC Patiala was informed they would be setting a COVID labour room, they knew they had a tough task ahead. Keeping personal fears aside, they rose to the challenge and successfully created a safe, hygienic and happy place for newborns to enter the world.

The biggest challenge faced was to shift the entire existing labour room to an isolated area. The tubectomy OT complex was identified as the only feasible place in the hospital, and the team got to work. In addition, the entrances were also changed around, such that a separate entry was made for COVID positive patients. New SOPS were instituted, and drills were organized for practice purposes. Using adequate PPE to prevent contamination was identified, but the team was also reminded to reduce wastage.

To keep morale high as well as provide open channels of communication, a WhatsApp group was created, titled "Isolation working group". The group helped greatly to motivate healthcare workers, applaud them and listen to grievances and feedback provided.

#### Antenatal COVID positive patients

Most of these were referred following a positive test The test was either undertaken because of contact history or as routine antenatal testing. Fortunately, most of them remained asymptomatic. Only one patient reported fever with no other symptom. She was put on Inj Ceftriaxone 1 G I/V BD and Tab Azithromycin 500 mg OD in consultation with physician.



One particular COVID patient did not want to stay in the facility alone, and insisted her husband accompany her. Even after much counselling, she would not agree. Finally, she had to be sent for home isolation, after informing and coordinating with district authorities.

Although babies were being delivered in an entirely different ward, the staff worked hard to ensure care was not compromised at all, and even tried their best to accommodate special requests. Providing nutritious food, ensuring regular sanitization, keeping spirits high were key aspects of the new ward.

Patient condition	COVID positive patients
Antenatal	24
Postnatal	2
LSCS done	6
Vaginal deliveries	3
Medical abortion	1

In a short time, the team grasped the routine, and many babies were successfully delivered despite the challenging circumstances. The support of the Anaesthesia and Paediatric departments deserves mention, as well that of Dr. RPS Sibia and the Department of Medicine, the medical superintendent Dr. Paras Pandove, and the principal, Dr. Harjinder Singh.

#### 9.5 Vector-borne diseases

The onset of the monsoon season usually coincides with a surge in both vector-borne and water-borne diseases including dengue, chikungunya, malaria and typhoid. This year, they are also likely to confront a strained public health system, an already stressed population and severe infrastructural constraints. Lockdown measures may also be contributing to increased mosquito larvae in areas such as unmanned construction sites, where pools of stagnant water form due to rainfall, creating the perfect breeding site for these mosquitoes.

Thus, these diseases must be tackled pre-emptively, so as to prevent additional disease outbreaks during the pandemic. In Punjab, the two main diseases of concern are dengue and malaria. Nearly 10,400 cases of dengue and 1,100 of malaria were recorded in 2019.

Keeping this in view, the Health and Welfare Minister, Mr. Balbir Singh Sidhu has instructed all civil Surgeons to intensify the measures to prevent and control the dengue and other Vector Borne Diseases (VBDs) in collaboration with departments of State Task Force. Significant measure were taken place based on the affected areas during the previous year, besides fogging in the fixed time frame as per micro plans through coordination of teams from Health and Local Bodies, Rural Development, Education, Transport and other stakeholder departments. The staff deployed on field duties for prevention of dengue and other VBDs adhered strictly to safety guidelines of COVID-19.

Precautionary measures for Aedes Mosquito such as spray and fogging are being taken, with the help of the Department of Local Bodies in urban areas and Department of Rural Development and Panchayats in rural areas.

Breeding checking for source reduction is also carried out diligently, in stagnant water pools, as well in household coolers and tanks. Furthermore, citizens are encouraged to take a proactive approach to curbing the spread of vector-borne diseases themselves, by emptying household items like flower pots and water containers regularly, wearing full-sleeve clothes, using mosquito repellents and generally maintain a healthy lifestyle. These measures will go a long in protecting citizens.

#### New dengue testing laboratory at SDH Ajnala

The state government had proposed a new dengue testing laboratory at SDH Ajnala to Government of India last year. The GoI, on 23<sup>rd</sup> May, 2020 approved the dengue testing laboratory at Amritsar as an increase in number of dengue cases were reported in Ajnala in 2019.



There are already 34 approved laboratories in the state for dengue testing, and this will be 35th laboratory to be built. The testing and treatment of dengue and chikungya is free of cost in government of hospitals.

#### Patiala

Due to unexpected rainfall in Patiala city, many areas were rendered waterlogged. These conditions were conducive for the germination of dengue larvae. Though fogging had already been initiated to counter the dengue menace, the drive was augmented by the introduction of bigger vehicles. Larvicide granules were sprinkled in waterlogged areas to eliminate the dengue larvae.

Following the detection of dengue larvae on 24 April 2020, the Health Department appealed to the city residents to be more vigilant and discard or clean their potential containers of rainwater in their premises. The Health Department also declared "Friday as Dry Day" so that preventive activities are undertaken at least once a week at the household level.

## 9.6 Drug addiction



In the last few years, Punjab has made a concerted effort to combat drug abuse in the state. In 2017, the Hon'ble Chief Minister formed a Special Task Force (STF) to tackle the drug problem and take on the drug mafia in the state. One major initiative set in motion by the task force was the launch of Outpatient Opioid Assisted Treatment (OOAT) centres. The centres were set up to administer de-addiction medicine—a combination of buprenorphine and naloxone— to registered addicts. Administered in the form of a pill, the opioid assisted treatment is intended for addicts who are hooked to and dependent on various opioid drugs, including heroin, poppy husk and opium. There are currently 199 government-run OOAT centres in Punjab where medicine is given free of cost.

One silver lining of the COVID-19 lockdown was that it broke the supply chain narcotics to the state. In a parallel effort to continue curbing the drug menace of the state, the Government of Punjab provided regular drug de-addiction treatment services to patients through OOAT centres even during the lockdown.

There was a substantial increase of the patients in OOAT centres during the lockdown period; more than 5.44 lakh patients were registered on the central online portal system under the drug deaddiction program. Giving relief to those fighting addiction, all OOAT clinics, 35 government deaddiction centres and 108 licensed private deaddiction centres were allowed to provide the dose of buprenorphine and naloxone drugs to registered patients after being evaluated by a psychiatrist. These centres made sure to follow social distancing protocols while providing treatment.

Since 23rd March 2020, around 1.29 lakh new patients sought treatment across the state (as of 19<sup>th</sup> June). A special allowance was made to extend the take home dosage for a maximum of 21 days. This step was taken to minimize patient visits to the centres, which would increase risk of exposure to COVID-19, and were also logistically difficult due to the lockdown. Once lockdown restrictions began to ease, take-home medicines were issued for a maximum of seven days and counselling emphasized, so as to avoid patients relapsing into previous addiction habits. Patients were thoroughly sensitized about coronavirus and its preventive measure during their visit to centres. Counselling of patients was also conducted in the isolation ward and those in quarantine.

Simultaneously, educational efforts, awareness programmes and counselling also continue at OOAT clinics and in the community—an integral component of the war against drugs.



#### 10. Reflections



## Building a community of experts

The input of public health experts, epidemiologists and infectious disease doctors has been invaluable during the course of the pandemic. The committees formed by the state government to tackle healthcare-related issues-: the Health Sector Response and Procurement Committee, the COVID Care Committee and the Upgradation of Health Sector Infrastructure Committee have been at the forefront of the states COVID-19 response. Members have also been actively coordinating with

departments of Health and Family Welfare and Medical Education and Research to guide them in taking prompt decisions and resolve any issues that may arise. Apart from this, there have been Expert Critical Care Groups, which have been formed at all three Government Medical Colleges. They hold meetings on every Saturday to resolve and solve various issues that may arise. The frequent coordination and meaningful collaboration of various experts has been the strategy of the state thus far, with positive results to show for it.



## More testing, fewer cases

Worldwide, it has been established that the greater the number of tests, the better the overall crisis response. Ramping up testing leads to more rapid identification of cases, tracking down and quarantining of contacts as well as timely isolation and treatment of patients—all part of a broader containment strategy.

With the appropriate use of technology vis a vis dedicated manpower, the state government has optimally enhanced the testing capacity of the 3 GMCs to more than 3000 each per day, which is a benchmark for all other labs in the country-- even the regional labs, who have been seeking guidance on how to replicate this model. Punjab's enhanced testing capacity sets an example for other states to follow.

There has also been a robust external and internal quality assurance program to monitor the labs and ensure high standards of accuracy. The Government of Punjab is also setting up four additional testing labs to enhance capacity further.



# Strength in numbers: enhancing health infrastructure and manpower

The pandemic has shone a light on the limited allocation of funds towards health infrastructure, reduced expenditure on healthcare and acute shortage of manpower. Particularly, it has revealed a stark disparity between the existing manpower and actual requirements in Level II and Level III facilities, which cater to more critical patients. Going forward, addressing these gaps in

infrastructure will be key to improving health systems in the long term. The current crisis also brought to the forefront the cumbersome processes involved in obtaining approvals for recruitment to even begin the hiring process. However, with the diligent efforts of the administration, the current need for doctors, nurses, scientists and other paramedics has been sufficiently met.



### Bolstering core capacities towards a stronger healthcare system

All health systems around the world are recognizing the urgent need to shape a set of core capacities for pandemic preparedness and response. The experience of Punjab has been no different. Two important core capacities that should be prioritized are: establishing comprehensive surveillance systems to reliably and rapidly detect infectious, and building a health workforce that can carry out emergency and disaster risk management. The first phase of the

pandemic has also shown that a strong primary healthcare system, which can carry out contact-tracing, surveillance and support frontline workers will be essential going forward. In Ludhiana, members of the community are already being trained under the *Lok Sanjhdari* program to help with surveillance, contact tracing and prevention. Community health workers can be an important bridge between broader public and the government, and their training can further be leveraged in future public health crises as well.



### Saving lives through innovation and collaboration

Although COVID-19 has been an entirely new experience for all doctors, certain best practices and successful techniques have emerged over the past few months. For example, delaying and preventing shifting of patients to ventilators has yielded positive results, and the use of high flow canula and non-invasive ventilation techniques has managed to save many lives. While mortality rates have been high for patients on invasive ventilation, there is a high recovery rate for patients on non-invasive ventilation.

This might be one reason why Punjab's mortality rate falls below the national average.

Such innovative successes, when realized, should be shared extensively with other doctors and medical professionals on the frontlines. In a medical crisis as unforeseen and foreign as this one, the rapid sharing of new medical knowledge—through Whatsapp groups, online communication platforms, weekly update sessions — has contributed tangibly to patient survival rates.



## Beyond COVID: maintaining regular health services

Despite the urgency demands of the ongoing pandemic, it is important to focus not only on the healthcare of COVID-19 patients, as well as those suffering from other ailments, especially time-sensitive and advanced stage conditions. This becomes key not only to prevent worsening outcomes for patients, but also to preserve future hospital capacity. Thus, every effort has been made

to continue regular functioning of healthcare delivery services. Another concern is mother and child health amidst the pandemic. In Punjab, separate labour rooms and operation theatres for COVID positive expecting mothers have been demarcated at all three Government Medical Colleges, thereby reducing overall exposure and risk. In these three institutions, a total of 45 mothers tested positive for COVID (as of 24<sup>th</sup> July 2020), but none of their new-borns contracted the virus.



# SOP-1: Specimen Collection, Packaging and Transport Guidelines for 2019 novel Coronavirus (2019-nCoV)

## Requirements for Clinical Samples Collection, Packaging and Transport

- Sample vials and Virus Transport Medium (VTM)
- Adsorbent material (cotton, tissue paper), paraffin, seizer, cello tape
- A leak-proof secondary container (e.g., ziplock pouch, cryobox, 50 mL centrifuge tube, plastic container)
- Hard-frozen Gel Pack
- A suitable outer container (e.g., thermocol box, ice-box, hard-board box) (minimum dimensions:  $10 \times 10 \times 10 \text{ cm}$ )

## Procedure for Specimen Packaging and Transport



Use PPE while handling specimen



Seal the neck of the sample vials using parafilm



Cover the sample vials using absorbent material



Arrange primary container (vial) in secondary container



Place the centrifuge tube inside a zip-lock pouch



### SOP-1 Contd.



Place the zip-lock pouch inside a sturdy plastic container and seal the neck of the container



Use a thermocol box as an outer container and place the secondary container within it, surrounded by hard-frozen gel packs



Using a hard card-board box as an outer container and place the secondary container and the gel packs



Place the completed Specimen Referral Form (available on www.niv.co.in) and request letter inside a leak-proof, zip-lock pouch



Secure the zip-lock pouch with the Specimen Referral Form on the outer container



Attaching the labels: Senders' address, contact number; Consignee's address /contact number; Biological substance Category B;'UN 3373'; Orientation label, Handle with care



Documents to accompany:

1) Packaging list/proforma Invoice 2) Air way bill (for air transport) (to be prepared by sender or shipper) 3) Value equivalence document (for road/rail/sea transport) [Note: 1. A vaccine-carrier/ice-box can also be used as an outer container 2. The minimum dimensions of the outer container should be 10 x 10 x 10 cm (length x width x height)]



# SOP-2.1: Handling COVID-19 samples in Laboratories (For Clinical Laboratory not equipped with Fully Automated system)

## Precautions of COVID-19 Samples in a Lab



Use of Proper PPE (Face masks (Double), Gloves (Double), Goggles/Face Shield)

### Pre- Analytical Area



Receive the sample and isolate it in separate rack. If the lab doesn't have HIS then another person will receive the requisition slip and match the credentials



Spray 1% Na Hypochlorite & keep it for 30 minutes



Centrifuge the sample for 10 min in dedicated centrifuge



Keep the tube upright position for 30 min after tubes out the centrifuge

## **Analytical Area**



Uncap the vacutainer and start the manual procedure with designated kits and instruments (Please allot a designated place to do the perform the tests in COVID - 19 samples)



Inform the on duty Biochemist



Decontaminate all the instrument and spray 1% hypochlorite over the kits



## SOP-2.1 Contd.

## Post Analytical Area



Pour 1% sodium Hypochlorite in Vacutainer and recap it



Discard in Double Yellow Bags. Then label it properly



Then pack it and the bag containing the tips, tissue papers used in cardboard box and seal and label properly



Discard it according to BMW Management Protocol.



Clean all working area with virex



Dispose the used PPE in a proper manner according to the hospital BMW protocol



In case of any spillage or breakage of tube, pour 1% sodium hypochlorite solution over it and keep it that way at least for 30 minutes and wipe off. Clean the area with virex



# SOP-2.2: Handling COVID-19 samples in Laboratories (For clinical laboratory equipped with fully automated system)

## Precautions of COVID-19 Samples in a Lab



Use of Proper PPE (Face masks (Double), Gloves (Double), Goggles/Face Shield)

## Pre- Analytical Area



Receiving the sample and isolate it in separate rack. If the lab doesn't have HIS then another person will receive the requisition slip and match the credentials



Spray 1% Na Hypochlorite & keep it for 30 minutes



Centrifuge the sample for 10 min in dedicated centrifuge



Keep the tube upright position for 30 min after tubes out the centrifuge

# Analytical Area



Uncap the vacutainer and run the COVID-19 sample on autoanalyzer



Inform the on duty Biochemist



After completion of sample, manually wash sample probe (20 cycles)



## SOP-2.2 Contd.

## Post Analytical Area



Pour 1% sodium Hypochlorite in Vacutainer and recap it



Discard in Double Yellow Bags. Then label it properly



Then pack it and the bag containing the tips, tissue papers used in cardboard box and seal and label properly



Discard it according to BMW Management Protocol.



Clean all working area with virex



Dispose the used PPE in a proper manner according to the hospital BMW protocol



In case of breakage of vial or spillage of sample: In case of any spillage or breakage of tube, pour 10% sodium hypochlorite solution over it and keep it that way at least for 30 minutes and wipe off. Clean the area with virex.



# SOP-3: SOP for transporting a suspect/confirmed case of COVID-19

#### **General Instructions**

There should be ambulances identified specifically for transporting COVID suspect patients or those who have developed complications, to the health facilities. Currently, there are two types of ambulances - ALS (with ventilators) and BLS (without ventilators). States may empanel other ambulances having basic equipment like that of BLS and use it for COVID patients. However, this must be ensured that strict adherence to cleaning and decontamination protocols in the guidance note need to be followed. The fleet in charge or person designated by CMO/CS, will supervise its adherence.

Call centres after receiving the call will try to triage the condition of the patient and accordingly dispatch either ALS, BLS or other registered ambulances. However, it needs to be ensured that 102 ambulances should not be used for corona patients and should only be used for transporting pregnant women and sick infants.

Ambulance staff (technicians as well as drivers) should be trained and oriented about common signs and symptoms of COVID-19 (fever, cough and difficulty in breathing) (A Sample Questionnaire is available on Annexure I of this link ). They should also be aware about common infection, prevention and control practices including use of Personal Protective Equipment (PPE). Both the EMT and driver of ambulance will wear PPE while handling, managing and transporting the COVID identified/ suspect patients. Similar use of PPE is to be ensured by the health personnel at receiving health facility. Patient and attendant should be provided with triple layer mask and gloves. Simple public health measures like hand hygiene, respiratory etiquettes, etc. need to be adhered by all.

## SOP for transporting a suspect/confirmed case of COVID-19



Call centre: On receiving the call, the call centre needs to enquire following details:

- a. Demographic details of the patient i.e. name, age, gender etc.
- b. To ascertain whether the patient is suspect case of COVID-19
  - Symptoms of patient: Ask whether the patient is suffering from fever, cough and difficulty in breathing
  - Whether patient has recently returned from a foreign country
  - Whether the patient was under home quarantine as directed by local
  - health administration
- c. Clinical condition of patient to be transported: whether stable or critical



In case of an inter-facility transfer, the casualty medical officer of the referring hospital has to ensure that bed is available in referral hospital with supporting equipment and needs to convey the same while making the call



Assign the job to nearest ambulance with dedicated facility at strategic locations as mentioned and-

 Check for state of preparedness of ambulance Ensure PPE for ambulance staff



# SOP-3 Contd.



Both call centre and ambulances should always keep the updated list of available hospitals and beds.



On receiving the call, from the call centre and prior to shifting the patient, EMT will perform following:

- The EMT will seek the above mentioned details again to ensure whether the patient is a suspect case of COVID-19.
- The EMT will wear the appropriate PPE.
- The EMT shall assess the condition of the patient
- If the patient is ambulatory and stable, he/she may be asked to board the ambulance otherwise the EMT (while using the prescribed PPE) may assist loading of patient.
- Only one caregiver should be allowed to accompany the patient (while using the prescribed PPE).
- EMT should also ensure availability and provision of adequate triple layered mask and gloves for patient and/or attendant.
- The patient and the care giver will be provided with a triple layer medical mask.
- EMT will contact the identified health facility for facility preparedness and readiness.



#### Management on board

- Measure vitals of patient and ensure patient is stable.
- If required, give supplementary O2 therapy at 5 L/min and titrate flow rates to reach target SpO2 ≥90%.
- If patient is being transported on ventilator to a higher centre, follow ventilator management protocols, provided the EMT is either trained or assisted by a doctor well versed in ventilator management.



#### Handing over the patient

- On reaching the receiving hospital, the EMT will hand over the patient and details of medical interventions if any during transport. After handing over the patient, the PPEs will be taken off as per protocol followed by hand washing. Use Alcohol based rub /soap water for hand hygiene.
- The biomedical waste generated (including PPE) to be disposed off in a bio-hazard bag (yellow bag). Inside would be sprayed with Sodium Hypochlorite (1%) and after tying the exterior will also be sprayed with the same. It would be disposed off at their destination hospital. This shall again be followed by hand washing.



# SOP-3 Contd.



#### Disinfection of ambulance

- All surfaces that may have come in contact with the patient or materials contaminated during patient care (e.g., stretcher, rails, control panels, floors, walls and work surfaces) should be thoroughly cleaned and disinfected using 1% Sodium Hypochlorite solution.
- Clean and disinfect reusable patient-care equipment before use on another patient with alcohol based rub.
- Cleaning of all surfaces and equipment should be done morning, evening and after every use with soap/detergent and water.



### Capacity building

District Authorities to ensure capacity building of EMT and driver on following areas:

- Donning and doffing of PPE
- Infection prevention protocols given in this guideline
- Triaging and identifying COVID-19 suspects based on their signs and symptoms.
- Similarly, emergency staff of health facility should also be trained in segregation, isolation and management of COVID-19 patients. They should not be mixed with other patients.



#### Monitoring

A checklist for weekly monitoring by District Surgeon/ Anaesthetist is at MoHFW website.



## SOP-4: SOP for a Micro Containment Zone



Any specific area within a village/ Ward having more than 5 and up to 15 COVID positive cases and with a population of not more than 500 shall be designated as Micro Containment Zone



District Administration shall notify Micro Containment Zone in consultation with the District Level Technical Committee comprising of Civil Surgeon, Nodal Officer from District Administration, District Epidemiologists. District Technical Committee should also consult the state epidemiologist.



The strategy would be to contain the disease within a defined geographical area by early detection, breaking the chain of transmission and thus, preventing its spreading to new areas. This would include geographical quarantine, social distancing measures, enhanced active surveillance, testing all suspected cases, isolation of cases/home quarantine social mobilization to follow preventive public health measures.



District RRT teams would undertake mapping of cases and contacts in these areas along with active surveillance by ASHA workers/ Community Volunteers.



The perimeter control will ensure that there is no unchecked outward movement of population from micro-containment zone except for maintaining essential services (including medical emergencies) and government business continuity. It will also check influx of population into the containment zone. All vehicular movement, movement of public transport and personnel movement will be restricted.



Details of all persons moving out of perimeter zone for essential/emergency services will be recorded and they will be followed up through IDSP



# SOP-4 Contd.



Activities to be carried out in Micro Containment Zone:

- Establishment of clear entry and exit points
- Extensive four level contact tracing must be ensured in such micro contained area
- House to House survey must be carried out on daily basis
- Testing of the Symptomatic/ Suspected cases/ high risk shall be done as per protocol.
- Random stratified sampling shall be carried out in such areas.
- Clinical management of all confirmed cases.
- Community based communication- Advocacy on hand hygiene. Respiratory hygiene, environmental sanitation and wearing of masks/face covers.
- Strict enforcement of social distancing/ home quarantine



Period of micro-containment would be for at least Ten days. If in the last five days, there are not more than one new case reported from the area, micro-containment area shall cease to exist. Otherwise period of micro-containment would be extended by one week at a time.



## SOP-5: SOP for State and District Control Rooms



To monitor implementation of activities to contain local transmission of COVID-2019 disease a state control room should be set up. The creation of control room will ensure a single incident command structure for coordination of all activities related to COVID-19 containment and efficient use of resources.



The control room should be headed by a state health department officials/ State surveillance officers. The Control room incharge will supervise activities related to surveillance, call centre, media scanning, sample collection and intersectoral coordination.



Following sub-teams should be formulated for the control room:

- 1. Surveillance team
- 2. Call Centre management team
- 3. Media Surveillance team
- 4. Sample tracing team
- 5. Private hospital surveillance team
- 6. Transportation and ambulance management team
- 7. Inter departmental and coordination team



Control room call centre should be set up in state as well as district. The call centre is to be set up with 3 laptop, 3 mobile/ landline telephone facility. Each Call Centre Operator is to be assigned both a telephone and a computer. One outgoing mobile facility also available for answering pending calls. Two WhatsApp number also be made available in control management room.



Mandates for call centre:

- Call centre will be operational 24\*7
- Documentation of all the activities happening in call centre
- Daily consolidation report at 4.30 pm.
- Establishing call centre with sufficient connectivity
- To answer medical queries, logistics and administrative issues regarding health and health related problems
- Daily maintenance of second and third level call referral. Compilation format



# SOP-6: Disinfection of facilities

#### SOP for disinfection of common public places



**Office spaces**, including conference rooms should be cleaned every evening after office hours or early in the morning before the rooms are occupied. If contact surface is visibly dirty, it should be cleaned with soap and water prior to disinfection.

- The worker should wear disposable rubber boots, gloves (heavy duty), and a triple layer mask
- All indoor areas should be mopped with a disinfectant with 1% sodium hypochlorite or phenolic disinfectants
- High contact surfaces such elevator buttons, handrails / handles and call buttons should be cleaned twice daily by mopping with a linen/absorbable cloth soaked in 1% sodium hypochlorite
- For metallic surfaces like door handles, security locks, keys etc. 70% alcohol can be used to wipe down surfaces where the use of bleach is not suitable



**Outdoor areas** have less risk then indoor areas due to air currents and exposure to sunlight. These include bus stops, railway platforms, parks, roads, etc. Cleaning and disinfection efforts should be targeted to frequently touched/contaminated surfaces



Sanitary workers must use separate set of cleaning equipment for **toilets and sinks**. They should always wear disposable protective gloves while cleaning a toilet

- 70% Alcohol can be used to wipe down surfaces where the use of bleach is not suitable
- Do not use disinfectants spray on potentially highly contaminated areas as it may create splashes which can further spread the virus
- To prevent cross contamination, discard cleaning material made of cloth in appropriate bags after cleaning and disinfecting. Wear new pair of gloves and fasten the bag
- Disinfect all cleaning equipment after use and before using in other area
- Disinfect buckets by soaking in bleach solution or rinse in hot water



# SOP-7: Disposal of waste

## SOP for disposal of biomedical waste in COVID-19 Isolation wards



Keep separate color coded bins/bags/containers in wards and maintain proper segregation of waste as per BMWM Rules, 2016 as amended and CPCB guidelines for implementation of BMW Management Rules



As precaution, double layered bags should be used for collection of waste from COVID-19 isolation wards so as to ensure adequate strength and no-leaks



Collect and store biomedical waste separately prior to handing over the same to CBWTF. Use a dedicated collection bin labelled as "COVID-19" to store COVID-19 waste and keep separately in temporary storage room prior to handing over to authorized staff of CBWTF



Bags/containers used for collecting biomedical waste from COVID-19 wards, should be labelled as "COVID-19 Waste". Use dedicated trolleys and collection bins in COVID-19 isolation wards



General waste not having contamination should be disposed as solid waste as per SWM Rules, 2016



The (inner and outer) surface of containers/bins/trolleys used for storage of COVID-19 waste should be disinfected with 1% sodium hypochlorite solution daily

# SOP for disposal of biomedical waste from Quarantine Camps or Home-Care facilities



General solid waste (household waste) generated from quarantine centres/camps should be handed over to waste collector identified by Urban Local Bodies or as per the prevailing local method of disposing general solid waste



Biomedical waste if any generated from quarantine centres/camps should be collected separately in yellow colored bags (suitable for biomedical waste collection) provided by ULBs. These bags can be placed in separate and dedicated dust-bins of appropriate size



Persons operating Quarantine camps/centres should call the CBWTF operator to collect biomedical waste as and when it gets generated, and should deposit biomedical waste generated from suspected or recovered COVID-19 patients, by following any of the following methods as may be arranged by ULBs:

- Hand over the yellow bags containing biomedical waste to authorized waste collectors at door steps engaged by local bodies
- Deposit biomedical waste in yellow bags at designated deposition centres established by ULBs
- Handover the biomedical waste to waste collector engaged by CBWTF operator at the doorstep

## SOP for duties of CBWTF, SPCBs/PCCs and Urban Local Bodies



Duties to be performed by CBWTF, SPCBs/PCCs and ULBs regarding disposal of biomedical waste are available on PB health website.



# SOP-8: Sample Collection and reporting teams

### SOP to be followed by Collection Centres



All sample details should be entered only through RT-PCR App. No manual forms will be sent to labs. Collection centres will pick the samples in proper packaging, as per the guidelines defined by ICMR/ Gol



Each vial should have SRF ID on vial and line listing serial number on cap of the vial. VTM vials to be arranged in serial order as per the line list generated



Outer packing of samples will have line listing printed on it. The same line listing will be sent as an email to district head quarter. Hard copy of line listing needs to be sent along with it



Priority samples need to be packed in a separate box marked as 'PRIORITY' and should be entered first. Separate Line listing will be generated for the priority samples and pasted on the box having priority samples.



Routine samples will be packed in a different box list, for routine samples will be generated separately. This line list will be pasted on the outer box of samples.



Samples will be moved to labs with safety using biosafety/bio security precautions.



Collection Centre In-Charge will ensure that serial order of the samples matches the line list generated and send it to the District Head Quarter



# SOP-8 Contd.



District Level Microbiologist/ Epidemiologist will check that the samples are properly packed and collect all emails from the collection centres and send them to the respective labs



District will create two boxes:

- a. Priority Sample Box
- b. Routine Sample Box



Samples can be sent to the labs latest by 6:00 PM. In case there is an emergency or priority samples need to be sent after 6:00 PM, District Epidemiologist will coordinate with IDSP Cell which will further coordinate with the respective labs



District representative to ensure S/he receives a copy of cover letter citing number of samples accepted and rejected by the lab along with date and time

## SOP to be followed by Labs



Labs will receive district-wise samples in two boxes: Priority Sample Box and Routine Sample Box. Labs will ensure that all line listings provided with samples must have the SRF IDs.



Labs will open district-wise boxes in the presence of district representative and match these with the line listings pasted on the box/ hard copy or email. In case there are any discrepancies, district representative will coordinate with the respective district



# SOP-8 Contd.





Labs will process the priority samples of all the districts first and their results will be shared with districts and results will be updated on ICMR Portal



Labs will fetch the details of the samples and enter the report on ICMR portal through SRF ID only. Labs will update the result on the ICMR portal on daily basis



Labs will share the results with districts on a daily basis on the excel sheet provided by the districts with a copy to IDSP Cell



## SOP-9 SOP for Home Isolation



Any person getting tested shall submit a consent form for Home Isolation stating that s/he has facility at their residence and are asymptomatic/mild symptomatic and their co-morbid conditions are under control. Health staff will assist in filling these undertakings and keep the filled and signed copies safe for record.



In case person turns out to be positive, s/he will be contacted by the District COVID tracking teams over phone to check the health status during isolation period.



Patients would be monitored by the COVID Positive Tracking team during the isolation period and immediately shift the patients to appropriate isolation facility if her/his conditions worsens. The team shall visit the patient thrice during isolation period.

## 1. Eligibility for home isolation



Such persons should have the requisite facility at their residence for self-isolation and also for quarantining the family contacts

#### 2. When to seek medical attention



Immediate medical attention must be sought if serious signs or symptoms develop which include:

- 1. Difficulty in breathing, dip in oxygen saturation (SpO2<95%)
- 2. Persistent pain/pressure in the chest
- 3. Mental confusion or inability to arouse, slurred speech/seizures
- 4. Weakness or numbness in any limb or face
- 5. Developing bluish discolorations of lips/face
- 6. Worsening of co-morbid conditions

#### SOP-9: Contd.



#### 3. Role of District Authorities



- District Authorities should manage all such cases
- COVID Positive tracking team will monitor health status of those under home isolation through personal visits and dedicated call centre.
- Mechanism to shift patient in case of worsening of symptoms.
- District Authorities should manage all such cases
- COVID Positive tracking team will monitor health status of those under home isolation through personal visits and dedicated call centre.
- Mechanism to shift patient in case of worsening of symptoms.
- All family members and close contacts to be monitored and tested.
- Patient on home isolation shall be discharged strictly according to the guidelines and with an issuance of a fitness certificate by the field team.

#### 4. Instruction to the patients



- Patient has to fill the consent form.
- Patient must procure a kit containing at least a pulse oximeter, thermometer, tab vitamin C and Tab Zinc.
- 24\*7 availability of a care giver. Care giver should take hydroxychloroquine prophylaxis as per protocol and prescription.
- Download COVA app and keep it active at all times.
- Patient shall agree to monitor his oxygen saturation and temperature every 6 hours everyday and regularly inform his status to District Nodal Officer.
- Patient should at all times use a triple layer medical mask. Discard mask after 8 hours of use or earlier if they become wet or visibly soiled.
- Patient must stay in the identified room and away from other family members especially elders and those with co-morbid conditions like hypertension, cardiovascular disease, renal disease etc.



#### SOP-9 Contd.

- Respiratory etiquettes should be followed all the time.
- Hands must be washed often with soap and water for at least 40 seconds or clean with alcohol based sanitiser
- Don't share personal items with others.
- Clean room surfaces with 1% hypochlorite solution
- Physician's instructions and medication advice should be strictly followed.
- The patient will self-monitor his/her health with daily temperature monitoring, SpO2 monitoring every 6 hours and keep a record of it and report promptly if develops any deterioration of symptoms

#### 5. Discontinuation of Home Isolation



Patients should be discharged after 10 days of symptom onset and no fever for 3 days. Patient will be advised to isolate at home and selfmonitor their health for further 7 days. Testing is not required after Home Isolation period is over.

#### 6. Instruction for caregivers



#### Mask:

- Triple layer medical mask should be used when in room with the patient.
- Front portion of the mask should not be touched or handled during use.
- Mask must be changed immediately if gets wet or dirty.
- Discard the mask after use and perform hand hygiene.
- Avoid touching own face, nose or mouth.



#### Care of patient and family:

- Care giver ensures prescribed treatment for the patient.
- Self-monitor of caregiver and all close contact with daily temperature monitoring and report if they develop any symptoms.



## SOP-9 Contd.



#### Hand Hygiene:



- To be practiced before and after preparing food, before eating, after using toilet and before and after removing gloves etc.
- Use soap and water to wash hands at least for 40 seconds. Alcohol based hand rub can be used.
- Use of disposable paper towels to dry hands is desirable. Dedicated clean cloth towels can also be used and replaced when wet.



#### Exposure to patient/patient's environment:

- Direct contact with body fluids of patient should be avoided, especially oral
- or respiratory secretions.
- Use of disposable gloves while handling the patient.
- Exposure to potentially contaminated items to be avoided (e.g. avoid sharing cigarettes, eating utensils, dishes, drinks, used towels or bed linen)
- Food must be provided to patient in his room.
- Utensils to be cleaned with soap/detergent and water whilst wearing gloves.



## SOP-10: RAT kit distribution to private facilities



A separate isolated area for sample collection should be provided in private hospitals/clinics. Person taking the samples will ensure complete Personal protective Gear. Arrangement for biomedical waste management generated by the test should be provided.



All rapid antigen test results are entered into ICMR portal using login ID credentials provided by the Department.



- All asymptomatic High risk contact of positive cases and symptomatic persons, who are negative by rapid antigen test, another NO/OP swab to be collected in VTM to be sent to real-time RT-PCR lab for COVID-19 testing.
- Required logistics to be arranged by private hospital for such samples and be sent to RT-PCR testing lab or nearest Government Health facility.



Samples sent by private hospitals/clinics shall be tested free of cost at Government Labs.



- Patient ID, patient name and contact number used for rapid antigen testing should be communicated to respective RT-PCR COVID-19 testing lab along with SRF ID to upload test results into ICMR portal. A new patient ID/SRF ID should not be registered for the follow up RT PCR test.
- Details shall be filled as per ICMR protocol in the RT-PCR App. The user name and passwords for the same shall be provided by Civil surgeons for collection centres.
- Institute/lab name to be added in remark's column in RT-PCR app.



The private hospitals/clinics/labs availing this facility shall not charge more than Rs. 250/- from patients for Rapid Antigen Testing.





The lab shall submit details of sample collected, list of testing and results to respective Civil Surgeon of the district with a copy to State IDSP unit at Punjab.idsp@gmail.com and pocantigenpunjab@gmail.com



Maintaining inventory of RAT kits received and utilize and submit utilization certificate while claiming replenishments of supplies.



Confidentiality of patient data should be strictly maintained.

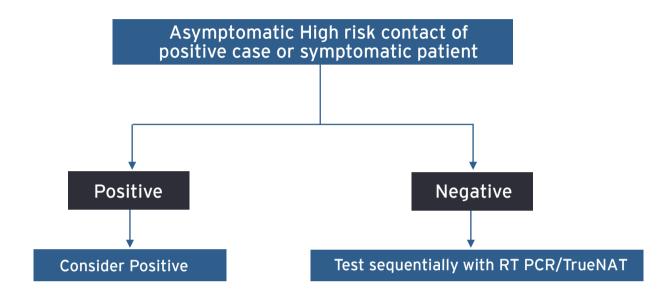


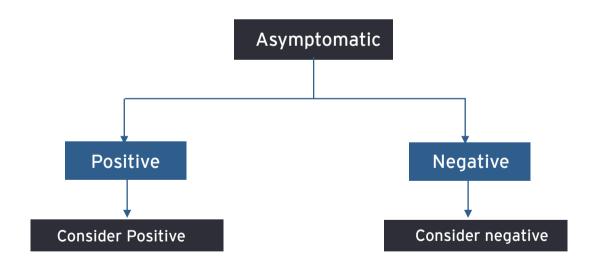
Protocol for testing by rapid Antigen Kits:

- a) Patient selection/prioritization
- Voluntarily willing to get COVID-19 testing done
- Severe Acute Respiratory Infection(SARI patients)
- Symptomatic high risk contacts of COVID-19 positive patients
- 100% RAT testing in the containment and micro-containment zones.
- Asymptomatic direct and high risk contacts of a confirmed case to be tested once between day 5 and day 10 of contact. If tested negative, RT-PCR to be done for such persons.
- Asymptomatic patients who are hospitalized or seeking hospitalization. Elderly patients (>60 years) with co-morbidities.
- Asymptomatic patients undergoing surgical/non-surgical interventions:
  - Elective/emergency surgical procedures
  - Non-surgical interventions like bronchoscopy, Upper GI endoscopy, dialysis
- Frontline health workers(Doctors, Nurses, Paramedical staff, field staff ANMs, ASHA etc)
- Essential service providers like sanitary workers, police officials and other administrative officials etc.
- Pregnant women approaching health facilities for labour.
- Outdoor patients in health facilities
- Vegetable vendors, labourers, shop-keepers, persons residing in high risk/crowded locations like slums etc.



#### The interpretation of results will be as follows:







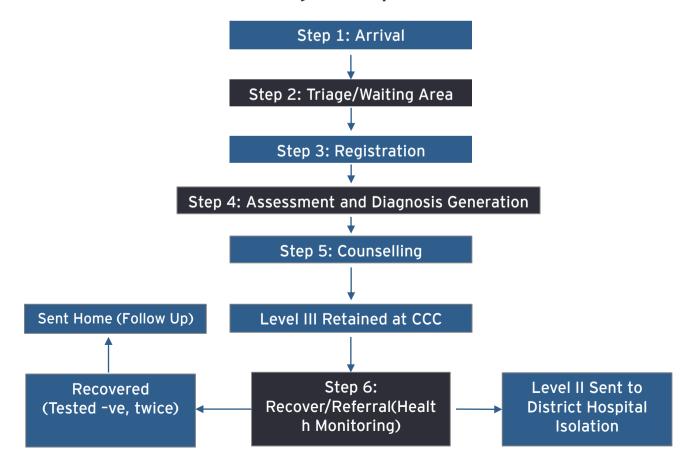
# SOP-11: Establishing and Operationalising COVID Care Centres

#### 12.1 Protocol: COVID-19 Case Management



- COVID patients can be categorized into three groups:
  - 1. Level I: Patients having very mild symptoms, such patients are to be admitted to COVID Care Centre facilities.
  - 2. Level II: Patients with mild to moderate symptoms, they are to be treated at District hospital/ government isolation Facilities.
  - 3. Level III: Patients who are in critical condition and are to be referred to ICU/HDU/Ventilator Facilities
- Level III facilities shall be triggered as per the directions of local health authorities. If patient graduates from very mild to mild symptoms s/he shall be shifted to Level II. In critical condition shall further be sent to Level I facilities.
- Minimal transfers should be done to prevent the spread. HR is exposed whenever there is a transfer.
- Only when the sample has been found positive, the patient should be brought to the CCC to be kept under constant observation by trained health care professionals.

#### 12.2 Flow chart of Patient Management System at CCC





#### 12.3 Workflow of COVID Care Centre (CCC)



Step 1 - Arrival: Positive patient in stable condition without symptoms or with mild symptoms will be admitted at the CCC.



#### Step 2 - Triage/Waiting Area

- A volunteer properly attired as per the protocol shall attend to the patients at the entrance.
- Patient shall be provided with the hand sanitizer and disposable triple layer mask.



#### Step 3 - Registration

- Patient's details are noted by the data entry operator /nurse /paramedical staff who will wear PPE kit and write detail.
- Patient details shall include their contact details, address, ID generation and generation of the file. Details of emergency contact and people/institutions/societies etc.



## Step 4 - Assessment and Diagnosis Generation

- Patient is sent to doctor for a medical examination. HMIS(Health management Information System) or any other system by Health department should be should be used to make case history online. A hard copy should be kept ready for the doctor to be aware of the patients case history.
- A paramedical staff should be present to assist the doctor. The doctor can record the diagnosis and treatment plan in the HMIS/System.
- Identification and segregation of high-risk patient(co-morbid conditions) and color-coded tagging(wrist bands) shall be done at this stage.



#### Step 5 - Counselling Support

- Special focus on mental health of the patients to speed up recovery.
- Counsellor will clarify patient's doubts and offer moral and emotional support.
- Patient may be guided to use 104 helpline number for further counselling and any queries after leaving the CCC





#### Step 6 - Recovery/referral:

- Each patient under stable/mild condition is to be kept in mandatory isolation of 14 days at a CCC initially with constant health monitoring.
- Post 14 days of having tested positive, another COVID-19 test is to be conducted. Patient will be considered to be recovered and sent home after counselling if tested negative twice in two days interval.
- If the patient's condition deteriorates to mild/moderate or critical, arrangements will be made for transfer to district hospital isolation facility/Level II or tertiary care/Level I facility.



#### Step 7 - In case of Death:

• The protocol prescribed by Government of India, Ministry of Health and family Welfare under COVID-19 Guidelines on Dead Body management shall be adhered to.

#### 12.4 Human Resource Requirements



- Deployment of all medical, as well as paramedical staff and provision of medical supplies at the CCCs, shall be done by the Department of Health and Family Welfare.
- Manpower requirement for security and all security arrangements at the CCCs shall be worked out by the Police Department.

#### 12.5 Movement Protocol at CCCs



- Patients and medical staff should be instructed to sanitize their hands at regular intervals.
- Patients should move in a specific line maintaining at least 3ft distance from each other.
- Wearing masks shall be mandatory for the patients and staff within facility.
- Display of protocols and IEC material at all prominent locations in the facility.
- Maintain decorum and cooperate with the hospital staff and patiently wait for their turn.



- Separate entrances and exits for patients and staff if possible, to reduce interaction.
  - 1. Separate entrances and exits earmarked for patients and staff to reduce interaction, if possible.
  - 2. Multiple lifts, if available should be marked for use by staff and patients specifically. Frequent sanitization of lifts. Use of stairs to be recommended for people who do not have any physical discomfort.
  - 3. In case of multiple entry and exit gates, gate numbers should be allocated for the movement of patient and staff.

#### 12.6: Checklists for guidance for setting up and operationalization of CCC:



- 1. Facility Infrastructure
- 2. Waiting Area/Triangle
- 3. Reception/Registration
- 4. Medical supplies for CCCs for 100 beds
- a. Medicines for Pharmacy
  - b. Medical requirements for 6 bedded Emergency Injections
  - c. Medical requirements for 6 bedded Emergency Medicines
  - d. Emergency Requirement for staff and Instruments required



- 5. Laboratory facility
- 6. Throat Swab Collection(COVID Rapid Test)
- 7. Isolation Room Facilities for patients
- 8. Room facilities for Doctors and Staff
- 9. Infection Prevention and control practices
- 10. Environmental Cleaning
- 11. Biomedical Waste Management
- 12. Other Waste Management
- 13. Trainings Conducted for staff deployed





#### 12.7: Annex A- Guidelines on Dead Body management in Level III

Standard Precautions to be followed by health care workers while handling dead bodies of COVID



Hand hygiene



Use of personal protective equipment (e.g., water resistant apron, gloves, masks, eyewear)



Safe handling of sharps



Disinfect bag housing dead body; instruments and devices used on the patient



Disinfect linen. Clean and disinfect environmental surfaces



All staff identified to handle dead bodies in the isolation area, mortuary, ambulance and those workers in the crematorium/burial ground should be trained in infection prevention control practices.

## Removal of the body from the isolation room or area



The health worker attending to the dead body should perform hand hygiene; ensure proper use of PPE (water resistant apron, goggles, N95 mask, gloves)



All tubes, drains and catheters on the dead body should be removed. Any puncture holes or wounds should be disinfected with 1% hypochlorite and dressed with impermeable material.





Exercise caution while handling sharps such as intravenous catheters and other sharp devices. They should be disposed into a sharps container.



Plug Oral, nasal orifices of the dead body to prevent leakage of body fluids.



Family of the patient may be allowed to wishes to view the body at the time of removal from isolation room or area.



Place the dead body in leak-proof plastic body bag. The exterior of the body bag to be decontaminated with 1% hypochlorite. The body bag can be wrapped with a mortuary sheet or sheet provided by the family members



All used/soiled linen should be handled with standard precautions, put in bio-hazard bag and the outer surface of the bag disinfected with hypochlorite solution.



Used equipment should be decontaminated with disinfectant solutions in accordance with established infection prevention control practices.



The health staff will remove personal protective equipment and perform hand hygiene.

#### Environmental cleaning and disinfection



All surfaces of the isolation area (floors, bed, railings, side tables, IV stand, etc.) should be wiped with 1% Sodium Hypochlorite minutes, and then allowed to air dry.



#### Handling of dead body in Mortuary



Mortuary staff handling COVID dead body should observe standard precautions



Dead bodies should be stored in cold chambers maintained at approximately 4°C



The mortuary must be kept clean. Environmental surfaces, instruments and transport trolleys should be properly disinfected with 1% hypochlorite solution. After removing the body, the chamber door, handles and floor should be cleaned with 1% hypochlorite solution



Embalming of dead body should not be allowed.

#### Autopsies on COVID-19 dead bodies



Autopsies should be avoided. If autopsy is to be performed, the following infection prevention should be adopted:

- Well trained team in infection prevention control practices. Forensic experts and support staff in the autopsy room should be limited.
- Team should use full complement of PPE(coveralls, head cover, shoe cover, N 95 mask, goggles/face shield)
- PM40 or any other heavy duty blades with blunted points to be used to reduce prick injuries. Round ended scissors should be used.
- Only one body cavity at a time should be dissected. Unfixed organs must be held firm on the table and sliced with a sponge.
- Negative pressure to be maintained in mortuary.
- Needles should not be re-sheathed after fluid sampling needles and syringes should be placed in a sharp bucket.
- Reduce aerosol generation during autopsy using appropriate techniques.
- After the procedure, body should be disinfected with 1% Sodium Hypochlorite and placed in a body bag, the exterior of which will again be decontaminated with 1% Sodium Hypochlorite solution.
- The body can be handed over to the relatives.
- Autopsy table to be disinfected as per standard protocol.



#### **Transportation**



The personnel handling the body may follow standard precautions (surgical mask, gloves)



The body, secured in a body bag, exterior of which is decontaminated poses no additional risk to staff transporting the dead body.



The vehicle, after the transfer of the body to cremation/burial staff will be decontaminated with 1% sodium hypochlorite

#### At the Crematorium/ Burial Ground



The crematorium/ burial ground staff should be sensitized that COVID-19 does not pose additional risk. The staff will practice standard precautions of hand hygiene, use of masks and gloves



Viewing of the dead body by unzipping the face end of the body bag (by the staff using standard precautions) may be allowed for the relatives.



Religious rituals such as reading from religious scripts, sprinkling holy water and any other last rites that does not require touching of the body can be allowed. Bathing, kissing, hugging, etc. of the dead body should not be allowed



Large gathering at the crematorium/ burial ground should be avoided as a social distancing measure as it is possible that close family contacts may be symptomatic and/ or shedding the virus



The funeral/burial staff and family members should perform hand hygiene after cremation/burial. The ash does not pose any risk and can be collected to perform the last rites



#### 12.8: Annex C - Guidelines for cleaning soiled bedding, towels and clothes



Clean laundry and surfaces in all environments where COVID-19 cases receive care at least once a day and when a patient is discharged. Use:

- Hospital disinfectants: 70% ethyl alcohol for small areas reusable dedicated equipment(e.g., thermometers)
- Sodium Hypochlorite at 1% for surface disinfection.



Staff dealing with soiled bedding, towels and clothes from COVID-19 patients should:

- Wear appropriate PPE heavy duty gloves, mask, eye protection(goggles/face shield), long-sleeved gown, apron and boots or closed shoes.
- Never carry soiled linen against body; place soiled linen in a leakproof bag or bucket.
- Perform hand hygiene after blood/body fluid exposure and after PPE removal.



Soiled linen should be placed in clearly labelled, leak-proof bags or containers, carefully removing any solid excrement and putting in covered bucket to dispose of in the toilet.

- Washing Machine: Wash at 60-90°C with laundry detergent followed by soaking in 0.1% chlorine for approx. 30 min and dried.
- Non machine washing: Soak in hot water with soap/detergent in a large drum. Use a stick to stir and avoid splashing. Empty the drum and soak linen in 0.1% chlorine for approx. 30 minutes. Rinse with clean water and let linens dry fully in the sunlight.



## 12.9: Annex D - Protocol for cleaning of Washroom/Other Spaces at the CCIC



- The floor of bathrooms, washbasins, door handles, doors and taps is to be cleaned and disinfected with 1% Sodium hypochlorite after every 2 hours.
- Toilets to be disinfected after the patient is discharged. All cleaning equipment to be disinfected before and after use in other areas
- Housekeeping staff should be provided with proper PPE including heavy duty gloves, mask, plastic apron for cleaning process.
- 70% alcohol can be used to wipe down surfaces where the use of bleach/Hypochlorite is not suitable, e.g. metal. Chloroxylenol(4.5-5.5%)/Benzalkonium Chloride or any other disinfectants found to be effective against coronavirus may be used.
- Discard cleaning material made of cloth to prevent crosscontamination.
- Disinfect buckets by soaking in bleach solution or rinse in hot water.
- Wipe all the walls/tiles up to access level with cloth dipped in 1% Sodium Hypochlorite and fogging with hypochlorite can be done for higher level.
- As per hospital guidelines broom are not to be used in patient care areas, only wet and dry mops.

# 12.10: Annex E - Guidelines for handling, treatment, and disposal of waste generated during treatment/ diagnosis/ Quarantine of COVID-19 patients

#### A) COVID-19 Isolation wards



- Keep separate colour coded bins/bags/containers in wards and maintain proper segregation of waste as per BMWM Rules
- Double layered bags (using 2 bags) should be used for collection of waste from COVID-19 isolation wards so as to ensure adequate strength and no-leaks;

- Collect and store biomedical waste separately prior to handing over the same CBWTF. Use a dedicated collection bin labelled as "COVID-19" to store COVID-19 waste and keep separately in temporary storage room prior to handing over to authorized staff of CBWTF.
- In addition to mandatory labelling, bags/containers used for collecting biomedical waste from COVID-19 wards, should be labelled as "COVID-19 Waste". This marking would enable CBWTFs to identify the waste easily for priority treatment and disposal immediately upon the receipt.
- General waste not having contamination should be disposed as solid waste as per SWM Rules, 2016;
- Maintain separate record of waste generated from COVID-19 isolation wards
- The (inner and outer) surface of containers/bins/trolleys used for storage of COVID-19 waste should be disinfected with 1% sodium hypochlorite solution daily.
- Report opening or operation of COVID-19 ward and COVID ICU ward to SPCBs and respective CBWTF located in the area.
- Depute dedicated sanitation workers separately for biomedical waste and general solid waste so that waste can be collected and transferred timely to temporary waste storage area.

# B) Sample Collection Centres and Laboratories for COVID-19 suspected patients



- Report opening or operation of COVID-19 sample collection centers and laboratories to concerned SPCB. Guidelines given at section (a) for isolation wards should be applied suitably in in case of test centers and laboratories also.
- C) Responsibilities of persons operating Quarantine Camps/Homes or Home-Care facilities\*



 Less quantity of biomedical waste is expected from quarantine Camps / Quarantine Home/ Homecare facilities. However, the persons responsible for operating quarantine camps/centers/homecare for suspected COVID-19 persons need to follow the below mentioned steps to ensure safe handling and disposal of waste;

- General solid waste (household waste) generated from quarantine centers or camps should be handed over to waste collector identified by Urban Local Bodies or as per the prevailing local method of disposing general solid waste.
- Biomedical waste if any generated from quarantine centers/camps should be collected separately in yellow colored bags (suitable for biomedical waste collection) provided by ULBs. These bags can be placed in separate and dedicated dust-bins of appropriate size.
- Persons operating Quarantine camps/centers should call the CBWTF operator to collect biomedical waste as and when it gets generated.
   Contact details of CBWTFs would be available with Local Authorities.
- Persons taking care of quarantine home / Home-care should deposit biomedical waste if any generated from suspected or recovered COVID-19 patients, by following any of the following methods as may be arranged by ULBs;
  - Hand over the yellow bags containing biomedical waste to authorized waste collectors at door steps engaged by local bodies; or
  - Deposit biomedical waste in yellow bags at designated deposition Centers established by ULBs. The bag again be stored in yellow bag or container; or
  - Handover the biomedical waste to waste collector engaged by CBWTF operator at the doorstep.
  - Persons operating Quarantine camps/centers or Quarantinehomes/Home-care should report to ULBs in case of any difficulty in getting the services for disposal of solid waste or biomedical waste.

## D) Duties of Common Biomedical Waste Treatment Facility (CBWTF):



 Report to SPCBs/PCCs about receiving of waste from COVID-19 isolation wards / Quarantine Camps / Quarantined homes / COVID-19 Testing Centers;



- Operator of CBWTF shall ensure regular sanitization of workers involved in handling and collection of biomedical waste;
- Workers shall be provided with adequate PPEs including three layer masks, splash proof aprons/gowns, nitrile gloves, gum boots and safety goggles;
- Use dedicated vehicle to collect COVID-19 ward waste. It is not necessary to place separate label on such vehicles;
- Vehicle should be sanitized with sodium hypochlorite or any appropriate chemical disinfectant after every trip.
- COVID-19 waste should be disposed-off immediately upon receipt at facility.
- In case it is required to treat and dispose more quantity of biomedical waste generated from
- COVID-19 treatment, CBWTF may operate their facilities for extra hours, by giving information to SPCBs/PCCs.
- Operator of CBWTF shall maintain separate record for collection, treatment and disposal of COVID-19 waste.
- Do not allow any worker showing symptoms of illness to work at the facility. May provide adequate leave to such workers and by protecting their salary.

#### E) Duties of SPCBs/PCCs



- Shall maintain records of COVID-19 treatment wards / quarantine centers / quarantines homes in respective States.
- Ensure proper collection and disposal of biomedical waste as per BMW Rules, 2016 and SoPs given in this guidance document;
- Allow CBWTFs to operate for extra hours as per requirement;
- May not insist on authorisation of quarantine camps as such facilities does not qualify as health facilities. However, may allow CBWTFs to collect biomedical waste as and when required;

- In case of States not having CBWTFs as well as rural or remote areas, not having access to
- CBWTFs, the existing captive facilities of any hospital may be identified for disposal of COVID-19 waste as per provisions under BMWM Rules, 2016 and these guidelines.
- Coordinate with CBWTFs and ULBs in establishing adequate collection and disposal of COVID-19 waste.
- In case of generation of large volume of yellow color coded (incinerable) COVID-19 waste, permit HW incinerators at existing TSDFs to incinerate the same by ensuring separate arrangement for handling and waste feeding.

#### F) Duties of Urban Local Bodies



- Information on each Quarantine Camps/ Quarantine Homes/ Home-Care should be available with local administration and provide updated list to SPCBs from time to time;
- In case of quarantine camps, ensure that biomedical waste is collected directly by CBWTFs identified by ULB. Waste from quarantine camps to be lifted by CBWTFs on call basis as and when the biomedical waste gets generated. Provide contact details of CBWTF operator at Quarantine Camps;
- Provide necessary support and security including authorisation to staff of CBWTFs;
- ULB shall engage CBWTF operator for ultimate disposal of biomedical waste collected from
- Quarantine home/home care or waste deposition centers or from door steps as may be required depending on local situation; ULB shall make agreement with CBWTF in this regard.
- ULBs envisage following options to facilitate safe collection and disposal of biomedical waste from quarantined homes/Home care



- Provide yellow colored bags (designated for BMW) to the persons responsible for operating Quarantine Camp or home-care. If required, such bags may be provided through CBWTF.
- ULBs shall ensure the following in engaging authorized waste collectors at door-steps or at waste deposition centers;
- Establish common waste deposition centers (as stipulated under SWM Rules, 2016) for receiving / collection of biomedical waste. For this purpose, existing Dhalaos, if any, may be converted suitably.
- The general solid waste collected from quarantine homes or home care shall be disposed off, as per SWM Rules 2016.
- Services of Common Biomedical Waste Treatment & Disposal Facilities (CBWTFs) and staff associated with CBWTFs for collection, transportation, treatment and disposal of biomedical waste generated from hospitals including COVID-19 isolation wards, Quarantine Camps, etc. may be considered an essential service as part of health infrastructure.
- Facilitate smooth operations of CBWTFs.



## SOP-12: Handling of Bio Medical Waste

## Handling of Bio Medical Waste received from the dispensaries of Rural Development and Panchayat Department



Bio Medical Waste generated by the dispensaries of Rural development and Panchayats Department will come to the nearest CHC of the Health and Family Welfare Department, properly packed as per protocol.



The concerned CHC will issue a receipt to the concerned Rural Dispensary on receipt of Bio Medical Waste



The CHC will ensure that the Bio Medical Waste thus received is disposed of as per PPCB guidelines through Common Bio Medical waste Treatment and Disposal Facility (CBWTF).



Any Bio Medical Waste that is not properly packed will not be received by the CHC.



As the Bio Medical Waste being generated by the Rural Dispensaries is negligible, i.e., < 500 grams. The concerned CHC will make payments to Common Bio Medical waste Treatment and Disposable Facility (CBWTF) as per agreement until and unless the waste generated in Rural Dispensaries is not negligible, i.e. >500 gms.

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## SOP-13: Isolation facility Level II

#### 14.1 Dedicated COVID Health Care Centre (DCHC- Level II Isolation facilities)



- The dedicated COVID health care are hospitals that shall offer care for all cases that have been clinically assigned as moderate.
- These should either be a full hospital or a separate block in a hospital with preferably separate entry/exit/zoning.
- Private hospitals may also be designated as COVID Dedicated Health Centres.
- Wherever a dedicated COVID health center is designated for admitting both the confirmed and the suspect cases with moderate symptoms, these hospitals must have separate areas for suspect and confirmed cases. Suspect and confirmed cases must not be allowed to mix under any circumstances.
- These hospitals would have beds with assured oxygen support.
- Every dedicated COVID health centre must necessarily be mapped to one or more dedicated COVID hospitals.
- Every DCHC must also have a dedicated Basic Life Support Ambulance (BLSA) equipped with sufficient oxygen support for ensuring safe transport of a case to a dedicated COVID Hospital if the symptoms progress from moderate to severe.

#### 14.2 Management of cases and mandatory investigation



Daily Vitals, BP, Pulse rate, Resp. rate, temperature, Spo2 is to be maintained daily at four hourly interval.



Security to be maintained by the deployment of adequate security personnel at all times.



The isolation facility, especially toilets to be cleaned thrice daily, according to infection control protocols.



Duty roster of all staff posted at isolation facility to be displayed at the entrance of the facility.





Balance and nutritious diet to be provided all patients.



Infection prevention and control is practiced and good hygiene is maintained.



Pharmacy and Lab services are available around the clock.



Ambulance facility is available at the facility for shifting the patients in case of emergency; the patient is stabilized and referred to higher level as per protocol.



Mandatory Investigation for Moderate COVID-19 patients admitted in Level-II Isolation Facilities to be done through:

- CRP (Quantitative)
- D-Dimer
- LDH

Other investigations:-

- If possible Serum Ferritin
- In case of suspicion of Cardiac disease: BNP Level and Trop-T.

# 14.3 Referral protocol for COVID-19 patients from Dedicated COVID-19 Health Centre (DCHC) to Dedicated COVID Hospital (DCH) (Level II to Level III)



Criteria of referral:-

- If SpO2<90% on room air</li>
- If there are signs of respiratory distress, Respiratory Rate>30 Use of accessory muscles of respiration/Abdominal paradox
- Pulse Rate > 120/min, weak
- Blood Pressure < 90/60 mm/Hg
- Decrease in urine output.(<150 ml. in 6 hours)</li>
- Patient is confused/drowsv
- Persistent high grade temperature.
- Neutrophil/Lymphocyte > 3.5
- In case of high risk patient, patient can be shifted to Level-III based upon clinical judgment after expert opinion

However, the referral team may take the decision for referral based on:-

- Their own clinical judgment
- The facilities available at their own institute
- The time to be taken for patient transport to the referred hospital





The referral form should be signed by any two of the following:

- SMO in charge of the facility.
- Anaesthetist
- Medical Specialist/ Chest and T.B. Specialist
- DMC (Deputy Medical Commissioner)
- Doctor on duty



The complete record of investigations should be attached with the referral form and patient details should be uploaded on the IT Portal.



#### Transportation:

- To be provided by the District Administration
- Patient to be accompanied by trained paramedical staff in the Ambulance
- Oxygen support including Ambu Bag/ Bains circuit to be made available in the Ambulance
- Emergency tray including resuscitation equipment to be made available in the Ambulance
- Ambulance to be sanitized after every trip

# 14.4 Referral protocol from COVID Care Centre (CCC) to Dedicated COVID Health Centre (DCHC) Level I to Level II)



If the patient complains of difficulty in breathing or other symptoms, the patient should be assessed by doctor on duty to decide regarding referral:-

- If SpO2<94%, on room air
- If Respiratory Rate>24/min
- If Pulse Rate>100/min
- If the patient is not alert
- If any high risk factor is present



Before referring the patient, prior information should be sent to the Level-II facility where patient is being referred.



The complete record of investigations should be attached with the referral form and patient should be uploaded on the IT Portal.





#### Transportation:

- To be provided by the District Administration
- Patient to be accompanied by trained paramedical staff in the Ambulance
- Oxygen support including Ambu Bag/ Bains circuit to be made available in the Ambulance
- Emergency tray including resuscitation equipment to be made available in the Ambulance
- Ambulance to be sanitized after every trip

Referral form to be filled by the doctor present on duty.

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# SOP-14: Guidelines for Containment zone, buffer zone and clusters

#### **Definitions:**



Containment zone: Containment zone may be defined as an area around the epicentre of cases in a village/ward based on the number (15 or more). It can also be a small group of adjacent villages or wards. The physical perimeter of the containment zone should be defined clearly in terms of a) access to area b) size of the area.



Buffer zone: Buffer zone may be defined as a concentric area around the containment area where control activities need to be carried out. It is defined for the purpose of intensive house to house surveillance and contact tracing. The radius of the buffer zone may be up to kilometre.

#### Permitted activities:



The only activities allowed are as per the guidelines issued by the department of Home affairs and Justice, Government of Punjab during lockdown.

However, in containment zone there will be a physical perimeter and movement pertaining to the medical emergency and essential services shall be allowed in containment zone.

#### Health activities in these zones:



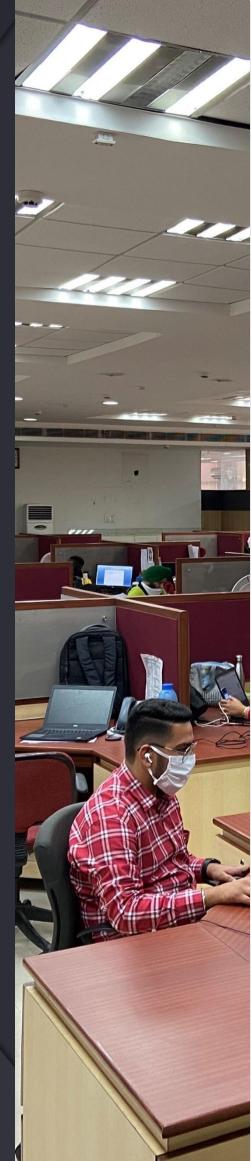
In all these zones, health department would carry out house-tohouse surveillance and contact tracing. All positive cases shall be shifted to health facilities as per health protocols. Special health focus will be on vulnerable and high risk population.

#### Exit strategy for containment zone:



Continuous house-to-house surveillance and contact tracing would be carried out. Containment period would be of minimum 14 days. If in the last one week, there is not more than 1 new case, containment zone shall be opened. Otherwise it would be extended for one week at a time.

Leveraging Digital Technologies





# **Chapter Flow**

Introduction

**COVA** application

Contact tracing, Geo-fencing, call support and COVA chat

Real time dashboard, traveller and labour registration, and issuance of e-passes

COVID-19 Web portals and daily monitoring by DGR&PG

Procurement portal with PMB, patient monitoring and inventory management

Implementation of e-office

# Highlights





**5.5 million** users registered on COVA



**8 Lakh+** labourers registered on COVA App



**1.99 lakh+** citizens reported home quarantine status





**20,000+** COVID dashboard views recorded per day



2367+ fund transactions have been recorded for the CM Relief Fund



**6.2 Lakh+** selfgenerated curfew epasses were issued



**17,174** interstate travellers have been reported



**70+** consultations have been recorded through telemedicine helpline per day

# Leveraging Digital Technologies



#### 1. Introduction

Around the world, the COVID-19 pandemic has emphasized the constructive and crucial role digital technologies can play in responding to the crisis. Amidst the pandemic, technology solutions have become increasingly essential to everyday functioning, and have enabled a range of operations to continue remotely. For instance, digital communication channels have helped provide reliable information on global and national COVID-19 developments. Dashboards and platforms can provide up-to-date statistics and useful data to the public, thereby increasing transparency. Digital payment gateways, video-conference solutions and e-learning platforms have been especially helpful in these difficult times. Furthermore, new applications and services designed especially for the pandemic have also been instrumental in helping to mitigate hardships of the citizens.

The Government of Punjab was prompt to realize that making use of innovative and cutting edge technology was key to managing the crisis. Prior to the launch of the national application for COVID-19, Aarogya Setu, the state government had already designed and launched its own mobile application: the Corona Virus Alert (COVA) mobile application. The app was developed in consultation with the Department of Governance Reforms and Public Grievances and the Department of Health and Family Welfare.

The following chapter provides further details on the COVA application, as well as other digital interventions put forth during this time, including the COVID-19 dashboard featuring real-time data, telemedicine helpline, e-pass application, e-PMB portal, migrant registration portal etc., which can also be accessed by the citizens through web.

25 Feb'20	06 Mar'20	09 Mar'20	03 Apr'20	19 Apr'20
development of	COVA App designed and ready for launch	app by CS	lse of COVA App xtended to order rocery	Capacity building workshop organised by DGR for geospatial awareness

#### Box 1: Mission Fateh

With the orchestrated relaxation of the lockdown norms, the state envisaged the exigency to restore the spirit of resilience and discipline to collectively combat against the virus. The word Fateh literally translates to 'conquer'. True to its meaning, the *Fateh* is against an invisible enemy i.e., the novel corona virus. To fight COVID-19, immense discipline, civic-mindedness, concern within the family, with the neighbours and with the underprivileged is paramount.

Mission Fateh indoctrinates the spiritedness and sensitizes the public to imbibe constant vigilance through the motivational visual tracks, featuring eminent dignitaries promoting the core characteristics of the campaign. The drive also enlists diverse promotional pursuits to be demonstrated by various State Departments.

CMC Ludhiana

The campaign was launched on the COVA application, keeping the social distancing norms in purview and was also promoted across an assortment of social networks to reach the larger audience in a prompt manner.

Presence of such an extensive network has created an added advantage to nudge the citizens by posting digital photographs of government officials, frontline workers and general public abiding the health and safety guidelines regularly issued by the government. It also contributed to creation of a sustainable and interactive virtual ecosystem that nurtures the spirit of solidarity and integrity within the state.



#### 24 April'20 18 May'20 14 June'20 07 July'20 16 July'20 Month-long Government ITIs Launch of E-Sanjeevani E-registration through collaborative Mission Fateh (women) organize application launched COVA App made campaign 'march on foot' COVA and training telemedicine mandatory for inbound launched imparted to doctors venture between awareness campaign travellers regarding its usage Cleveland clinic and

#### 2. COVA Punjab

Given the multitude of parallels starkly impacted due to the global pandemic, the State government of Punjab deliberated with the Department of Governance Reforms and Public Grievances and the Department of Health on viable solutions to be brought into effect forthwith. The Departments synergised to configure a multi-utility application COVA, that provides cognizance on travel and preventive care advisories. Further, it renders geographic information corresponding to the nearest hospital and is also equipped with a 'checkyour-health status' feature.

The versatile application was launched on 9<sup>th</sup> March, 2020 by the Hon'ble CM Captain Amarinder Singh. The GoP, with the support of the DoGR & PG has integrated several unique attributes to the COVA App to make it as user-friendly and citizen centric as possible.

The success of the application can be attributed to the methodical integration of features that empower the user and the state to attune to the current dynamic circumstances. In the light of the topical affairs where social distancing and home quarantine is imperative, with user's agreement, COVA tracks the movement of the citizens and captures the location via GPS and close contacts via Bluetooth. This data is utilized for monitoring and corroborating the location status of the users. Additionally, the data collected is securely saved on the handset for 14 days and in case the person suspects/tests positive for COVID-19, the data is pulled on server. On the server, it resides in a secured environment and various analyses are performed regularly.

The application has gained popularity for its extensive usage and the GoP is currently supporting eleven State Governments in integrating the application for usage.

## **Application Features**

#### Contact tracing



Contact tracing is the process of identifying, assessing and managing people who have been exposed to a disease to prevent onward transmission

#### Geo-fencing



Geo-fencing is a location-based service in which an app uses GPS, RFID, Wi-Fi or cellular data to trigger a pre-programmed action when a mobile device or RFID enters or exits a virtual boundary setup around a geographical location.

#### Issuance of e-passes



An e-pass is an indicator that validates the permission for essential frontline workers to travel owing to their nature of work

#### Chat-BOT

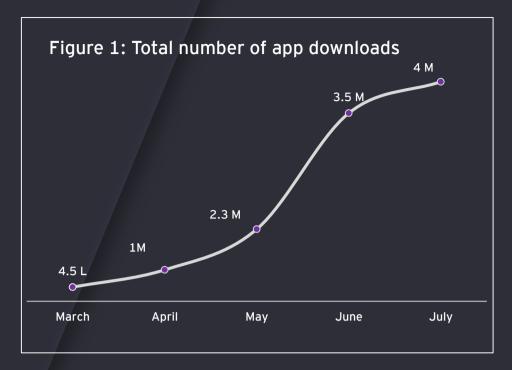


An interactive chat BOT designed to simulate online conversation with human users over the Internet has been integrated, in lieu of providing direct contact with a human agent

# Over 4 million downloads

# Over 4.5 Lakh registered users

# Over 8 state of the art features



## **Application Features**

#### Healthcare connect



Virtual health care encompasses the different modes adopted by healthcare workers to remotely interact with patients

#### Online Labour registration



A virtual portal designed specifically for labourers/daily wage workers currently seeking employment

#### Traveller registration



A registration portal designed to provide travel permits for interstate travel. Links to additional portals for hotel booking for interstate/foreign travellers and train booking facility for interstate travellers is also available on COVA

#### Realtime dashboard



A dashboard containing visualisations that are automatically updated, tailored to provide the most relevant operational reporting data

#### 2.1 Contact tracing



Contact tracing is a key public health intervention that plays a major role in efforts to stem the spread of SARS-CoV-2. As was the case in Punjab, traditional methods of contact tracing can be helpfully supplemented with digital modes, such as Bluetooth and GPS based contract tracing. These technologies are able to make the entire process faster and more reliable one, and timing is of the essence in such scenarios. Thus, officials were promptly and adequately trained to this end, and the state government also reinforced existing teams by seeking interdepartmental staff support to revamp testing and safety protocols.

As the name suggests, the process of contact tracing attempts to map all contacts of a suspected or confirmed case, and quarantine them immediately so as to limit further exposure. For officials, a comprehensive list of these entities is generated on the COVA application and are tagged against the patient database. Further, contacts are required to provide their sample as per health protocol ensuing the tracing process. It is imperative that the entities are home-quarantined for the succeeding 14-day period. Contingent on the health status of the home-quarantined individual, mapping of the data helps analyse the spread of the infection and additionally assess the primary/secondary mode of contact. In order to enable access to nonsmartphone users, the call detail records of corona virus patients is also being used for contact tracing.

There are two main ways in which the technology of the COVA app can facilitate contact tracing efforts, as highlighted below.

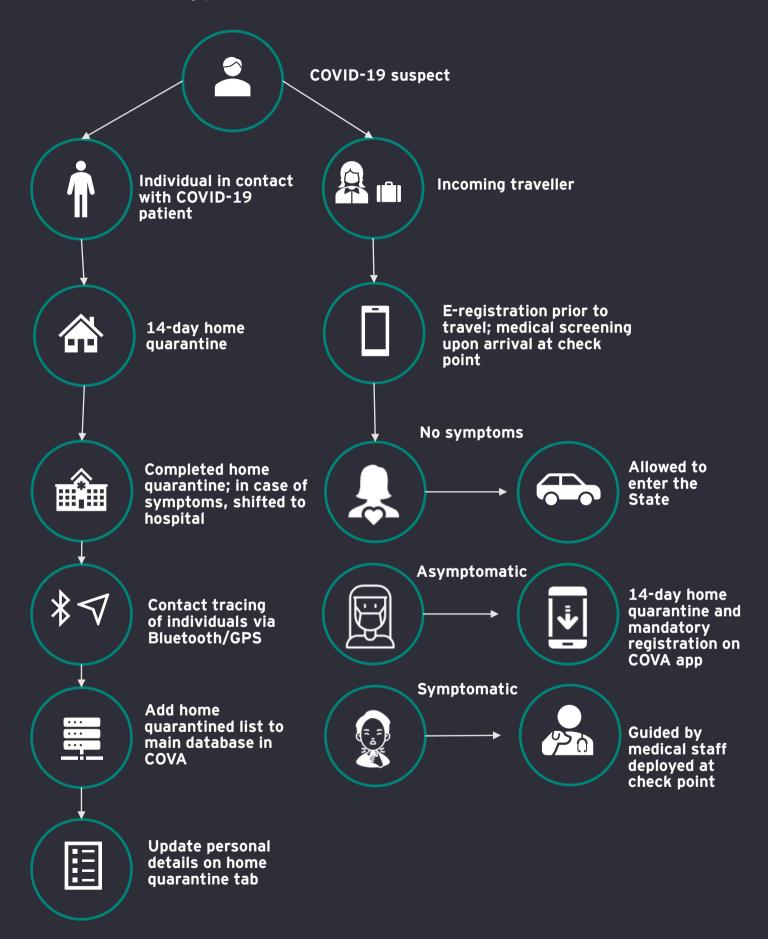
#### Bluetooth based contact tracing

Given the widespread use of mobile technology with bluetooth connectivity, the application includes an inbuilt feature of a data repository that enables user data to be stored. The data is further utilised to assist in contact tracing, provided the users have the COVA app. On the presumption that the individual tests positive, the data is transferred to a server which then assists in enabling contact tracing.

#### GPS based contact tracing

Access to the GPS location facilitates accurate location tracking. The data is made accessible to the citizens to assist them in identifying the distance from the nearest COVID-19 patient. The list of locations visited by a positive patient in last few days is also generated by the location-based contact tracing feature.

### Contact tracing process overview



Refer to home quarantine guidelines<sup>1</sup> Refer to hotel quarantine guidelines<sup>2</sup>

#### 2.2 Tracking home quarantined cases



#### Geo-fencing strategies

Drawing on the experience of countries that are effectively using technology for contact tracing, the COVA app was specifically designed to include the backend programming required to enforce a geo-fencing strategy.

Simply put, the application is pre-programmed to trigger an alert when a mobile device or RFID enters or exits a virtual boundary setup around a geographical location. As per protocol, home quarantined individuals are mandated to install COVA App and keep GPS/Bluetooth on. In case of a breach, the fence triggers an alert to the district administration, thereby successfully restricting the movement of the home quarantined individuals. This feature of the application is highly resourceful, but it requires citizens to own a functional smartphone.

#### Telecom based tracking

For non-smartphone users, the mobile number as captured on the home quarantine form is shared with Corona Virus Quarantine Alert System (CQAS) system of NDMA for location tracking. CQAS with the help of telecom operators track the movement of those numbers and raises an alert in case the individual moves out of the geofenced location. The alert is shared via e-mail/portal which in turn is passed to district field staff so they can visit such individuals and ensure that home quarantine

protocols are being followed. Overall, the state government has found that working with telecom data to receive location data of suspected/confirmed cases can be an effective method of tracking, although challenges are encountered when citizens switch their phone off, or the battery dies.

The home quarantine patient dashboard is accessible by the Department of Health from COVA Punjab portal. The Department of Health shares mobile numbers with Department of Police, Punjab for telecom companies to enable the location tracking of home quarantined citizens.

An estimated 11000 mobile numbers have been shared till the month of June for Telco based tracking/alerts. Hourly breach reports from telecom companies are shared with the Department of Health and Family Welfare, who in turn shares this information with the District Administration so that they can take necessary action.

Approximately 200 breaches have been reported on a daily basis (location movement beyond 500 meters from base location). As lockdown restrictions are relaxed and people become more complacent about spread of the virus, it is expected that more breaches will occur, and will need to be handled by the district administration.



#### 2.3 Call support

In the thick of the crisis, many citizens were anxious, unsure of what was going on, and didn't know what to expect. With a view to address their fears and concerns as well as maintaining strong communication channels, the call support tab was set up on the app.

The tab enlists various helpline numbers curtailed for different needs of the citizens, which include medical helpline-104, 112 for police assistance and COVID-19 related issues; helpline 1905 for essential supplies like medicine, groceries. It also includes district-wise helpline contacts for district specific issues.

#### 2.4 Chat BOT

The Government of Punjab has configured a chat BOT that provides information on COVID-19 on the COVA mobile app. Further, Punjab also became one of the first states to integrate ICMR Portal data with its own platform i.e., COVA. The BOT has been configured to extract data from ICMR portal on a regular frequency and upload the information on COVA. This activity helps the state to access data required for processing and further avoid data duplication and redundancy.

#### 2.5 Real time dashboard

Effective monitoring and surveillance of the spread of the virus utilising real time data is pivotal for efficient decision making. The Punjab real-time counter is a dashboard on the COVA app that reflects the number of tested and confirmed cases, number of recovered cases, number of deaths, number of cases in home guarantine and number of active cases. This dashboard helps authorities to monitor the spread of the disease. The dashboard features a geo-tagged COVID-19 Punjab Heat Map that reflects the location wise hotspots and cases. It captures month wise data on infected, home quarantined, etc. across all the districts of Punjab. By accessing data through the GPS location of the mobile devices, COVA enables the user to detect nearby COVID-19 patients and hotspots.

#### Box 2: Facilitating supply of groceries and essentials



During the lockdown, access to essentials was restricted and often difficult. To reduce the citizens' visits outside their homes to procure essential goods such as groceries, the state government has identified local vendors as per the person's location and option to order online or via call has been provided. The COVA App enables users to request for delivery of groceries and other essentials through local vendors.

The specialised local delivery feature of the application has been developed with the support of Uengage Services Private Limited and enables the registration of the local supply chain, in addition to providing monitoring authority to the District Administration to accept/reject a vendor on the basis of citizen complaints. The effective functioning of this feature is enabled by the selection of location by the citizen, basis which the app populates the near-by vendor details. The citizen can place an order on the app itself and pay after the delivery is complete.



#### 2.6 Traveler registration

Due to the lockdown, many migrant labourers sought to return to their respective hometowns and be with their families. The inward movement of individuals by all means of transport required the installation of COVA app and a mandatory 14-day quarantine. In order to effectively support the inbound and outbound transportation, the DOGR & PG team developed a COVA app-link that facilitated train bookings for migrants. Basis this data, the DCs planned the allocation of buses and trains for travel of the migrant population.

Individuals who did not own a smartphone were required to provide their contact details for CPUA under NDMA, where geotagging and telecom tracking could help in monitoring patients and users without a smartphone also. To support daily wage labourers, the GoP registered labourers online to access their location for delivery of food and essential services. Additionally, the app records details including individual and family photograph, family details, bank details and occupation details.

The lockdown created an urgent need for regulation of incoming NRIs. In order to streamline this complex process, the DoGR & PG developed a portal for registration of incoming travellers which would register the individuals who require government support for travelling in order to provide maximum support to the incoming travellers.

#### 2.7 Labourer registration

In addition, the lockdown was particularly difficult for certain vulnerable populations, including daily wage workers and labourers whose sole source of income had been cut off, and had little savings to depend upon. Anxieties about the virus and pandemic itself were also heightened, and many required government assistance to see them through this difficult period of time.

With this in mind, the Government of Punjab directed the configuration of a labourer registration tab on the COVA app and created awareness for both the employers seeking labour and labourers seeking work on this attribute through virtual channels.

#### Box 3: Donation to CM relief fund



On 28th March 2020, the Government of Punjab launched a digital donation drive to contribute to provide medical assistance and relief to the underprivileged and needy. The virtual drive has also been embedded in the COVA app and across state and district departmental portals to create awareness and reach a larger audience. In order to ease the process for donors, payment can be made through various modes including credit card, debit card, net banking and UPI. Considering the extensive usage of mobile wallets, payment gateways including Paytm and BHIM have been embedded to process digital wallet payments as well.

#### Box 4: Dynamic daily monitoring by DoGR&PG

A team of Governance Fellows at DoGR&PG prepares the Daily Status Report on Punjab's response to the COVID-19 pandemic. This report is shared with all policymakers, expert groups, and State Advisory Council members



Comparison of Punjab with other states, the world and Indian average on aspects such as total confirmed cases, total cured, total deaths, recovery rate, case fatality rate, doubling rate, testing per million. Data for these is collected from sources such as COVID-19 India dashboard, worldometer and Health Department, Punjab.



District-wise data in Punjab on aspects such as total confirmed cases, new cases in the last seven days, active cases, recovered cases, total deaths, new deaths in the last seven days, recovery rate, case fatality rate, doubling rate, patients admitted in different levels of health facilities, total samples tested, positive cases hit rates and passenger movement within districts in Punjab.



Daily trends in Punjab which includes daily testing, samples collected, sample results awaited in labs, testing by facility, and daily positivity rate.



Statistics of Helplines in Punjab for which data is collected from Police Department, State COVID Control Room, DoGR&PG and Health Department.



Analysis of COVID-19 deaths in Punjab for which data is collected from IDSP and the portal built by the Health Department (COVID19punjab.in).



Analysis of COVID-19 positive cases in Punjab for which data is collected from ICMR RT-PCR Testing Portal.

#### 2.8 Issuance of e-passes



While majority of the country was under complete lockdown, essential workers and individuals requiring emergency services were permitted to procure curfew e-passes. Curfew passes were made available on a web based platform that could be accessed through a smartphone or computer. The details entered in the pass were scrutinised and sent either to the District Police head office (CP/SSP) or to the District Administration head. The nodal officer reviewed each application and approved/rejected the issuance of the e-pass basis the details shared.

To enable ease of travel during the lockdown period, a feature to apply for self-generated e-pass on the COVA app has been integrated. The e-pass mandates the individual to keep his/her GPS and Bluetooth active during the travel, thereby enabling the application to track the individual's movement and alert the administration in case the traveller reports as COVID positive or contacts a suspect/positive person.

#### 2.9 Healthcare connect



E-Sanjeevani is a web-based, comprehensive telemedicine solution. This intervention has been conceptualised by the DoGR & PG and has been implemented with the support of the Department of Health and Family Welfare, Punjab. The e-Sanjeevani OPD portal has been developed by C-DAC, Mohali on the basis of telemedicine guidelines issued by the Ministry of Health and Family Welfare. The intervention aims to extend the reach of specialized healthcare services to masses in rural areas and in isolated communities. It is currently operational in twelve states all over the country.



#### e-Sanjeevani OPD process overview

Registration and token generation	Verify mobile number using OTP	Fill in Patient registration form	Request token	Upload health records	Receive patient ID and token
Login	Wait for SMS notification to login	Patient ID is generated	Login with Patient ID		
Waiting room	Enter waiting room	CALL NOW button is activated in 15 minutes	Initiate the call		
Consultation	Doctor shall show up	Consult doctor	Get instant e- prescription		

#### 2.10 Comparative overview of COVID-19 software apps

In the weeks and months following the outbreak of COVID-19 in India, various innovative mobile applications were developed to prevent spread of the virus in its tracks. COVA app was one of the first in India, launched on 9th March 2020, with geotagging and geofencing features. The app was developed with a highly sophisticated backend

Infrastructure, such that is able to accommodate for a range of diverse functions within the same application.

Since March, 11 other states have requested Punjab for backend access to the app and its features. The following table showcases certain features which are exclusive to the COVA app.

	Feature / Functionality	COVA App	Aarogya Setu
1	Dashboard	~	~
2	Check Health Status	<b>✓</b>	<b>~</b>
3	Global Stats	<b>~</b>	X
4	Chatbot	~	<b>~</b>
5	Connect to a Doctor (over call)	<b>~</b>	×
6	Search Foreign Travellers	<b>~</b>	×
7	COVID Hospitals	<b>~</b>	X
8	Report Mass Gathering	<b>~</b>	X
9	Request Grocery/Essentials	<b>~</b>	X
10	Become a Volunteer	<b>~</b>	×
11	Government Orders	<b>~</b>	×
12	Corona Awareness	<b>~</b>	<b>~</b>
13	Traveling Instructions	<b>✓</b>	×
14	Register as Labourer	<b>/</b>	×
15	Ui Path RPA BOT	<b>/</b>	×
16	Train Booking	<b>/</b>	×
17	Geo-fencing	<b>~</b>	X
18	FAQ	<b>~</b>	×
19	Call Support	<b>~</b>	×
20	Multilingual	Three languages	Twelve languages
21	Migrant Registration	<b>~</b>	×
22	Traveller registration	~	×
23	Quarantine Facility Booking	<b>~</b>	<b>~</b>
24	Self Quarantine Inspection	<b>~</b>	×
25	Mark Home Location	<b>~</b>	X

#### 3. COVID-19 web portals

The unanticipated emergence of COVID-19 disrupted and altered the way of living. The 'new normal' as they call it has drastically changed day-to-day operations and interactions. The dynamic State of Punjab was expeditious in adapting to the change and unconditionally focused on creating a sustainable ecosystem for the welfare and safety of its citizens. Geared with the latest technology and digital armory, the state bravely marched together to combat with the novel virus.

#### 3.1 Live analytics and dashboard

With the sudden spike in the number of cases, effective surveillance of data was essential. In accordance to this, the DoGR&PG in collaboration with a start-up "DronaMaps", designed a real-time interactive dashboard for COVID response in order to have a consolidated view of the resources and cases. The dashboard features a geo-tagged COVID-19 Punjab Heat Map, that reflects the location wise hotspots and cases. It captures month wise data on infected, home quarantined patients etc. across all the districts of Punjab. This feature enables the user to detect a nearby patient and COVID hotspots through the geographic location details captured by accessing the GPS location of the mobile device.

The COVID-19 dashboard tracks and maintains patient master data on relevant dates including admission and discharge, test results and tracks patient movement using live GPS, tower CDR and cell operator VLR data. It also provides predictive analytics basis the trend line, rate of increase and rate of increment. Further, it indicates heat maps and red zones on the basis of real-time data. The dashboard features a citizen centric mobile webpage to track down location amidst red zones/quarantine zones/ 144CRPC/curfew through Progressive Web-Apps (PWA), mobile websites and QR codes.



In order to retain the transparent governing mechanism and help the citizens feel connected, the GoP lost no time in designing web-portals that can be accessed by the citizens. It also launched several virtual campaigns to educate the public on the current affairs and precautions to be adopted by them. It also developed a streamlined process for generating regular awareness reports and conduct a smooth and efficient procurement process. These interventions are detailed in the following sub-sections.

#### 3.2 Digital media integration

At a time where virtual communication has become the safest method of communication, the GoP dedicated a specialized cell for handling the media communication. This was enabled through virtual campaigns initiated by CMO, Punjab through Twitter and digital marketing campaign which proved to be highly effective to educate and enlighten the public regarding COVID-19. The campaign utilized information graphics to disseminate information on the innovative interventions implemented by the GoP during the crisis which included:

- COVA app awareness
- Coronavirus prevention
- E-Sanjeevani OPD awareness
- Stay Home and Stay Safe campaign
- Work from Home campaign
- Important measures to take during lockdown campaign
- Punjab State Agricultural Marketing Board wheat procurement during COVID-19 campaign
- Tele Counselling Service campaign for mental health awareness
- Sewa Kendra banners for resumption of their services
- Sakhi- for women in need of medical, legal and psychological aid during lockdown.

In addition to this, a team of Governance Fellows worked with a group of volunteers on COVID-19 digital marketing campaign (content creation and design) to create social media banners in English, Hindi and Punjabi. The categories of banners made are as follows:

- Facts and information on COVID 19
- Myth Busting
- Awareness about Punjab Government Helplines for COVID-19
- · Gender Based Campaign
- Mental health awareness Campaign (for helpline 1800 180 4104)

#### 3.3 Punjab Mandi Board application





A farmer's wheat is cleaned at Malikpur Dana Mandi, Pathankot

In collaboration with OLA, the Punjab Mandi Board (PMB) mobile application was developed in order to make the Rabi Management System (2020-21) a paperless, virtual operation that provides real time information on procurement to farmers.

The unique centralized automated, logic-based technology platform allowed for the issuance of e-Passes to the 17 lakh odd farmers in the state, along with online management and regulation of all trolleys and vehicular movement in the Mandis.

Furthermore, the mobile application empowered arthiyas and the general public with the aspects of online licensing and availability of actual rates of fruits and vegetables in "Apni Mandis" across all districts of Punjab. This unique intervention aims to enhance the transparency in the procurement process that can be monitored seamlessly on a real-time basis.

Additionally, the conversion of procurement process into paperless operations would prevent delay in the procurement process, curb evasion of grains and reduce market fees.

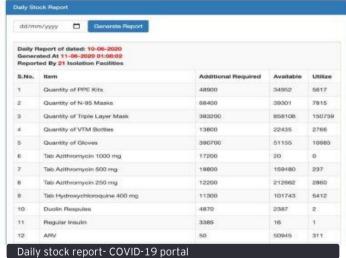
In order to enable a smooth procurement process, the following steps were observed:

- The market committee inputs the number of passes to be issued for the day, basis the previous year's trend capacity. All passes for the day are generated at once in a single attempt as per the ratio calculated on the capacity of the arthiyas, who sells the passes to the farmer
- The passes were issued in the sets of five, one pass per trolley load. In mid-May, the factor was changed to two passes per arthiya to cover more number of arthiyas
- The allotted passes are deducted from the balance capacity of the arthiyas
- Net gain/loss factor is calculated which is adjusted in the next day's allotment
- The arthiya enters the farmer details basis which the OLA app begins to track the farmer trolley on the arrival due date, thereby preventing overcrowding and ensuring further safety of all those involved, given physical distancing recommendations.



The COVID-19 Portal allows the field staff to manage the patient data. The portal enables addition of patient details in case the individual is detected as COVID positive. The field staff is also responsible for regularly updating the change in status of the patient's health. The clinical data of the patient for monitoring the health parameters is also being integrated in the portal. Further, the ICMR Portal of Government of India has also been integrated with COVA Portal, which has helped the state to access the details of the test result from the labs directly on the portal thereby improving the efficiency of information gathering. The latitude/longitude of all COVID-19 suspects/patients is stored in COVA Portal. This information is used to trace and alert the citizen about in case of proximity to the nearest COVID-19 suspect/patient. Additionally, this feature also indicates the location of nearest hotspot.





The inventory of masks, PPE kits, VTM bottles, gloves, oxygen cylinders and other critical material in hospitals is also managed online in order to monitor effecient utilisation. Thus, it enables to procure required inventory in advance, in case the available inventory reaches its threshold limit.

The availability of beds (ICU/HDU) is managed facility wise. This helps in allocation of a bed at a facility to a particular patient and helps in ensuring that proper arrangements are available to manage any immediate requirements by the nearby districts.

#### 3.6 Implementation of e-office



Punjab was the first state to roll out the e-office facility in the country. The e-office has been designed and developed by National Informatics Centre, Ministry of Electronics & Information Technology (MEITY). It is a cloud enabled software that can be deployed/hosted in any data centre or in any cloud identified by the organization. The NIC team helps the organization in setting up of e-office environment, master data preparation and initial rollout.

The GoP began working on the development of eoffice during the month of November, 2019. In the first phase, it was initiated in the Administrative Departments of GoP in Civil Secretariat-1, Civil Secretariat-2, and all Deputy Commissioners' offices. In the 2nd phase it was implemented in all the Directorates/ boards/corporations and other offices of GoP from 1st January 2020.

When the lockdown was imposed in March 2020, the e-office had been successfully implemented in all Administrative Departments, DC offices and 35 Directorates. The flexible working feature of the e-office enabled the department officials to work with hassle free. The e-office was also used to process the files for approval from the Hon'ble CM. Further, virtual onboarding of other offices on e-office, including Webex sessions was enabled. More than 7000 new employees were added to the e-office during lockdown and were immediately granted e-office access.

The components of e-office are:

- E-file this feature helps in governance processes around creation of files, notes in the file, decision at various levels, and finally issuing decisions as letters and notifications.
- KMS enables users to create and manage electronic documents that can be viewed, searched and shared. It is also capable of keeping track of the different versions modified by different users.
- CAMS collaboration and messaging services to help users to communicate effectively and share information and ideas in real time.
- E-Leave simple intuitive workflow based system to apply for leave online, track the status of applied leave, details of leaves taken and balance.
- E-Tour system that facilitates the efficient management of employee tour programs, from the time of applying for the tour to the final settlement of bills.
- Sparrow an online system based on the comprehensive performance appraisal dossier that is maintained for each member of the service.
- Personnel Information Management System(PIMS) - system for maintaining the details of an employee.

This system allowed officials to continue working remotely, thereby reducing risk of exposure to COVID-19.

Interdepartmental Convergence





## Chapter Flow

- Introduction
- Department of Industries
- Department of Rural Development
- Department of Cooperation
- Department of Water Resources
- Department of Water Supply & Sanitation
- Department of Local Government
- Department of Animal Husbandry
- Department of Education
- Department of Employment
- Department of Labour
- Department of State Transport
- Department of Jail
- Punjab Bhawan (Delhi)
- Punjab State Power Corporation Limited

## Highlights





INR 50 Crore worth of work executed under Drainage Administration by the Department of Water Resources



**8 Lakh** rural households sanitised by the Department of Water Supply & Sanitation



INR 50,000 allotted to Panchayats by the Department of Rural Development for procurement of essentials



19,000 + students participated in EDUSAT Punjab YouTube channel within a short span of its launch



**15.78 Lakh** workers assisted with resuming their work after Lockdown 2.0 by the Department of Industries



**2.50 Lakh** migrants assisted with transport facilities by the Department of Transport



**30,000+** Swachhta Warriors deputed for management of sanitation services by the Department of Local Government



**30%** of total wheat produced in the State procured by the Department of Cooperation

## Inter-departmental convergence



#### 1. Introduction

While the entire world grapples with the aftermath of the crisis, one element unites us: the uncertainty of what lies ahead. A crisis of this scale demands a concerted and coordinated response from all stakeholders, especially as a widespread outbreak of COVID-19 cases will result in enormous health, economic, environmental and social challenges. Given the potential for further human loss, and the farreaching economic effects of the pandemic, it became apparent to policymakers and officials that everybody had a meaningful role to play in limiting damage causes.

In Punjab, officials from nearly every department of the government stepped up and assumed responsibility. Given that containing the spread of the virus throughout the state was the first priority, many engaged in promoting IEC campaigns about the virus, distributing masks and educating citizens about maintaining hygiene. Others focused on helping to build the human and physical capital required and procuring essential healthcare supplies, coordinating with the central government, civil society volunteers, private sector donors and others.

During the lockdown, many officials worked tirelessly towards solving a wide range of logistical problems encountered by citizens, while others considered long-term plans towards economic revival, and put procedures and protocols in place for the "new normal".

Working together, across traditional departmental mandates and in the heat of a life-threatening crisis, instilled a spirit of solidarity, as well as reinvigorated a deeply felt commitment to service amongst officials. As the pandemic continues to unfold, this spirit and commitment will prove to be an invaluable asset in halting the transmission of COVID-19, while simultaneously working to revive the economy.

This chapter highlights the efforts and activities of 12 frontline departments of Government of Punjab, whose officers played a pivotal role in keeping Punjab safe, and limiting disruption to daily activities during the initial phase of the pandemic.

#### 2. Department of Industries



The State of Punjab is well known for the enterprising nature and industrious spirit of its citizens. The access to robust infrastructure, excellent connectivity, premium educational institutions and conducive Government policy fuel the unlimited business potential of the State. Punjab leads several industrial sectors that include cycle and cycle component manufacturing, cotton and blended yarn, tractor and agriculture machinery, to name a few. The diverse governance and fiscal policy initiatives oriented towards building an innovative ecosystem for startups, MSMEs, large and thrust unit sectors attribute to the success of the State.

The rapid outbreak of COVID-19 disrupted the operations of all sectors and majorly impacted the socio-economic sector due to the sudden halt in the industrial activities. This created a severe loss of income for daily wage workers, labourers and also escalated the expenses for healthcare and governance in order to contain the spread of the infection.

The Department of Industries and Commerce (Dol&C) proactively responded to the need of the hour through encouraging the participation of the various industries in manufacturing of masks, safety gear, PPE kits and also facilitated the transport of migrant labour seeking employment.

## INR 300 Crore+

Worth of orders secured from HLL

100%

Support for operationalisation of industries

140+

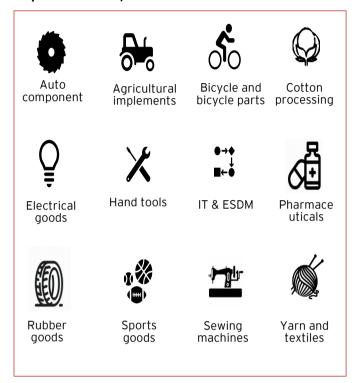
PPE kit manufacturers have been approved by SITRA and DRDO

#### 2.1 Economic revival of Punjab

The State economy of Punjab increased by 5.33% in 2019-20, owing to the availability of promising harvest, educational investments and robust infrastructure.

The pandemic impacted several sectors and disrupted the operations of the demand and supply chain, which severely impacted the consumer, industrial and agriculture based industries.

#### Key sectors impacted





#### Advantage Punjab



Given the combined magnitude of impact of COVID-19 on various industrial sectors, the supply side impact led to the shutting down of several factories. This resulted in delay of manufacturing of products related to the automobile, pharmaceutical, electronic and chemical industry.

In order to address this situation, the Hon'ble CM Captain Amarinder Singh interacted with the industry stalwarts vis-à-vis virtual platforms regarding the measures and decisions to be taken during the crisis. Basis these discussions, the Department played a pivotal role in the implementation of efficient measures in coordination with other departments to ensure the smooth operation of essential industries, including production of N-95 masks, safety gear through 50% capacity utilization of the existing resources.

15.78 Lakh+

Workers resumed operations post lockdown

2.34 Lakh+

Industrial units commenced operations post lockdown

335+

Fresh applications received for investments and upgradation

#### Seeking opportunities amidst challenges

Regular operations came to a stand still due to the lockdown. In order to tackle the crisis in shortage of masks and PPE kits after the ban on the import of products from China, the textile industry took a lead under the able Chairmanship of Ms. Vini Mahajan to meet the rising demands. A WhatsApp group created by the Department, which now has 150 members, became a hub of sharing innovative ideas, technical know-how and raw/input material and delivered the required output.

The GoP lauded this entrepreneurial spirit and cooperation exhibited by the Department in the manufacturing of PPE kits, which were successfully tested and certified by SITRA, Coimbatore. A record number of samples from across 59 industries including 56 from Ludhiana were approved by the testing authority. The national supplier for health equipment, HLL also placed orders worth INR 302 Crore, leading to the issuance of export of PPE kits to boost the Aatma Nirbhar Bharat Abhiyan scheme.

### 5.5 Lakh+

Daily manufacturing capacity of PPE kits



#### Pathbreaking measures to bring relief to industries



Under the visionary leadership of the Hon'ble CM Captain Amarinder Singh, the GoP announced pathbreaking relief measures for the industrialists of Punjab, to provide support during the lockdown crisis.

The Minister for Industries and Commerce, Sundar Sham Arora announced that due to addressing the persistent demand of plot holders and to create a congenial atmosphere for the industry, the State Government permitted allottees of industrial plots up to 15% of the total coverage area in the industrial buildings for the housing of staff/workers in all Industrial Focal Points developed by the PSIEC across Ludhiana, Jalandhar, Amritsar, Mohali, Bathinda, Pathankot etc., without payment of conversion fees. The PSIEC also permitted extension to defaulter allotees of different industrial focal points for the commencement of production.

Additionally, defaulter industrial plot holders who submitted their building plan with the concerned authorities up to March, 2020 were permitted an extension in the time period for commencement of production till September, 2021. Furthermore, the extension of validity period of the Amnesty Scheme was applicable to the recovery of enhanced land cost by 3 months up to the end of August. This period shall be considered as 'Zero period' in order to recover land costs. The decision was welcomed and appreciated by the Chamber of Commerce and other industrial wings in the State.

#### 2.2 Unlocking Industry

During April, the GoP assured its full support to the industry and District Industrial Centres functioning under the DCs in provision of requisite approvals for reopening and issuance of curfew passes within 12 hours of application. In order to facilitate these provisions, a webinar was organised with a participation of 100+ industry stalwarts, foreign ambassadors/ diplomats, in order to interact and discuss innovative solutions to support the industry and its workers. The health and safety protocols were also extensively discussed.

Given the integral economic contribution by the industries, the GoP directed all the departments to support and facilitate reopening of the industries as per guidelines, provided that the industry workers would be given food and shelter and the coordinated approvals of the industry units to be sent to Department of Labour, Police and other concerned departments.

An online system to obtain permission to run the industries was developed for the General Managers (GMs) of District Industries Centres. The same team of GMs was responsible to monitor the operations as well. The GMs provided 24/7 assistance in implementing the measures and regulations and thereby facilitated the operationalising of 177891 industrial units with 50% capacity utilization.

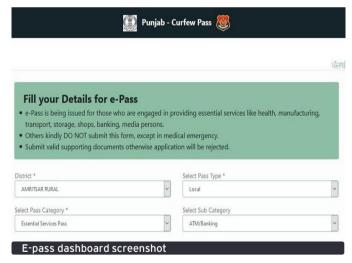


#### FUNCTIONAL INDUSTRIAL UNITS

District	Total registered units	Total Functional Units		
Ludhiana	95,202	81,812		
Amritsar	20,194	16,530		
Jalandhar	18,170	18,050		
SAS Nagar	15,499	14,584		
Sangrur	13,502	12,473		
Patiala	13,496	12,388		
Kapurthala	11,024	11,024		
Hoshiarpur	10,172	9,572		
Bathinda	8,390	8,066		
Gurdaspur	8,030	7,931		
Others	46,120	42,044		
Total	2,59,799	2,34,474		
Number of functional industrial units in Punjab <sup>2</sup>				



As a measure to incentivize the workers, the GoP and Dol&C began to approve fiscal incentives to various industrial units under the Industrial and Business Development Policy of 2017. The scheme also entails simplified approval of MSMEs and also provided the expansion/modernisation businesses access to regulatory and fiscal incentives online.



By the end of April, close to 3,341 industries resumed to regular operations all of which deal in essential commodities.

The re-opening of all the industries in the rural and urban areas of the State was strategized in a phased manner. Industrial units located in 'orange zones' resumed regular operations from 9 am to 5 pm, as per mandated guidelines.

Furthermore, the units located in rural and urban areas including MSMEs and cottage industries located in mixed land use areas also began to function, in compliance with the State Government protocols for COVID-19. The Department also assured the industrial units that no criminal liabilities shall be imposed on the industry and the CEOs in case of an occurrence of a COVID-19 positive case in the workforce. The Department also facilitated bringing back migrant labour to their respective workforce to ensure that there is no loss of employment. With these advisories in place, close to 1 lakh industrial units commenced their operation, with the co-ordinated support of the State departments, thereby successfully reviving the economy of Punjab.



#### Measures taken to ensure efficient functioning of industrial units



Online approval system for running industries



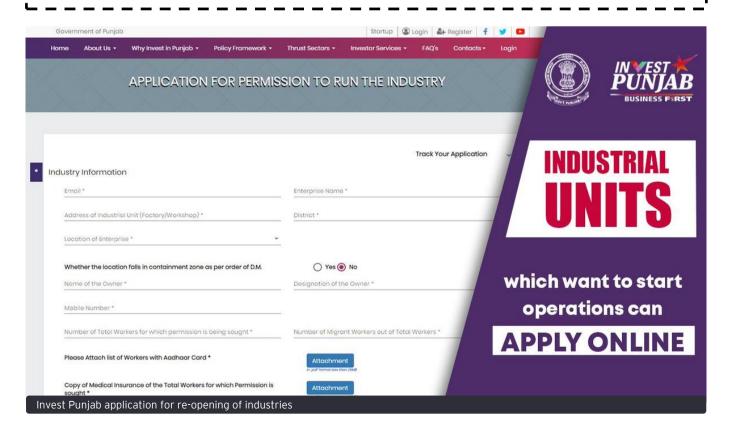
Provision of 24\*7 assistance



50% labour/worker presence



Interdepartmental support



#### 2.3 Interdepartmental support





#### Department of Health and Family Welfare (DoHFW)

The DoHFW issued guidelines for maintaining hygiene and sanitization of the public/private sector industries and the workers. The guidelines mandated the employers to devise a comprehensive workplan to ensure that the presence and working of only 50% of staff in a shift. The Factory Manager was made responsible for devising staggered shift start timetables for all employees. The guidelines also mandated that overlapping of shifts shall be avoided at all costs by provision of a 1 hour cushion for the purpose of disinfection of the operational areas.



#### Directorate of Boilers (DoB)

The DoB extended its support to the industrial units by extension of the validity period of approvals to operate the boiler/to approve repairers, manufacturers under the Boiler Act and the regulations due to expire in March 2020 up to June 2020.



#### Pollution Control Board (PCB)

The PCB provided its support by extending the validity of CTE/CTO authorization, registration and other mandatory regulatory clearance under the domain of PPCB up to March, 2021.



#### Department of Labour (DoL)

The DoL helped in the operationalisation of industries by increasing the total number of hours of work allowed in a day to 12 hours, instead of 9 hours, with maximum of 8 hours with 4 hours of overtime. It also provided INR 3000 to 2.86 lakh construction workers registered as beneficiaries on BoCW and issued advisories to brick kilns and industries to provide ration and salaries to migrant labourers, irrespective of the functioning status of the units. It also coordinated with the Department to help provide transportation for migrant labourers from their native places to Punjab.



#### Punjab State Power corporation Ltd (PSPCL)

The PSPCL enabled the functioning of industries by the following measures:

- Provision of 24x7 uninterrupted power supply during lockdown
- Chargeability of Interest @1% per month on advance payment of electricity bills enabling consumers to earn interest @12% p.a., viz., double the rate of interest on fixed deposit
- Exemption of fixed charges for medium and large supply industrial consumers for 2 months from the date of lockdown period
- Non disconnection of power on account of non payment of electricity bills
- Provision of meter reading on trust facility for small power industrial consumers by uploading their readings on the PSPCL website

#### 3. Department of Rural Development and Panchayats



The GoP established the Department of Rural Development and Panchayats for the implementation of various centrally sponsored and state funded schemes on poverty alleviation, employment generation, sanitation, capacity building, women's social and economic empowerment.

Apart from providing basic amenities and services, the Department endows the Panchayats (Gram Panchayats, Panchayat Samiti and Zila Parishad) with the power and authority to enable them to function as institutions of self government in rural areas of the State. The main functions and duties of the officers and employees working in the department are to provide an administrative frame-work to enable smooth functioning of administrative systems.

During the pandemic, ensuring livelihood, safety and required health services to the rural population of the State became the prime objective of the Department.

The Department took the following steps to fulfil its duties:

- Issued and ensured strict adherence to health and safety advisories regarding preventive measures
- Imparted COVID-19 related training to officials to ensure systematic and planned implementation of activities
- Provided exclusive monetary sanctions for medical supplies and ration supplies for people in immediate need
- Arranged for fumigation of villages in order to contain the spread of the virus
- Initiated production and supply of masks and aprons through the SHGs under the Punjab State Rural Livelihoods Mission (PSRLM)

## INR 2.90 Crore

Sanctioned separately for disinfection of 18 districts

### INR 12 Lakh

Exclusive reserve to ADCs for procurement of medical supplies

23,000+

Villages fumigated by spraying sodium hypochlorite

#### 3.1 Government Bodies

#### **Key Stakeholders**

#### Dept. of Rural Development & Panchayats

Provides and maintains:

- Basic amenities
- Financial support
- State funded schemes



#### **District Administration**

Implementation of:

- Safety measures
- Advisory practices
- Internal coordination among officials



#### **Gram Panchayat**

Maintaining:

- Sanitation and public health
- Records of birth, deaths and marriages in village



## Village Health, Sanitation and Nutrition Committee (VHSNC)

The VHSNC has been formed to take collective actions on issues related to health and its social determinants at the village level. Envisaged as the centre of 'local level community action' under NRHM, the committee plans and implements community based protection mechanism for the various processes and situations. It followed the following roles and responsibilities to safeguard the health of the citizens and reduce the spread of the COVID-19:

- Implementation of awareness drives on handwashing, nutritional intake and significance of nutrition as an important determinant for preventing unwanted infections
- Special care for children was propagated in terms of water intake, heath check-ups, communication with ASHAs
- Promotion of safe drinking water by boiling and disinfection with chlorine
- Identification of locally available food comprising of high nutrient value to minimize outside movement as well as dissemination and promotion of best practices congruent with local culture, capabilities and physical environment through a process of community consultation.

- The committees conducted an in-depth analysis to protect the community and households from COVID-19 with the involvement of ANMs, AWWs, ASHAs and ICDS Supervisors. Special focus on COVID-19 relief was given in the Village Health Plan.
- Monitoring and supervision of inward movement was implemented to ensure no symptomatic or COVID-19 positive person is permitted entry.
- Facilitation of early detection of COVID-19 and communicating the importance of home quarantine with emphasis on mental wellbeing.



### INR 60 Lakh

Provided to SHGs to facilitate the production of safety products

### 6 Lakh

Masks produced and supplied for inter and intra departmental use

## INR 50,000

Allotted to every Sarpanch to be spent on medical & ration needs

#### 3.2 Initiatives undertaken by the Department

#### Social distancing & passes

- The Department provided the Sarpanches with authority to issue Curfew Passes during night in case of a medical emergency.
- IEC campaigns were launched through traditional and modern means of communication to observe social distancing.
- The Gram Panchayats were authorized to mark places for mandatory social distancing like markets.
- Strict vigilance to be observed in public places for adhering social distancing norms. Circles were marked at the distance of 2 meters at all the public places to avoid close contact of people.

#### Thikri pehra

Thikri Pehra or barricaded entry to villages is an age-old concept wherein the community takes the onus of protecting and securing themselves by sealing the villages to minimize social contact with the outsiders. All the basic needs of the people are met in the village itself.

In Niyamatpur village in Amargarh (Sangrur) with a population of around 1000 people, women initiated the night patrolling initiative. Two females carried out *thikri pehra* for 11 hours everyday around the village, with the permission of the District Administration. Even the Sarpanch, along with their fellow village women, stood round the clock on the entry point of the village to avoid any unwanted entry or exit from the village. This exemplary behaviour was followed in other parts of the State as well.



#### Auction during lockdown

As a regular business activity, auction of Shmalat lands (joint property of the village) was conducted while maintaining social distancing in various parts of the State. The auction took place in batches instead of inviting all the bidders at once. The probable bidders were advised to cover their faces while coming to bid. The seating arrangement was strictly maintained according to the social distancing norms. Gram Panchayats themselves took a lot of stringent safety precautions during the auction process. Strict adherence to the guidelines of MHA was ensured at all times .

#### Subsidiary Health Centre

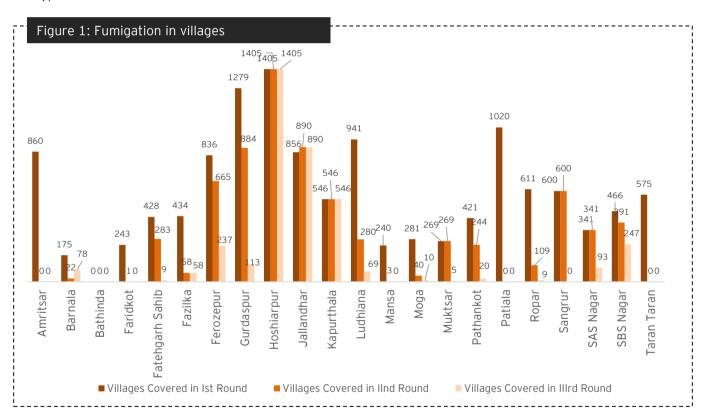
A new dimension of the Department emerged in this pandemic era as around 700 rural medical officers along with other staff of rural SHCs tirelessly performed their duties for months to eradicate this virus from the State. These rural SHCs proved to be a boon as the staff deputed conducted endless awareness workshops in every village to educate people about the role of hand hygiene and social distancing. Rural Medical Officers (RMOs) along with the Rural Pharmacists (RPs) coordinated with local NGOs and community workers and launched dedicated awareness campaigns, conducted day-night surveys, contact tracing in the orange and red zones as a part of RRT. The staff of these dispensaries were put on frontline duties at Control & Command Centre (CCCs) across the State. The responsibility to screen the suspects at Amritsar International Airport, Mohali Airport and Wagah International border was also carried out by the staff of these rural dispensaries. In Gurdaspur, the ICUs designed for COVID-19 were also managed by the members of this dedicated team.



#### Fumigation in villages

- The Department directed all the District
  Development and Panchayat Officers (DDPOs) of
  the State to start fumigating villages as soon as the
  pandemic started spreading. Gram Panchayats
  encouraged the village youth to come forward and
  provide services related to spray and fumigation in
  the villages.
- The Government issued Rs. 180.35 lakh to the Department for disinfecting 4 Daoba districts namely Hoshiarpur, Jalandhar, SBS Nagar and Kapurthala. An additional grant of Rs. 290.78 lakh was sanctioned to complete the disinfection work of 18 districts in the state.
- Fumigation was done three times in most of the villages, 12861 villages in first round, 7031 villages in second round and 3860 villages in third round by spraying 4.81 lakh liters of Sodium Hypochlorite.





#### Procurement of safety kit

The Department sanctioned an amount of INR 12 lakh to every ADC to procure medical supplies like mask, sanitizer, etc. for the RMOs and health workers working in Rural Dispensaries/ Health Centres. Foreseeing the spread of the pandemic, the Department ensured that the staff working at the medical units were well equipped and no transmission of the COVID-19 amongst the staff is detected.

#### Financial aid

The Department provided the authority to Sarpanches to spend INR 5000 per day and a maximum INR50,000 during the lockdown on medical and ration supplies. The Gram Panchayats were required to make detailed resolutions regarding the procurement process of goods and remittance of monetary relief. A detailed record of the beneficiaries under this initiative was also maintained in order to check for later requirement of aid.

#### 3.3 Additional services



#### COVID-19 related training

- The Department deputed Deputy Director (HQs) as Nodal officer at the state level for all COVID-19 related training on 11<sup>th</sup> March 2020.
- The Deputy CEOs in the State received the training imparted on prevention from COVID-19 prevention and then acted as Trainers to disseminate the same to the staff.
- Master Trainers of State Institute of Rural Development were certified by the Department of Personnel & Training for successfully completing the training on the 'Basics of COVID-19'.
- The Faculty of SIRD also underwent 'Training of Trainers Course on COVID-19 and Risk Communications' conducted by NIRD&PR in collaboration with UNICEF through Zoom application.



#### Management of visitor data

- The Department of Rural Development and Panchayats had compiled a database of persons, who came to Punjab from outside the country on or after 15 February, 2020.
- The Gram Panchayats have helped the departmental officials in tracing these foreign visitors.





#### Awareness regarding COVID-19

The IEC activities were carried with full vigor by the Department of Rural Development and Panchayats by the following means:

- WhatsApp Group of all Sarpanches was created and various videos and instructions regarding the role of Gram Panchayats in preventing Coronavirus and managing migrant workers reaching villages were shared on regular basis.
- WhatsApp Groups of families in villages were created to share the awareness messages about the Coronavirus disease, symptoms and its prevention.
- Awareness videos and news were circulated on various social media platforms.
- Department also created official accounts on Facebook and Twitter to spread its arena of IEC activities. This was also done towards keeping fake news and rumors in check so as to avoid any panic generation among the rural people.
- Pamphlets distributed and pasted at public places by Sarpanches at the village level to promoting social distancing.
- A daily message/advisory was circulated to the public regarding COVID-19 concerning precautions to be taken and policy measures being implemented by the Department to contain the contagion was issued and circulated in the Sarpanches WhatsApp group.
- E-learning material related to Coronavirus was developed in Punjabi language for the Sarpanches, sarpanches and families



#### Employment for the rural poor

- Van Mitras were appointed to take care of saplings planted in every GP. This provided a means of livelihood to the rural poor during lockdown.
- The Department also started a special cleaning drive of ponds. This drive was initiated to ready the ponds for monsoon season through dewatering and desilting. This also paved as an employment opportunity for the rural poor. Proper safety protocols were maintained during every work opportunity provided by the Department. Adequate number of masks, gloves, sanitizers were made available to the Gram Panchayat. The rural poor were also screened for COVID-19 before and after work.

#### 3.4 Self Help Groups

In the dire times of COVID-19, Punjab State Rural Livelihood Mission (PSRLM) actively worked on the four fronts to provide the best service during the crisis and help the people in need. The women-led SHGs formed under PSRLM emerged as an effective frontline responders. A total of 641 SHGs having 3573 SHG members were involved in the process of making masks, aprons and related safety products. A total of 5,45,828 masks, 2471 aprons and 592 face shields have been delivered by the SHGs till July 2020.

#### Patiala PSRLM



Manufactured and supplied over 1,20,000 masks as per Government orders.



Manufactured and supplied 158 aprons with caps, for doctors and paramedical staff



Bank Sakhis have ensured steady cash flow in rural areas, visiting ATMs and banks with precautionary measures and permissions to withdraw cash



SHG members in different villages started Langer Sewa for the poor people and distributed raw food materials and other important in rural areas



PRP/CRP provided sanitary napkins in various villages to women and girls under the project 'Pakeeza'...



Provided R.F to 243 SHGs amounting Rs. 36,45,000/- and C.I.F to 46 SHGs amounting Rs. 23,00,000/- .To reduce the financial distress of community members, a moratorium has been given against all outstanding loans taken was provided.



'Digital Margdarshak Program' was started with prime focus on parents in low income communities, who are unable to support their child's development.

#### **Gurdaspur PSRLM**

On 22<sup>nd</sup> March 2020, Commissioner Gurdaspur gave orders to engage SHG members to make double layer cotton cloth mask to fight against the pandemic. The rates of INR 13/- per mask was also decided by the District Administration itself. 342 SHG women from different blocks of Gurdaspur district were identified for this task. The order of 10,000 masks fetched the SHG an amount of INR 12 lakh. PSRLM Gurdaspur also distributed ration to 300 poor families in the villages and ordered sanitization of these villages.



SHG from Block Harsha Chhina, Amritsar has emerged as a champion among the other SHGs with its active involvement in mask making during this crisis. Initially, the SHG received an order of 400 masks by the District Administration, which they fulfilled. Cloth used for this order was purchased by the SHG on their own and they were paid INR 10 per mask. Due to their prompt response and hard work, the SHG got an order of 33,000 additional masks which generated a spark for the other SHGs in the district to get into mask making to fulfil the need of the hour. This instilled a lot of confidence in SHGs and led to consistent delivery of masks without the quality being hampered. This also led to an increase in the member participation in SHGs throughout the State.

#### 4. Department of Cooperation



The Government of Punjab established the Department of Cooperation with the objective to provide for greater self-reliance, administrative efficiency and structural reforms. Cooperatives are autonomous, democratic organizations controlled by their members, who actively participate in formulating policies and making decisions.

The cooperatives provide education and training to their members, managers and employees in order to help them become more self reliant and contribute effectively to the development of their cooperatives. Punjab, a State of innovations and structural reforms, has one of the largest number of member of the cooperatives in the country. Over the years, there has been a shift to digitize the processes and ensure greater efficiency in terms of products and services. Apart from industries, the cooperatives are also engaged in varied social services as well.

The apex cooperative federations under this department are:

- The Puniab State Cooperative Milk Producers Federation Limited (MILKFED)
- The Punjab State Cooperative Supply Marketing Federation Limited (MARKFED)
- The Punjab State Federation of Cooperative Sugar Mill Limited (SUGARFED)
- Punjab State Cooperative Bank Limited (PSCB)

Almost every cooperative assisted and delivered essential services in one form or the other to the State. MARKFED and SUGARFED extended their support to the agricultural processing sector, MILKFED provided the production and supply of milk & milk products and PSCB dispensed finance related services to a huge consumer base. These cooperatives also contributed in strengthening the financial condition of the State, during the unprecedented times.

## INR 1,000 Crore INR 25 Lakh

Special Liquidity Facility (SLF) availed by the Punjab Co-op Bank for lending

Individual insurance cover provided to the employees

20,000+

Staff deployed in the functioning of the department

## 4.1 The Punjab State Cooperative Milk Producers' Federation Limited (MILKFED)

MILKFED was formed in the year 1973, to improve the dairy farming sector in the State. It came with a twin objective to provide a lucrative milk market to the State milk producers by value addition and marketing of produce and to provide technical inputs for the enhancement of milk production. It was set-up as a three-tier system with Federation as the apex body at the State Level, Milk Unions at the District Level and Cooperative Societies at the village level. Over the years it has grown multifolds and has branched out to other aligned dairy products and online delivery systems.

Milk being one of the most nutritious product, it has a high demand throughout. In order to protect the immune system, the demand for milk was raised. Meeting the needs of this raised requirement was complimented with the challenge of safe transportation and delivery. The cooperative through its vast network practiced and followed every safety protocol mandated by the Government.

#### **Supply Chain Management**

With the increased production of long shelf life milk and milk products like UHT milk, skimmed milk powder, white butter etc., the milk production plants was running at their full capacity. Close coordination with the District & State Administration officials were maintained, in order to ensure smooth operation of procurement, transport, processing, marketing and intrastate and interstate movement of milk and milk products. Supply lines of packaging materials, secondary packaging & other consumables required for packaging of milk and milk products from across India were ensured by coordinating with respective states through Secretary and Joint Secretary, DHAD, Government of India. The existing distribution network was strengthened and augmented by making arrangements for door to door supply immediately after imposition of curfew. All the relevant information was given to consumers through print, electronic and social media about door-to-door supply of products. Additional vehicles were pressed in service and arrangements were also made for online delivery. Cattle feed plants carried on their operations without any interruption during curfew/lockdown. The production plants achieved their best ever capacity utilization during this period to meet the demand of the dairy farmers of Punjab. Online food delivery channels like Zomato, Swiggy also partnered in the home delivery services of milk and milk products.

#### Infrastructure and Safety

Ensuring the safety of the produce and its employees was given the first priority. Every employee of the cooperation was provided with masks, gloves and PPE

kits where required. Stringent check of body temperature and symptoms of COVID-19 was carried on for every employee before entering the premises of the production plant. The State COVID-19 Control Room coordinated between Milk Unions, hired plant, suppliers and the district administration to further rule out any possible transmission of COVID-19. The State Transport Commissioner, Government of Punjab was approached for permission to run hired transport facilities for workers/officers working in milk plants / units of MILKFED in the State in order to reduce the outside interaction while travelling. The cooperation issued its own guidelines with the following points to corroborate maximum safety protocols:

- Strict compliance and maintenance of hygiene, sanitation, social distancing, wearing of masks and proper hand washing was ensured at all times
- Complete arrangement for food, house, sanitation facilities to take care of migrant laborers working in respective plant was ensured
- Drivers/helpers/transporters were screened though heath checkpoints established
- Measures were taken for disinfecting of all the incoming vehicles before by spray pumps they enter plant premises
- Hygiene and social distancing during milk collection at Milk Producers Cooperative Societies (MPCS), BMCs was maintained between dairy farmers and all stakeholders in backward linkages

#### Financial provisions

MILKFED spent INR 1.2 Crore on the account of insurance of its employees, in case of death due to COVID-19 pandemic. Additional funds for procurement of protective items like gloves, masks, sanitizers, hairnet were used in day to day operations of dairy plants for maintaining hygiene and sanitation was sanctioned. Additional stock of the same was kept in abundance to ensure no loss of work and no leniency in the safety standards. Despite the rise in demand and increase in deployment of vehicles, the cooperative did not raise the price of any of its products. The vendors and distributors were also assisted with the financial provisions in procurement and maintenance of stock with mandated safety guidelines.

### INR 1.2 Crore

spent on employee insurance of by MILKFED

## 4.2 The Punjab State Cooperative Supply Marketing Federation Limited (MARKFED)

MARKFED is one of the largest marketing cooperative federations of Asia. With over 3,000 societies registered with the cooperative, it caters to varied needs of the farmers. With the aim to serve the farmers of the State, it strives to:

- Strengthen the cooperative network and the farming community
- Arrange timely inputs to the farming community on technical advancements and financial provisions
- Provide adequate marketing opportunities to the farmers

The following activities were performed by the cooperative during COVID-19 to assist its societies and farmers:

- Procurement of wheat and paddy for the central pool
- Distribution of agricultural inputs like fertilizers, agro-chemicals, seeds etc.
- Processing and marketing of agricultural produce of farmers like Vanaspati, refined oils, ready-toeat(RTE) food items, spices etc.
- Production and marketing of different types of cattle feed /mineral Mixture & calf starter

#### Procurement of Wheat

The procurement of wheat was the major task accomplished by the cooperative during the pandemic. The procurement of wheat in the State is regarded as the biggest event of procurement of any food commodity at MSP in Asia. Out of the total 127.5 LMT, MARKFED procured 30 LMT of wheat successfully in 968 purchase centres during the lock-down/curfew period. Regular coordination with the Department of Food Civil Supplies and Consumer Affairs and Department of Agriculture was maintained to ensure smooth functioning. During the complete procurement process, all the guidelines issued by MHA/Govt. of India and social distancing norms were followed.

#### **Assistance through PACS**

Primary Agriculture Cooperative Societies (PACS) performed the following activities for the welfare of Farmers/Villagers:

- Home delivery of ration/essential commodities in villages
- Advance stocking of fertilizers was done to make the same available to the farmer members during the sowing season
- The scale of finance for the farmer members was extended for the financial year 2020-21 to enable the farmer members to avail hassle-free credit during these troubled times of COVID-19

#### 30%

Procurement of the total wheat production in the State was done by MARKFED

#### INR 26 Crore

Worth of edible products sold by MARKFED

#### Safety precautions

Almost all the activities covered by MARKFED fell under the arena of essential supplies. These services were managed by skeleton-staff with strict adherence to the health advisories issued by MHA/Central Government. Sanitizers, masks, and thermal scanners were procured and placed at the offices and societies as precautionary measures.

#### **Distribution & delivery**

During the lockdown, MARKFED initiated door-to-door supply of essentials. The Chandigarh Administration empanelled the cooperative as the Government agency for supply of essential commodities in Chandigarh. It also supplied essential commodities to other District Administration offices for distribution amongst the needy. 50 vehicles were pressed in service and 25-member teams were formed to enhance the delivery experience for customers. Applications like Swiggy, Zomato and Bhejo were approached for utilising their distribution channels to reduce delays in deliveries. Agreements were executed for the supply of SOHNA (society registered with MARKFED) products/ grocery items with Grofers and Big Basket distribution channels.

Special kitchen kits were prepared as per the need of the households and same were supplied extensively supplied to various district administrations in the State for further distribution.



## 4.3 The Punjab State Federation of Cooperative Sugar Mill Limited (SUGARFED)

SUGARFED acts as an apex body of fifteen cooperative sugar mills in the State. 9 functional cooperative sugar mills are located at Ajnala, Batala, Bhogpur, Budhewal, Fazilka, Gurdaspur, Morinda, Nakodar and Nawanshahr with crushing capacity of 15850 TCD. Its objective is to increase the profitability of the running sugar mills and to revive the ones not turning profit. 1.80 lakh farmer families are connected with these sugar mills. The cooperative provides the farmer members - disease-free seed, pest control management with timely purchase of their produce and financial services.

#### Procurement and processing

The crushing season had to be closed on 23<sup>rd</sup> March, 2020 due to lockdown and the curfew imposed. 1.5 lakh QTL of sugar cane was estimated to be in the cooperative owned fields of mill area. Leaving the raw sugarcane in the field for long would have led to its depletion and major financial losses. Thus, a decision to restart the mills and process the leftover stock was taken. The sugar mills ran on its full capacity between 1<sup>st</sup> April-8<sup>th</sup> April,2020. During this tenure, raw sugarcane was procured, safely transported to the mills, processed and packaged with the deployment of over 1500 staff and members of the cooperative.

#### 4.4 Punjab State Cooperative Bank

Since 1949, PSCB has been developing cooperative banks as strong and self-sustaining credit enterprises throughout the State. It plays a catalytic role in the development of agricultural and non-agricultural sector and the rural economy in general and the society at large. With over 20 district central cooperative banks having 802 branches all over the State, managing a vast customers base became a challenging task during the lockdown/curfew. The following tasks and activities were conducted by the cooperative to provide a hassle free experience to the customers, which included farmers from the rural areas in majority:

- All branches and ATMs were made operational with the provision of sanitizers and strict adherence to social distancing
- All arrangements were made for smooth running of Clearing work including NACH (National Automated Clearing House) to minimum presence of customers in banks
- DBT (Direct Benefit Transfer for social schemes remittances/pensions etc.) were uploaded on a regular basis
- In accordance with the mandate of RBIPSCB, a grant moratorium of 3 months on payment of all installments due between 1<sup>st</sup> March 2020 and 31<sup>st</sup> May 2020 was provided
- In respect of working capital facilities sanctioned in the form of cash credit facility/overdraft, lending institutions were permitted to defer the recovery of

#### Safety precautions

By adopting all precautions, the sugar mills carried out various activities successfully like the distribution of cane seed, pesticides and sugar to the farmers to maximise their produce. The sugar mills and other related work spaces of the cooperative ensured the availability of:

- Thermal scanner at entry point
- Sanitizer/soap provided at entry point
- Sodium Hypochlorite spray system for sanitizing various stations and machines regularly

Several migrant labourers were engaged in the processing of sugar cane. Separate arrangement for the lodging of these labourers was done in the factory premises itself to reduce the travel and interaction with outside world. Additional assistance was provided to the travel related services as well. COVID-19 testing of every labour was carried out in coordination with the District Administration and the Department of Heath.

390 officers were specifically deputed to monitor the safety and administration in the sugar mills. This team ensured complete adherence to the guidelines and advisories issued by MHA and the State Government.

interest applied in respect of all such facilities between  $1^{st}$  March 2020 and  $31^{st}$  May 2020

- Relief to the farmers was provided by waiving off penal interest on their crop loans for two months of March and April.2020
- The Maximum Credit Limit (MCL) for crop loans provided to farmers by the cooperative through PACS was extended for the year 2020-21
- On behalf of the District Cooperative Central Banks (DCCBs) financial assistance of Special Liquidity Facility (SLF) amounting to INR1000 Cr. was utilized for fresh lending to farmers
- Cash withdrawal facility through 115 micro ATMs was provided at the door step of customers
- ATM vans were sent to the rural parts of the State on a regular basis

All employees of PSCB/DCCBs contributed their one day salary towards the Chief Minister Relief Fund which was used to mitigate the impact of COVID-19 on general public.

## **1.5 Lakh quintal** of raw sugar cane procured and processed during lockdown

Over 20,000 dedicated members of the department performed their duties to meet the financial, agricultural and essential needs of the citizens of the State.

 Charndev Singh Secretary, Department of Cooperation

#### 5. Department of Water Resources



Water is one of the most essential natural resources. It is a basic human need and the most important input for all human development activities. During the pandemic, several efforts are being made to develop, plan, conserve, utilize and manage this important resource, both surface and ground water, in a judicious, equitable, sustainable and sound economic manner.

Punjab, the name derived from the Persian words, *Punj* (five) and *Ab* (water) is a land of five rivers which formed part of Indus Basin. The sudden outbreak of COVID-19 affected the State's natural resource from three Eastern rivers Sutlej, Ravi and Beas. A revised plan of action was developed to safeguard the interlinked river system widespread over 14, 500 kilometres long canal systems. The estimated value at the present price level of water resource infrastructure in the State is over INR 50,000 crore.

### 125

Migrant Labourers provided separate lodging facility at RSD

## **INR 50 Crore**

Worth of work executed under drainage administration

The Department has implemented projects like Bhakra Dam on river Sutlej, Pong Dam on river Beas, Beas Sutlej Link Project and Ranjit Sagar Dam (RSD) on river Ravi in addition to the construction of Nangal Hydel Channel, Anandpur Sahib Hydel Channel, Bhakra Canal System, Mukerian Hydel Channel, Shah Nehan Barrage, Harike Barrage etc.

Apart from the regular work including maintenance of dams and canals, the Department has also been engaged in drainage administration and flood relief. The previous experience of managing systems during a disaster became a boon for the Department, as it already has safety and emergency protocols in place to safeguard the citizens from any imminent threat. The pandemic has affected every sector, but the Department continued its assigned work with putting in place a robust safety network ,as mandated by the Government.

# 40-bed Isolation Centre

Constructed at RSD hospital

### INR 2.39 Crore

Worth project of Kandi Canal Syphon resumed

#### 5.1 Activities performed during COVID-19



#### Construction of Shahpur Kandi Dam

The Shahpur Kandi Dam project, once completed, will reduce the outflow of the river water to Pakistan while benefitting both Punjab and Jammu & Kashmir. Initially, the construction work on Shahpur Kandi dam was suspended due to the nationwide lockdown. Following relaxations in the lockdown 2.0 by MHA, the Chief Engineer pursued the case to restart the construction work at site with the District Administration, Pathankot. The District Administration allowed construction work to begin at site on 28th April, 2020 and the project was resumed.

All precautionary measures were followed at both Shahpur Kandi dam and Ranjit Sagar Dam (RSD) to contain the spread of COVID-19. This included the creation of a 40-bed isolation facility in RSD hospital, regular sanitization and disinfection of township, hospital, banks, ATMs, security barracks, offices and Police station in the vicinity of the RSD Project in Shahpur Kandi township. The Keshav Hall, Shahpur Kandi township was created into a quarantine facility with the help of civil society group as per the guidelines supplied by the District Administration to cater to the needs of 125 migrant labourers. A special estimate for RSD hospital containing items like PPE kits, masks, gloves sanitizers, disinfectants, bed sheets etc. was sanctioned for the safety and security of the patients, doctors and paramedical staff.

#### Drainage administration

The Drainage Administration's Executive Engineers, SDOs and their associated staff played an active role in their respective districts. They have been discharging their duties as Section Officers/Duty Magistrates, as assigned to them by the District Administration. The department also undertook activities like the cleaning works of dry drains in the State through MGNREGA.

Additionally, cleaning of drains and flood protection works in the State amounting to INR. 50 crore (as per instructions of FD, it was reduced from INR 100 crore, due to COVID-19 restrictions) executed during the month of May and June, 2020. These works have been completed before the onset of monsoon.

#### Kandi Canal Syphon Project

The Kandi Area Development section of the Department resumed its work on Kandi Canal Syphon in Hoshiarpur district from 24<sup>th</sup> April, 2020. The total project cost was INR 2.39 crore. The work was supposed to be completed before March 2020 but it was halted due to the lockdown. The revised date for the completion of the project is before the start of the monsoon season.

All precautionary health, social distancing and sanitization measures were actively practiced. Additional arrangements were done for the lodging of migrant labourers. This has led to zero reported COVID-19 cases from the area.

#### 6. Department of Water Supply & Sanitation



The Department of Water Supply & Sanitation (DWSS), Punjab endeavours to provide safe drinking water and sanitation facilities to rural habitations on sustainable basis. To ensure permanent drinking water security in rural areas, conjunctive use of ground water, surface water and rain water harvesting is promoted by the Department. It further involves the rural community in planning and execution of rural water supply schemes to make the community capable of its operation & maintenance on their own. The Department also implements the Swachh Bharat Mission- Grameen in the State to improve the rural hygiene by providing individual toilets and sewerage system. Besides this, the department has been educating and imparting guidance to the public regarding water quality monitoring and surveillance, creating awareness about the water borne diseases and other health hazards caused due to lack of sanitation and open defecation.

During the pandemic, the role of DWSS in ensuring uninterrupted supply of water to every rural household became crucial as well as challenging. The staff was adequately sensitized and trained to deal with the new required roles of safety and sanitization. The Department also worked in close coordination with the District Administration, Department of Health etc. to provide essential services. Several officials of the Department were given additional responsibilities like management of quarantine facilities, like inward migrant and NRI movement and even specialised roles of counselling for people in distress. Several innovations and improvisations were incorporated by the Department to make the optimum use of available resources. The on-ground staff and dedicated IEC systems imparted information about the safety precautions, guidelines and advisories to be followed. Over 10,000 staff worked day and night to serve the rural population of Punjab in these unprecedented times.

## 8 lakh+

Rural households sanitised

## 4 lakh+

Rural households provided with Chlorine disinfected water 10,000+

Staff deployed to ensure safety of rural population

#### 6.1 Chlorination & Sanitization

#### Chlorination

Chlorine has been deduced as one of the most effective disinfectants against COVID-19. Subsequently, the Public Water Supply was disinfected with chlorine at all levels. Homeowners with private wells who were concerned about pathogens such as viruses in drinking water were also reached out to disinfect the water source with Chlorine. The disinfection process was made available to every rural household and left no one behind. All water works related to engineering, structural changes and ensuring continuous water supply were the prime priorities of the Department. The following steps were taken in as per the classification of the areas:

- Marking cluster including adjoining villages into No risk, Low risk, Medium risk, High risk and Extreme high risk areas
- Maintaining the Chlorine dose for disinfection of water supply between 0.2 to 1 ppm
- Promotion of adherence of advisories and guidelines w.r.t to masks, gloves, social distancing etc.
- Close monitoring with all the departments
- Cluster Nodal Officers (CNO) were appointed in areas with more than 3 nearby villages affected
- Daily reporting and monitoring of every village by Junior Engineers
- Use of digital means such as WhatsApp and COVA app

to update status of services

The Department also diligently paid extra attention to look out for any leakage or unwarranted connections made to the pipelines.

#### Sanitization in rural areas

The workforce of the department deployed at ground zero was engaged in wide-ranging activities to provide the rural population the required services to ensure complete sanitization and social distancing. Special focus was given to sanitize all the quarantined households in a village. The access to every rural household was utilised to its maximum potential in ensuring the social distancing was practiced whenever villagers stepped out of their houses. The maintenance of community toilets in the rural areas was given additional priority. Social distancing in the team was ensured at every instance. The team was also equipped with adequate safety equipment as gloves, masks, PPE kits and the required chemicals and disinfectants.

#### Village action team

Soon after news of the outbreak reached the villages, the Sarpanches and Panchayat members maintained their calm and chalked out a strategy to deal with the situation. A team comprising of DWSS officials, ANMs, Panchayat Secretary, ASHAs and Sarpanch from the village came together to create awareness among the community about preventive measures that can be taken to curb the spread of COVID-19. Leading from the front, the Sarpanches and the DWSS team went door to door informing people about safety precautions to follow, such as staying indoors, wearing masks, washing hands with soap and water frequently, effective use of sanitizer, covering mouth and nose while coughing or sneezing and the mandated directives of the Government on COVID-19.

This team also raised money from the community and used

the same to provide dry rations to the families in need. Volunteers were selected from the village to provide food and medicines to the villagers. Wheat received from the government was equally distributed to the household by the volunteers . Round the clock monitoring with updates was circulated using WhatsApp as a means of communication.



2 lakh+

Masks produced and supplied

10,000+

Village Action Teams formed to provide essential services

500+

Dedicated IEC teams disseminated information

#### 6.2 Support from Sarpanches

#### Ration distribution

As soon as the country wide lockdown was announced countrywide in India, an immediate action was taken by the Sarpanch of village Ispur, Mr. Rajwinder Singh Dhaliwal, Block Jalandhar West. Using the loud speakers at the Gurudwaras, the required steps for social distancing were announced. Further, groceries were distributed to the needy villagers as well. A group of volunteers also distributed dry ration kits and cooked meals with the help of the DWSS team.

Following this model, junior engineers were asked to collect the data of the requirement of ration kits in their allotted areas. This exercise was beneficial in estimating the total food requirement per village in the State.

#### Paani samiti- Saviours of village

The pandemic has brought a drastic change for all classes of people- whether they are rich or poor. People living below poverty line were the worst affected. With no access to earn their daily wages and meet the needs of their families , people from different communities came forward to serve the needy during these testing times.

Paani Samiti is a group of 10-12 members, constituted in Gram Sabha to plan, implement, manage, operate and maintain village water supply system. The members of Paani samiti along with other women of the village Mehma in Bathinda closed the entrance of the village to stop the outsiders to enter in the village without anyone else's help. These women provided fresh cooked food everyday for the people who have lost their daily wages. More than that, the women of the village made masks for the people of the village to keep themselves safe from COVID-19. The tremendous role of the women of village Mehma Bhagwana is creating the real example of the- 'saviors of the community'.



#### Utilising Mohalla committees

One of the main challenges during the lockdown was to take care of the weaker section of the village community. The list of weaker section includes the daily wage earners, old couples, widows, migrant laborer, and single women. A list of the same was prepared by the volunteers and distributed groceries to such households for their daily consumption.

Sarpanch Gurpreet Kaur is one of the many examples who performed her foremost duty and responsibility to protect the village community from the COVID-19 pandemic. In support of the Chief Minister declaring a curfew/lock down, the energetic Sarpanch from Cholang village in Jalandhar district of Puniab took steps to protect the health of the people in her village. Along with the Panchayat members, she mobilised the Mohalla committees comprising of the residents of a various tolas to start mass awareness campaign about the deadly COVID-19. The committee motivated people to adhere to the instructions issued by the district administration as well. The committee also decided to appoint women to safeguard the village entrance and take care of security checks from 8 AM to 8 PM. The duty of the women guards was to check visitors and ensure they have curfew passes issued by the district administration. . Further, all of them were sanitized before entering the village and briefed about the guarantine process and rules to be followed in order to keep the fellow villagers safe. Though some people opposed the idea of women performing that particular duty but the enthusiasm and willingness of the women overcame this hesitation.

The model was replicated in other districts of the State as well.

#### Doorstep delivery of old age pension

In the wake of COVID 19, Sarpanch Ajay Kumar Saini, Village Chounta, Ropar has taken great initiative to ensure the delivery of old age pension at door step to the beneficiaries in his village. The old age pension of INR. 750 per month proved to be a big support for poor people, especially in this crisis situation, when the family earnings are close to zero. The Sarpanch took this task on priority and distributed the amount directly to the beneficiary. Further, he ensured that no one in the village slept without food. For this, a community kitchen was setup to prepare & distribute free food to the poor and daily wagers. The whole village was sanitized by spraying the disinfectant with support of young people of the village. The response from the people drove his motive of reaching out to his fellow villagers in need. Apart from the monetary support, emphasis was laid on the mental and physical well being to curb emotional turmoil caused due to isolation and depression.

#### 6.3 Communities come together

#### SHGs- Ray of hope

Even as war-like efforts have been mounted across the country to combat the COVID-19 threat, the young Sarpanch of Chhina village in Gurdaspur district performed his duty to protect the village community and ensure that correct hygiene standards are met. Owing to the shortage of face masks in the market, Sarpanch Mr. Panthdeep Singh bought face masks from Saflata Self Help Group (SHG) at INR. 10 per mask and has distributed them to all people in his village free of cost. He has also put up notices in prominent places to dissuade visitors to the village and encourage social distancing.

At the entrance of Chhina Village-banners which read: "Attention Please! Outsiders are not allowed into our village. Kindly support the Government initiative to combat the threat of Novel COVID-19 Disease (COVID-19)" were put up.

The Gram Panchayat of village Awam carried out remarkable work for the village community through its SHG members in the village. Following precautionary measures to protect oneself and the community, the members of the SHG were motivated by the Gram Panchayat to prepare the masks for the community. With much vigor and enthusiasm the members stitched and distributed these masks to the needy people of the village who could not afford to buy them.

#### Service before Self

Moga district, one of the largest producers of wheat witnesses the seasonal migration from agricultural workers in abundance. Mr Jaswinder Singh Chahal, Executive Engineer, DWSS, Moga was entrusted with the responsibility of the management of Inbound Registration Area in the district. He also led the Mission Fateh Campaign with Ms. Jasleen Kaur Gill, Clinical Psychologist, Civil Hospital, Moga, The duo has addressed and counselled over 1178 persons including 135 NRIs from the USA, Canada, Italy, UAE and Kuwait. Anxiety, confusion and stress levels are at its peak when a person is brought to a quarantine facility. Even after being classified as asymptomatic, the unending fear of uncertain quietus haunts one's inner self throughout. Ms. Jasleen, with her experience and expertise, handled every case with precision and utmost care. Being devoted to the cause, she has worked day and night counselling patients, arranging physical-outdoor activities, organizing regular virtual interaction with family members followed by required medical screening. Be it the initial days of interactions with alleged Tablighi Jamaat members or the last week interaction with an NRI woman who returned alone from Kuwait, Ms. Jasleen has been an inspiration to every patient.

This spirit of service and commitment to the greater good was enshrined in every member of the Department as they did their bit towards curbing the spread of COVID-19.





Mr. Chahal and Ms. Jasleen during their session

Water never stops and so does our team. Our team has demonstrated a distinguished dedication in meeting the expectations of people and in delivering the most important essential service of water supply in the rural parts of the State.

> -Sh. Amit Talwar, IAS Head, Dept. of Water Supply & Sanitation -cum- Mission Director, Jal Jeevan Mission



#### 7. Department of Local Government



The **Department of Local Government (DLG)**, Punjab is responsible for the planning and implementation of a vast range of services. Every citizen living in the vicinity of an urban town is directly impacted by the everyday activities of the DLG. Its main functions are to:

- Supervise and control the functioning of all the Municipal Corporations, Municipal Councils, Nagar Panchayats and Improvement Trusts in the State
- Implement the State/Centrally sponsored schemes through urban local bodies (ULBs)
- Execute the water supply and sewerage schemes through Punjab Water Supply and Sewerage Board

The Punjab Municipal Infrastructure Development Company (PMIDC) was constituted as a non- profit company by the DLG. The main objective of the company is to promote upliftment of the living standard of urban population including urban poor in the State and to assist the ULBs and other agencies by augmenting essential resources including but not limited to through pooled manner and facilitate urban Infrastructure projects.

The coordinated efforts of DLG and PMIDC led to a strategized use of IEC activities to educate, motivate and implement the essential service related to sanitation, solid waste management, water supply, sewerage and maintenance of street lights, fogging and spraying of Larvicides in vulnerable areas, supplying essential items etc.

# 45 lakh

Ration kits provided to the stranded people

30,000+

Swachhata Warriors deployed for SWM in ULBs 575

SHGs financed to produce medically viable masks & gloves

#### 7.1 Solid waste management

#### **Planning**

The PMIDC has been implementing SWM operations in urban areas of the State through the ULBs. IEC being one of the key components, SBM-U has been given priority for behaviour change communication for sustained sanitation. Engaging citizens to adopt good practices like segregation of waste at source, giving waste only to authorised door-to-door waste collector, restriction on littering to stop creation of Garbage Vulnerable Points are some of the milestones achieved by the department. Focussed on interpersonal communication, use of electronic and print media, group communication /citizen engagement through social media/ feedback, an expert team of 400+ Community Facilitators and Motivators were already available at the State's disposal.

Planning for management of activities conducted by the Department involved the staff to undertake trainings on the following aspects:

- Adherence to advisories in order to comply with the permissible activities.
- Management of waste with Minimal Human Touch.
- Basic Sanitation including Handwashing, safe disposal of waste, use of PPE kits.
- Multivitamin & Zinc supplementation course for self care.
- Designing effective travel plans to ensure safety while passing through the containment zones.

#### **Procurement**

To supplement the planning and human workforce deployed on-ground, **procurement** of the following machines was done to ensure complete sanitization of urban areas, hospitals and public offices:

- Battery operated spray pumps
- Sanitization machines
- Sanitizers
- PPE kits
- Spray canon tractor
- · Thermal scanner

Provision for separate **emergency rooms** for management of operations was also made available at district headquarters. Every district followed up with the staff deployed on-ground to check on the health status, issues faced in communities, response of citizens etc. Medical teams were also kept on standby, in case of any emergent need during the working hours .



#### **Swachhata Warrior**

The DLG through its resources available in ULB, provides basic amenities to the urban population of the State. Every citizen who lives in the vicinity of an urban town is affected by the everyday activities of the DLG. Even during the unprecedented times of COVID-19, absolute sanitation and uninterrupted waste management activities were carried out by the Swachhata Warriors - who acted as the real chevaliers. With the on-set of Swachh Bharat Mission, the nation has seen a massive shift towards cleanliness drives. Urban areas being closely dependent on the civic bodies for management of waste required trained staff for collection of waste from individual spaces. With the pandemic and curfew imposition in the State, management of waste became more crucial. With several uncertainties and ambiguities, leaving any waste unattended could have led to odour, over-piling of waste and a rise in common infections.

1 Swachhata Warrior

(Total - 30,000+)

: 333

Persons in a ULB

Total urban population is 1 crore

Over 30,000 Swachhata Warriors across the State came forward to perform their duties everyday during the pandemic. The Swachhata Warriors were provided with PPE kits, sanitizers and tools to maintain social distancing while collection and transportation of waste.

# 66 lakh

Persons provided with food in shelter homes

97%

Coverage achieved in door-to-door collection

71%

Segregation of waste at source

#### 7.2 Business as usual

#### Sanitization in urban areas

The department was the front runner in this war against COVID-19. Further, the Department facilitated stringent checks in routine duties, deployment of departmental workforce on ground zero to engage in wide-ranging activities and to help the citizens of the State in this crisis situation. Cleanliness drives at the following public places conducted regularly:



Special focus on the sanitization of hospitals, jails and public offices is still ongoing. Due to the sensitive nature of jails and in-lieu of procurement season, sanitization of jails and mandis was carried out on a regular basis.







Hospitals Ja

Public offices

#### Fogging

Fogging and spraying of Larvicides in vulnerable areas to prevent the breading of mosquitos was regulated. ULBs provided masks, gloves, shoes and other protective gears to its workers and it ensured that they wear this protective gear while performing their duties and that social distancing norms are religiously followed.



Looking at the way Doctors and medical staff were treated in some parts of the country, every possible method was used to safeguard our sanitation heroes from any sort of trouble and danger on ground.

--Ajoy Sharma, Secretary, Dept. of Local Government and CEO, Punjab Municipal Infrastructure Development Company

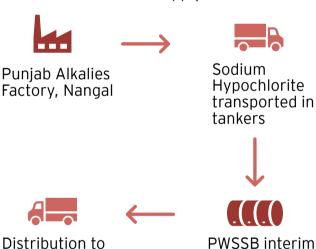


#### Safe water supply

Punjab Water Supply and Sewerage Board (PWSSB), another wing of PMIDC ensures the supply of safe drinking water in 62 ULB's of the State. In supplying safe and healthy water, the process of disinfection is the most critical one. Disinfection through chlorination was ensured by the Department at all the ULBs. To ensure enhanced safety, instead of using bleaching powder, Sodium Hypochlorite was used as it is more convenient due to its liquid form and chemical composition.

The department implemented an innovative model which was designed and executed in-house to monitor the Sodium Hypochlorite facilities real-time through an online web portal in the State. These facilities were situated at Patiala, Phagwara, Bathinda, Sangrur, Budhlada, Ferozpur and Gurdaspur.

#### Chlorination supply chain



storage facility

#### Sewerage Management

water works

In order to clean sewerage systems of various towns under PWSSB, 20 grab bucket machines were used. These machines were monitored through a mobile application as well as a web link through the control room setup at the PWSSB headquarters.

Sewerage workers were provided with proper PPE kits. The kit included dress, mask, gloves, helmet, goggles, gum boots etc. MPS and STPs were in operation round the clock. Monitoring of functioning of these is being done through 24 X 7 control room setup at PWSSB headquarters.

#### 7.3 Digital solutions to assist citizens

#### m-Seva collaborations

The DLG is responsible for the collection and management of property and water taxes in the ULBs. Due to the restrictions in movement during the lockdown, the total collections dropped to an extent of 80% in the months of April and May. To cater to this huge sum of unrecovered money, the DLG promoted the use of mSeva Punjab digital solution. The solution can be accessed through computers as well as hand held devices. The simple interface and user friendly options have been appreciated by the citizens. DLG also tied up with digital payment partners Bharat Bill Payment System (BBPS), PayTM and Airtel Payments Bank to provide an extended array of options to the citizens. Facilities such as use of multiple debit and credit cards, scheduling a payment, auto-debit and reward point in form cashback was available on these platforms.

As a first in the country, WhatsApp was used in the cities of Amritsar, Hoshairpur, Jalandhar and Zirakpur to attend and address the civic complaints and requests of the citizens. Citizens just had to send a 'Hi' as a message to 8750975975 to receive a response from the required section of the DLG. The use of WhatsApp was not limited to seek services from the DLG.

#### 7.4 Humanitarian touch

#### Support to SHGs

More than 575 Self Help Groups (SHGs) mainly comprising women from an urban poor background formed by the DLG have been active in the state, since the spread of Corona virus. These SHGs played an instrumental role in providing a healing touch to the public by operating their community kitchens, preparing food, making medically viable masks and gloves. This encouraging act by these SHGs mainly formed of urban poor women have been working day and night to prepare the essential items like masks, gloves and cooked food, biscuits, achar etc. In this lockdown period, ULBs has been successful in motivating these SHGs to render their services for the social cause, which would also help them to substantiate their income. SHGs received advance orders from the Government as well as from the private institutions for their masks at competitive rate of Rs. 20 to 25 per mask.

More than 4 lakh masks have been prepared by these SHGs. Usually, after 3 months of formation of an SHG, the department gives them Rs. 10,000 per SHG as Revolving Fund for inter-lending purpose. These SHGs have been situated at various locations in Punjab. The concerned ULBs at periodic intervals monitor the smooth functioning of these SHGs.

#### Water quality surveillance

Ensuring the best quality of drinking water was one of the prime agendas of the Department. To ensure the same, PWSSB formed a unique water quality surveillance cell to analyse various parameters of drinking water. The surveillance cell situated at Head Office monitored the samples of drinking and waste water with a uniform procedure involving innovative monitoring technology,



#### Cremation of abandoned bodies

Urban Local Bodies in close coordination with the District Administration were involved in identification and quantization of suspected cases of COVID-19. Likewise employees of the Urban Local Bodies have also performed the daunting tasks of performance of last

rites of the victims of COVID-19 in cases where the families of the victims have abandoned their bodies. This human practice was done throughout the state by the officers/ employees of the state during these testing time of COVID-19 menace.

#### Food, ration & essential supplies

The ULBs resumed new roles as providers and facilitators for arranging door to door supply of essential items for people who are reeling under the impact of COVID-19. Till date, the ULBs have arranged food for approximately 66 lakh people whereas ration has been distributed to approximately 45 lakh people. The ULBs also made the required arrangements for fodder for the cattle in the Gaushalas. In this regard, the ULBs were also authorized to spend from the Municipal Fund to ensure smooth functioning of al related operations. The efforts of the DLG in every ULB has been widely appreciated and the work cycle has been replicated by other departments .

#### 8. Department of Animal Husbandry



Livestock plays an important role in the rural economy of the State. Animal husbandry activities hold immense importance as they create self employment opportunities as well as subsidiary occupation to the weaker section of the society. As the services rendered by the Department fell under the umbrella of Essential Services, it assisted the citizens to increase the production of various livestock products like milk, eggs, meat etc. The Department also chalked out several unique program implementation processes for the development of various species of livestock maintain a strict compliance with the COVID-19 safety guidelines. Continuous efforts were made to further increase the milk production and other major livestock products by providing scientific breeding technique and effective health cover during the pandemic.

With sheer dedication, the Department achieved the following objectives during the lockdown phase:

- To improve the genetic potential of the livestock through scientific breeding
- To provide efficient and effective health cover to the livestock wealth of the State
- To provide improved feeding and management practices
- To provide effective extension services in the field of animal husbandry

The Department catered to meet the needs of the sector in every possible manner through its specialised disease diagnostic labs, veterinary vaccine institutes, centre of excellence facilities, semen stations, breeding centres, farms, hospitals and clinics throughout the State to provide during the pandemic.

# 11 lakh

Cattle breeders reached out in the State

12,000

Litres of nitrogen gas supplied to ensure uninterrupted artificial insemination 1489

Civil veterinary hospitals providing 24X7 services

#### 8.1 Services provided

#### Milk testing facility

The Government of Punjab has launched various campaigns under Tandrust Mission Punjab, across the State. Under this mission, the State Dairy Development Department set up special laboratories at district level to test the quality and adulteration of milk. This has helped to keep a check on the anti-social elements endangering the lives of the people by providing adulterated milk. The Department also deployed dedicated staff for milk testing after imparting proper training.

With the pandemic creating diverse concerns regarding health and immunity, access to unadulterated milk was assured by adapting an accurate milk testing service. Any consumer could avail checking of milk samples at the nearby district office or nearby training centre from 9 am to 11 am, by fetching 50 mL of unboiled milk. This test was done conducted free of cost and the result was provided promptly to the consumer.

#### Uninterrupted medical services

In Punjab, livestock farming is one of the main associate businesses of the farmers, besides traditional farming. Through these activities, the farmers provide the most important sources of animal protein which are also vital for human health like milk, meat and eggs. The State Government declared the lockdown and imposed the current exigency. Amidst the crisis, the livestock farmers strived to provide nutritionally rich and essential commodities like milk, eggs etc. In order to support these farmers which include dairy farmers, poultry, piggery and goat farmers, the veterinary hospitals and dispensaries were kept open for meeting the urgent needs of the livestock farmers.

Keeping in view the need for increased milk and other animal products for maintaining balanced health and immunity of the general public as well as current hardships being faced by the farmers, the Department decided to provide uninterrupted veterinary services as before. Additional teams were also deployed where required. Tele-consultation and home delivery of medicines were also initiated. The Department also used the various means of IEC to aware the masses about these services.

# 30 lakh+

Animals safeguarded through vaccination

### 22

District level Polyclinics provided emergency services

#### **Vaccination**

The State has a population of over 65 lakh animals and 11 lakh cattle breeders. The Department provided free vaccination to save the animals from diseases such as Haemorrhagic Septicaemia (Ghal Ghotu). Swine fever and Black guarter (Patt Soj) during the pandemic. All the vaccination services were provided free of cost. The novel initiative has been undertaken by the Department, in order to provide relief to the cattle breeders who are reeling under losses due to COVID-19. The main objective of this initiative was to save the animals from foot and mouth transmission to ensure zero impact on the products produced. Similarly, the PPR vaccinations for goats and Ranikhet vaccination for poultry were also provided free of cost. Vaccination services were provided at the medical centre with a vigilant check on social distancing and other mandated norms of safety issued by the Government. The staff and doctors were also equipped with masks, gloves and PPE kits.

#### **Artificial insemination**

The Department also continued to provide the services of artificial insemination for cattle and buffaloes during the pandemic. As artificial insemination semen straws can be kept safe only in the liquid nitrogen gas therefore the Department supplied 12,000 litres of liquid nitrogen to all the artificial insemination centres across the State. The decision was taken by the Department to maintain the quality of the semen and minimum hassle to the cattle owners.



#### 9. Department of Education

The purpose of education is to transfer and transform knowledge for the future generations so that they can transcend their lives and humanity as a whole. Punjab being a State dedicated towards innovation, inspiring contribution to industries and continuous growth of students, faced numerous challenges due to the outbreak of COVID-19. The time period between March to June was of utmost importance for the Department of Education, Department of School Education and Department of Higher Education as most of the examinations, declaration of results and placements were to be completed during this period.

The Departments designed and developed virtual interventions in order to provide access to creative educational modules that encouraged participation and interaction through e-learning in the best manner possible. The Departments also conducted internal capacity building of the staff through virtual training as well. Engagement with parents, prospective employers and other stakeholders were also initiated through tele-communication and virtual means. The Departments were also involved in relief activities and providing infrastructural support for the guarantine centers in the Universities.



# 10 Lakh

masks stitched and distributed by the students of ITIS

4,600+

students & teachers received IGOT training

# 1.05 Lakh 71%

World Record for 'Ambassadors of Hope'

students created a students of Class X passed the online test after one month of virtual training

# 5,000+

students trained virtually under various verticals of ITIs

# 1,200+

special educators trained to provide assistance to the differently-abled during COVID-19



#### **Department of School Education**

The Department of School Education holds the responsibility of managing the activities under Samagra Shiksha Abhiyan, Mid-day Meal Scheme, Punjab ICT Society (PICTES), MASHAAL, etc. The global pandemic COVID-19 disrupted the ongoing activities in the schools throughout the State. The challenge of continuing to teach was accepted and almost all the teachers immediately adopted innovative methods and practices to ensure that the academic, administrative and other relevant activities including guidelines for indoor sports activities were carried out with exceptional levels of dedication while maintaining safety precautions. The Department provided virtual classroom experience, declared results on the basis of Continuous Comprehensive Evaluation (CCE), extended dates of admission for new students, restructured school safety guidelines etc. The efforts of the Department were appreciated by the parents.

Residential Meritorious Schools of the Department offered to set up as Isolation Centres/ Quarantine Centres. The teachers were also deployed on COVID duties as per the requirement of the district administration.

# Department of Technical Education and Industrial Training

The Department of Technical Education & Industrial Training has been entrusted with the responsibility of imparting vocational training in Engineering and nonengineering trades under Craftsman training scheme to cater to the needs of the industry in respect of skilled workers. Similar to the NCVT at Central level, SCVT at the State level is responsible for integrated development of Vocational Training. The Department is also training technicians under the Craftsmen Training Scheme. These technicians are the backbone of the Industries and play a vital role in the Industrial Progress. The Department has also launched many programs for strengthening, modernization and expansion of the system. Despite the pandemic, the Department continued its efforts towards capacity building, expansion and quality improvement in the field of Industrial Training. Almost all ITIs in Punjab in collaboration with the various industries provided the required skilling avenues to students to enhance capability and capacity virtually.

#### **Department of Higher Education**

The Department of Higher Education is the administering authority in Punjab at undergraduate and postgraduate level. The department has promised to not only provide higher education but also to prepare better manpower. There are three universities, 232 Arts & Science Colleges, 114 colleges of education, 6 Colleges of Physical Education and 11 Colleges of law for graduation and post graduation in Punjab. The COVID-19 pandemic affected each educational institution limiting the movement of students affecting the timelines for reviewexaminations, internships, placements etc. The Department and its universities took steps to ensure smooth delivery of study material, counselling of students etc. The Department was also involved in assisting the coordination efforts of the District Administration and carrying out sanitization drives.





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#### 9.1 Department of school education

#### **Ambassadors of Hope**

- The Government of Punjab conducted an eightday long online video competition -'Ambassadors of Hope' with an aim to engage the students in participating in constructive activities during the lockdown.
- The video competition had over 1 lakh children participating in the competition
- The campaign also created a world record as it engaged around 2.5 crore people on social media platforms
- Since the students were sitting at home, the video competition required children to upload videos for the duration of one minute on any social media platform. The children were required to tag their videos with the hashtag #AmbassadorsofHope so that it could be viewed by the government and everyone in Punjab.
- The competition invited students from private or government schools across 22 districts in the State without any registration fee.
- Ludhiana sent 16,084 entries the highest number sent by any other district for the video competition
- Most of the entries were deep-rooted in Punjabi Ethos and Culture
- Three winners were selected from each of the districts in the state. The winners received prizes such as Apple iPads, Laptops, and Android tablets.

# I AM PARTICIPATING IN #AmbassadorsOfHope AMBASSADORS OF HOPE Campaign

#### Interventions undertaken due to COVID-19

19<sup>th</sup> March Postponement of exams 23<sup>rd</sup> March Closure of schools 25<sup>rd</sup> March Online education through Mobile App, YouTube Channel, Whatsapp 30<sup>th</sup> March Online orientation of school teachers and school heads 31<sup>st</sup> March Promotion of students of standard I to IV, VI,VII, IX & 15<sup>th</sup> -30<sup>th</sup> April Radio & TV channels hired to telecast Content



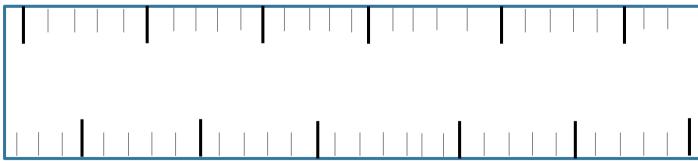














2<sup>nd</sup> May Helpline for online admission queries



23<sup>rd</sup> -27<sup>th</sup> May: Virtual Parent Teacher Meet



29<sup>th</sup> May Class V,VIII, X results declared based on CCE



3<sup>rd</sup> June 1 year session extension of 2200 associate schools



4<sup>th</sup> June Admission date for Class XI revised

#### 9.2 Department of Higher Education





#### Social commitment and sanitization

- As anxiety levels were running high and people had a felling of disconnect, MYAS-GNDU Department of Sports Science and Medicine imparted Tele-Physical counselling.
- All institutions across the state were advised to install thermal scanners and sanitizing equipment. The thermal screenings, behavioural change (wearing masks, gloves & physical distancing) and the adaptability to sync with the changed situation were promoted.
- Several Isolation Centers were also established inside the premises of various universities and colleges. The Civil Administration was also provided with every possible help in the form of manpower and equipment support wherever possible.
- Teams of experts/counsellors/ psychologists were made available to the students and employees to deal with any thought of anxiety, stress or depression.

# Special online program for differently abled students

- Research Centre for Technology Development for Differently Abled People, Department of Computer Science, Patiala conducted 2 important activities for the differently abled.
- On 13<sup>th</sup> May'20, the Center in collaboration with Samagra Shiksha Abhiyan organized a National Level Seminar on the theme of "Providing Education to differently abled persons during COVID-19 pandemic" with over 500 participants.
- After the grand success of this program, the Center organized a 8-day multi-category disability online National Training Programme for special educators and volunteers. Over 1,200 participants marked their presence in this training.

#### Box 1: Academic research

- All the institutions at the very onset of the lockdown adopted online teaching to ensure that the curricular interactions with students are not hampered. The Universities took a number of initiatives to make optimal use of e-learning tools including creating an exclusive webpage for these tools. In addition, e-learning platform was also used for internal evaluation, student internships and placement of students.
- The affiliated Universities also guided and mentored colleges affiliated to them to reach out to students through IT enabled platforms.
- The faculty, scholars and students were engaged by colleges and universities in a series of webinars providing the course related content. Experts from national institutions, Industry and judiciary participated in these sessions.
- Several ICT initiatives of MHRD, UGC and its Inter University Centers (IUCs), Information and Library Network, Consortium for Educational Communication (CEC) in the form of digital platforms were made accessible to teachers, students and researchers.
- The Universities have compiled all the eresources related initiatives in the form of econtent, MOOCs, e-learning software and applications available on NMEICT website. The information about e-content availability ad various UGC ICT initiatives like CEC (for UG courses), E-pathshala (for PG courses), SWAYAM online courses, UG/PG MOOCs, NPTEL (for Engineering courses) have been made available for the benefit of students.

#### 9.3 Department of Technical Education & Industrial Training

The Department of Technical Education and Industrial training has proactively participated in supporting the State. The Department deployed the ITI staff and several students as volunteers to make hygiene and safety equipment the essential workers during the lockdown.

The efforts made by the Department have been highly appreciated as it has helped the State provide masks, conduct online training for students to volunteer in containing the spread of the pandemic.

#### Production of masks

The Department took upon itself the task of motivating ITI students to stitch masks and managed record breaking achievement by stitching more than 10 lakh masks free of cost till date. Moreover, cloth for this production was procured through personal efforts of the ITI staff (through donations from Local Administration, NGO's, Industrialists etc.) These masks were then distributed amongst the Local Civil Administration, Health Workers, Municipal Corporations, Aasha Workers, Anganwari Workers, Farmers, Migrant Labourers and other needy persons (free of cost). All the exemplary work of Production/Distribution of masks has been done by around 4,500 girl students in about 78 Government ITIs with the support of principals and staff.



- The Department took the initiative to conduct online classes for the students of ITIs using video conferencing apps like Zoom and Webex
- NIMI shared an exclusive link to receive lectures in Punjabi. All the Principals of ITIs motivated their Instructors to effectively participate in delivering lectures on NIMI website as per syllabus. After preparing their presentation, the Instructors got themselves registered on NIMI portal for different time slots. To Impart training in these online classes, an average of 300 participants attended classes in one go. First trial class was successfully conducted on 20th May 2020.



 From 21<sup>st</sup> May 2020, the Department has been able to tap more than 5,000 participants during such classes. This further helped the Department towards the creation of E-Library. The lectures were also uploaded on the Department's official Youtube channel. These online lectures got recorded on the NIMI portal which will be further helpful for the students from other states as well.

#### Box 2: Economical automated hand sanitizer dispenser

Sh. Rajinder Singh, Welder instructor of ITI Ludhiana, with his two trainees Navneet Singh and Jagjit Singh made the IR Proximity Sensor based automated sanitizer Dispenser Machine that pours sanitizer on your hands when you lower down your hands beneath the outlet nozzle.



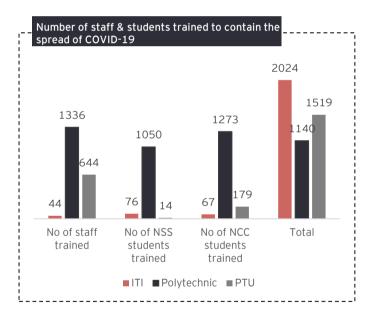
# MRSPTU & IKGPTU utilising the online learning modality

- The Technical Education Universities of Punjab were directed to take steps to ensure that education does not get affected during lockdown. Both the Universities were advised to use MOOCS using SWAYAM platform developed by UGC/AICTE for sharing online study content.
- Universities and affiliated colleges are conducting live video streaming of classes to run academic programmes smoothly for its students. The faculty members were asked to work from home and stream their video lectures to students. The faculty was also instructed to keep a record of attendance of students participating and share assignments/ quizzes etc. also for evaluation purposes.



# Students and staff trained to contain covid-19 pandemic by the the Department of Technical Education & Industrial Training

- The Department set up a team for the training of students as well as their mentors. This team collected data from all over Punjab and a plan was initiated for the proper IGoT training of students and faculty members of ITI, Polytechnic's & Engineering colleges in the State.
- The Department tried to train people so that they can also contribute to the community as frontline warriors and be available if the need arises. Time to time motivational lectures were scheduled to keep the morale of students and mentors high & tenacious.
- The Department also trained the NSS/NCC students of ITI, Polytechnic and engineering colleges with the basic courses.



# Box 3: Faculty members of government polytechnic colleges deputed as Special Executive Magistrates



The faculty members of the Government Polytechnic Colleges were deputed as Special Executive Magistrates cum Corona Vigilance Officers. The other staff was also assigned various duties by the district administration.

The various duties performed by these officers include Distribution of ration to the needy people, identifying foreign travellers/COVID-19 suspects and getting them quarantined, ensuring social distancing is being followed.

#### 9.4 Digital Education

The present scenario of COVID-19 required launching, digital/online education platforms to enable students to continue their studies. Under the edges of Digital/Online initiative, the Department of School Education, Punjab is providing online education to the students through virtual mediums *viz.*, Mobile App(s), YouTube, radio, E-books, WhatsApp and various DTH/Cable TV channels.

# EDUSAT content through satellite network (ROT)

In order to enhance the learning level of students through the provision of access to quality multimedia based e-content, the Department launched EDUSAT, a satellite based ROT. In remote areas that do not have access to teachers and internet, EDUSAT ROT has proven to be one of the best medium to provide virtual education training and verbal skill development. The sessions which were conducted in 3289 schools for classes 6<sup>th</sup> to 12<sup>th</sup>, included motivational lectures, competitive examination coaching, traffic awareness, health tips.

Due to COVID-19, the closure of schools caused to substitute the content broadcasted through EDUSAT provided the EDUSAT Punjab YouTube channel.



#### DTH TV channels

In the wake of the COVD-19 pandemic the Department of School Education took the decision of airing the subject oriented lessons on the DTH channel Swayam Prabha-20 by booking a 4 hour slot for 6th,7th,8th,12 Classes. It was also made available on DD free dish, Dish TV, Fastway cable and Jio TV App. The Department also booked a regular 7 hour slot on DTH/Cable TV channel DD Punjabi for classes 9th, 10th, 11th (Science), 12th (Humanities) and Primary (3rd-5th Classes)which was also made available on DD Free Dish, Airtel Dish, Videocon d2h, Tata Sky, Fastway Cable, Dish TV, Sun Direct and Reliance Big TV.

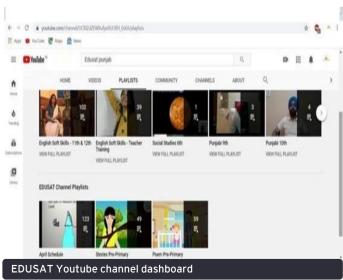


#### Radio

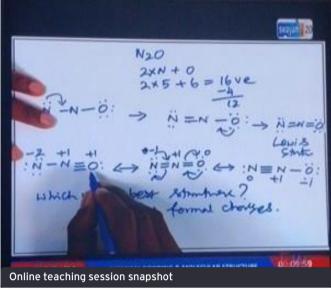
The Department also roped in a radio station to air lessons prepared by the teachers. The audio content was developed to include language based subjects which were aired on the *Akashwani* Radio at regional level.

#### **EDUSAT Punjab**

Considering the rampant usage of Youtube for learning purposes, the Department launched a Youtube Channel with 2000+ videos, which has recorded 19,668 hours of watch time with the participation of 19,155 viewers within a short span of time. The content was tailored to include subject matter and lessons on Hindi, English, Maths, Science, Social Science, Computers, Physics, Chemistry, Biology, Punjabi, Special Programs, Training Sessions, English enhancement Skills, for various classes.







#### Iscuela learn

With a goal to digitize the education and learning levels of children in public schools of Punjab, iScuela in collaboration with the State and Rotary India Literacy Mission has successfully digitalized all 19,272 government schools in Punjab. The application entails detailed subject explanation videos, animations, practical models, practice questions, assessments, presentations and pre-recorded classrooms sessions for classes 1-10 and can be accessed via television. The application has recorded 81,099 downloads and a usage of 10,95,04 hours since its inception. The preparation of 700+ topics for 11<sup>th</sup> and 12<sup>th</sup> grade in tandem with the new application is currently under progress.

#### E-book distribution

The lack of physical access to books and study material created a need for e-books during the lockdown period. E-book distribution has been used by the teachers and students having internet access. A regulated monthwise eBook distribution through Google Drive helped the students to access the content in different forms. The content was made easier for the students to download and study class specific syllabus. A planned day/week/month-wise curriculum was developed to bring uniformity in the teaching/learning process. The teachers have also utilized Whatsapp for the distribution of content, assignments and other information on a regular basis.

#### Online learning platform

The COVID-19 exigency caused a disruption to the regular classes and school curriculum due to which the schools conducted online classes through various digital platforms that enabled to continue teaching.

#### Computer labs and smart classrooms

Across the State, 6,130 Government Schools have been provided with well equipped computer labs. Further, 4,170 Multimedia Devices *viz.*, LFDs (large front display), LCDs, KYANs have been provided in schools to enable joyful learning for students. Additionally, 8,061 Smart classrooms have been set up and 5,594 smart classrooms are currently under progress. The progress in access to digitalized infrastructure has provided the government schools to virtually function and consistently educate the students.

#### 10. Department of Employment

The GoP has proactively initiated steps to provide access to employment opportunities to the public, through the Department of Employment Generation and Training. Many programs have been launched by the GoP under the Punjab Skill Development Mission (PSDM), Punjab Ghar Ghar Rozgar and Karobar (PGRKAM) and District Bureau of Employment and Enterprises (DBEE). Candidates are provided free training under various skill schemes of Gol and State sponsored schemes viz., Pradhan Mantri Kaushal Vikas Yojana (PMKVY), Deen Dayal Upadhyay Kaushal Vikas Yojna (DDUGKY), National Urban Livelihood Mission (NULM) and Punjab Heritage & Tourism Promotion Board (PHTPB) etc.

The global pandemic has caused disruption of regular activities, resulting in loss of employment for large sections of society. Due to the lockdown and to prevent gathering of crowds, GoP has undertaken implementation of virtual interventions to assist students and jobseekers for more employment opportunities. These interventions include provision of webinars, organising video conferences, online classes for private and government sector examinations, UPSC preparatory coaching, C-PYTE classes, virtual career counselling programmes, and employment related webinars.





# 7.4 Lakh

Candidates have registered on the Punjab Rozgar portal 3,900+

Employers have listed jobs on the Punjab Rozgar portal

13,000+

Candidates have been placed successfully in various departments and sectors

# More than 5,000

Candidates have participated in online career counselling sessions

50,000+

Candidates have registered on the labour link for placements

10+

C-PYTE camps are currently providing online training to registered individuals

#### 10.1 Punjab Skill Development Mission



- PSDM has directed all the training partners to train the candidates online for special training regarding handling of COVID -19 under Health Sector Skill Council.
- PSDM has distributed ~8,000 masks made by candidates trained by training partners.
- PSDM has initiated a pilot project of online skill training of 400 candidates in 2 sectors Logistics and Telecom.
- During lockdown, ~20,000 candidates were registered under various skilling schemes in 200 plus Skilling centres in rural and urban areas.
- 352 candidates trained in Health Sector have registered for providing support in quarantine facilities in Punjab.
- Hostel facilities of Multi skill Development Centers of Ludhiana, Bathinda, Hoshiarpur, Jalandhar and Health Skill Development Centres at Amritsar, Patiala and Faridkot have been converted to Quarantine Centres.

Till March, 2020 before the COVID-19 outbreak, 58,132 candidates were trained of whom 39,927 were certified and 21,589 were placed. However, 27,451 candidates were still undergoing the training process, which has now been paused. The certification and placement activities of earlier trained candidates has also been paused for the time being.

Advanced Microsoft Excel	Re.1	Duration: 3 Hours	English	Introduction to Excel Format of a Vlookup, Micros, Filters, Conditional	
Name of course Offered By Tata Steel	Subscription fees	Session Duration	Language of teaching	Course Syllabus	
introduction to Soft Skills	Free	Duration: 3 Hours	English	Preparations before an interview Steps to follow to ensure success in an interview for a job  What are Soft Skills The importance of Soft Skills for success in our day to day life and for	
Interview Skills	Free	Duration: 3 Hours	English		
Resume Writing & Cover Letter	Free	Duration: 3 Hours	English	Process of creating a resume and a cover letter Structure of a resume Points to remember while creatin Structure of a cover letter Preparations before an Interview	
Group Discussion	Free	Duration: 3 Hours	English	Introduction to Group Discussion Format of a Group Discussion Do's and Don'ts	
Name of course Offered By TCS iON	Subscription fees	Session Duration	Language of teaching	Course Syllabus	

Kapurthala DBEE webinar snapshot

#### 10.2 Punjab Ghar Ghar Rozgar & Karobar Mission

The GoP has provided a digital platform pgrkam.com that allows jobseekers and employers to register and interact. Jobseekers can view and apply for jobs, employer can post vacancies and get suitable candidates.

The GoP under Punjab Ghar Ghar Rozgar & Karobar Mission provides coaching, training for government and private sector jobs, including training in soft skills, communication skills etc., for providing free of cost training/coaching to candidates looking for jobs in the government/private sector. Due to the pandemic, free 'online' classes for coaching and training for government and private jobs have been conducted in 6 districts namely Rupnagar, Amritsar, Bhatinda, Ludhiana, Patiala, Gurdaspur and in total 315 candidates attended the classes. In free online classes, candidates are provided with free online reading material and they interact virtually with the subject matter experts for guidance.

At present 7,45,857 job seekers, 3,944 employers have registered on this portal and more than 4,800 vacancies have been put on the portal till date. As a proactive outreach activity, SMSes have been sent to the mobile subscribers database of Punjab to register on pgrkam.com or send the name of their district to 7888695438 in case the recipient of the SMS wants a job or can give a job.



Name of the district	Name of Training Partner	Number of participants
Amritsar	M/s Vocman	50
Bathinda	M/s Nitcon	50
Rupnagar	M/s Eduzphere	68
Ludhiana	M/s Kruttika	60
Patiala	M/s GCS	55
Gurdaspur	M/s MBD	32

#### 10.3 Involvement of DBEEs

The pandemic caused a severe loss of careers and career opportunities for the citizens. The facilitation of employment became a prime priority for the State. The career counsellors of DBEEs of all 22 districts of the State made efforts to mobilize, guide and counsel the students telephonically and through online means like WhatsApp and video conferencing. By the end of the second week of the May 2020, 2995 candidates participated in these online counselling programs. Career Counsellors are also working with Punjab Government State Helpline 18001804104 to deal with stress, anxiety, tensions and various other mental health related issues of the public that are arising due to COVID-19.



#### 10.4 Interventions

# Facilitation of employment opportunities

#### Digital interaction

#### Virtual activities



Informal labour



Helpline



Online job mela



Skilled/semi-skilled vouth



Online counselling



Block level employment counselling



Self-employment



QR code for manpower supply



E-libraries

# Box 4: Online class participant feedback



Jaspreet Kaur, a final year commerce student expressed her gratitude towards the proactive efforts taken by the GoP and the DBEE for providing free coaching for the students for the public sector examinations. She shared that the classes have proven to be very beneficial and has also appreciated the cooperation of the teachers for clarifying doubts of the students.

# Box 5: Special arrangements for job placements at DBEE, Pathankot



The DBEE Pathankot selected 24 candidates to be dropped at Hero Edutech Ltd. in Ludhiana for which a special bus was arranged by the DBEE Pathankot under the chairmanship of worthy DC & ADC(D)-cum- CEO to facilitate the candidates to reached at Ludhiana in factory . Interviews were conducted by the employer with the collaboration of DBEE Pathankot, over a period of 3 days in which total 60 candidates participated, out of which, 24 candidates were selected.

#### Institutionalised coaching centres

#### Maharaja Ranjit Singh Armed Forces Preparatory Institute

This institute provides coaching for National Defence Academy exams and has switched to digital platforms by conducting online classes for class 12 CBSE students for NDA entrance coaching.

#### Mai Bhago Armed Forces Training Institute

This institute has also started online courses for its 65 lady cadets for AFCAT & CDSE entrance exams and SSB interview. They also carry out personality development workshops, confidence building and motivational training seminars via Zoom, Skype, WhatsApp, email and social media platforms.

#### **C-PYTE**

The Centre for Training and Employment of Punjab Youth (C-Pyte) is the brainchild of people of Punjab who are dedicated to maintaining the integrity of the State. The major beneficiaries of the scheme are the rural unemployed who are given preselection training for joining the Army, Central Para Military Forces, besides imparting technical training to upgrade their skills. In order to inspire and encourage the youth to upgrade their skills in different trades for making them more employable and to motivate the youth to join the national mainstream, the Centre for Training and Employment of Punjab youth was established on 19<sup>th</sup> Aug 1990. A total of 2,23,941 youth from 1990 to 2019 were trained by C-PYTE, of which 1,12, 194 have been placed in the Armed Forces.



#### **INFORMATION & PUBLIC RELATIONS, PUNJAB**

PUNJAB EMPLOYMENT GENERATION DEPARTMENT PROVIDING FREE ONLINE CAREER COUNSELLING & COACHING FOR COMPETITIVE EXAMS DURING LOCKDOWN

- 2995 candidates participated in the online counselling programs Till the end of second week of May
- Counsellors working with Pb. Govt. Helpline 18001804104 to deal with stress, anxiety, tensions and other mental health related issues of public arising due to COVID-19
- Video conference and webinar programmes being organised for career counselling of Matric and 12th standard passout students by DBEE's
- Maharaja Ranjit Singh Armed Forces Preparatory Institute and Mai Bhago Armed Forces Training Institute providing online coaching to cadets
- 14 Cpyte Centers across the state providing online training to youth for Common Entrance Exam of ARO Recruitment Rally 2020

Employment campaign poster for public and private sector jobs

Due to the pandemic, C-PYTE has commenced online training in all camps, mainly focusing on imparting core values including self-discipline, spirit of national integration, secularism, dignity of labour and work culture, thereby making the youth more employable in various fields. 14 C-PYTE centers all over Punjab are currently providing online training to 1,668 youth for Common Entrance Exam of ARO Recruitment Rally 2020. Online coaching for written competitive exams in subjects like Maths and General Science is also being provided.





# Facilitation of employment to informal labour seeking jobs

In order to address the employment crisis of informal labour, the DBEEs directed each district to create a web link for the registration of unemployed individuals looking for labour work, while simultaneously integrating registration for employers looking for hiring labourers. This was enabled by the ADC-cum-CEO, DBEE by allocation of teams consisting of officials from DBEE and Departments of Rural Development, Labour, Industry, excise and taxation.

#### Process enablement

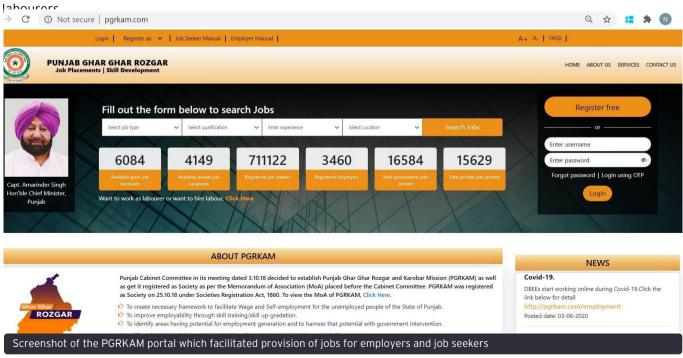
These teams were directed to map available labour through survey, site visits to labour chowks, contacting village sarpanches, consulting with Industrial Trade Associations to enquire on availability of labour. Additionally, data available from 2018 of 3,63,919 persons working in the informal sector was also included in the database. The team was provided a target to collect information of 2,000 individuals within a 15-day time frame and upload the collected data on the links of the respective districts. Parallelly, the team also conducted meetings with various Industrial and Trade Associations like FICCI, CICU, CII, and BDPOs. They were successful in collecting details of 2,000 employers, with whom the labour data collected shall be mapped to accelerate provision of jobs to

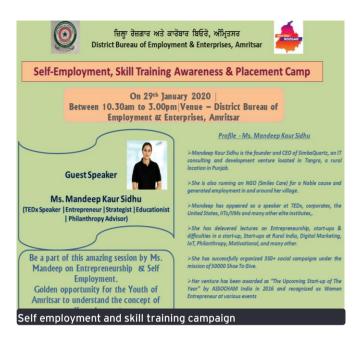
# Facilitation of employment to educated and semi-educated youth

Each district was provided a target of 1,000-1,500 jobseekers that had to be employed and details had to be uploaded on the portal. The jobseekers could be contacted through educational/technical institutes, CSC/VLEs, announcements through BDPOs, sarpanches and existing ones were contacted through the portal. The employers were to be contacted through the support of different departments - Industries, Labour, Health, Technical education, Defence Welfare and Industry Associations. Within the given timeframe of 15-days, each district was instructed to upload details of a minimum of 100 jobseekers per day.

#### Process enablement

A digital platform for job seekers and employers was developed, through which registration was enabled at zero cost. The job seekers and employers could register online on URL <a href="https://www.pgrkam.com">www.pgrkam.com</a>. The job seeker could search for jobs both in public as well as private sector and apply for a job suitable to her/ his eligibility. Similarly, the employer could register on the portal, post a vacancy and select the human resource as per the requirement. As of now, 7,47,854 candidates and 3,944 employers have registered on the portal.





# Facilitation of self-employment to uneducated youth

In order to facilitate self-employment opportunities to uneducated youth, the district officials were directed to create a registration link that facilitates provision of current loan schemes in the district to interested applicants. The details of the live scheme included schemes of GoI, GoP and those facilitated by Lead Bank, SC Corporation, BACKFINCO, Digital Industry Centre, Dairy Development and Agricultural Department for the purpose of self-employment. The districts advertised the registration across all media and virtual platforms and mobilize a minimum of 500 applicants within the 15-day window.

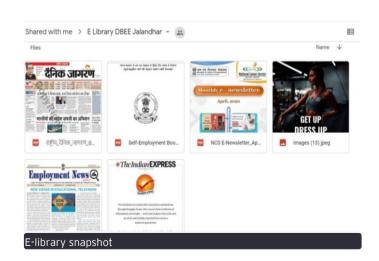
#### E-Libraries launched by DBEEs

The DBEEs launched digital libraries during the lockdown period, which can be accessed on various platforms including desktop and smartphones through the e-library link on Google drives created by DBEEs. The content on these E-libraries was regularly updated. The innovative concept of e-Library was promoted through social media platforms and digital platforms such as WhatsApp and Facebook. Information stored on the libraries include E-Books, employment news, newspapers in Hindi, Punjabi & English, magazines, etc. As per the feedback of the DBEEs, e-libraries have been accessed by thousands of individuals seeking employment, college and school students.



#### Online counselling of applicants

Online counselling facilities were organised in each district, through which the counsellors undertook 10 groups with 20 applicants per session for an hour for group counselling session and additional one-on-one 20-minute counselling sessions for 50 applicants for 15 days. The districts utilised social media platforms and news channels for proactive promotion of the counselling facility for job applicants. Online career counselling commenced on online platforms such as Zoom, Google Meet, YouTube streamline., where more than 5,000 candidates have sought online career counselling.



#### Establishment of helpline at DBEEs

The DBEEs created a district wise helpline/email-IDs operational from 9 AM to 5 PM on all working days. The candidates can seek help/guidance on various employment related issues on the give email IDs. For awareness generation on this initiative, wider publicity was given in press. Till date approximately 5,000 people have approached the Department through these helplines

# Development of QR Code for manpower demand

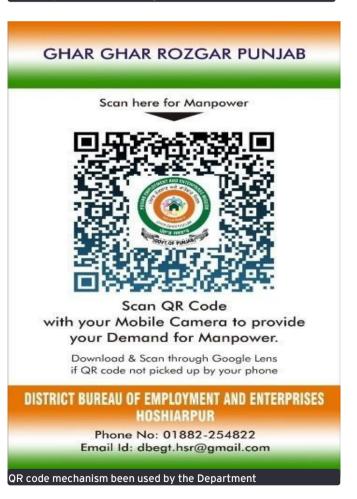
A QR code for requisition of manpower by the employer to DBEE has been developed under the guidance of the GoP, which enables the employer to scan the QR code and share his/her demand immediately. This has proven to be mutually beneficial to employers and employees across the State. The Department of Employment Generation also organized 13 webinars in which 2,362 candidates participated. Similarly, 21 video conference were organized with participation of 985 candidates.

# Setting up of employment facilitation and counselling facilities at Block level

The Rural Development Department nominated employment and counselling facilitators basis active participation of Block Development and Panchayat Officers. The Block Development and Panchayat Officers were the nodal officer for monitoring the 3-day training program conducted by the DBEE. The training primarily focuses on the various services offered by the DBEE and various schemes run by the Government for the welfare of unemployed youth.







#### 11. Department of Labour

The main objective of the Department of Labour is to maintain industrial peace for better industrial relations between workers and employers through investigation and settlement of industrial disputes. It needs to ensure that production in the industry goes on uninterrupted so that there is no loss of working days, and that strikes and lockouts do not occur. Apart from this, the Department implements various Acts and Labour Laws enacted by Government of India as well as by the State.

During the pandemic, ensuring safety, good health and livelihood issues of workers became prime importance for the department. Working in close coordination with the Building and other Construction Workers Welfare Board, Punjab, INR 6,000 was transferred to registered live construction workers through direct beneficiary transfer. The labour department officials in districts coordinated with the district administration and collectively arranged for their movement through Shramik Special Trains and by buses to move migrant workers, pilgrims, tourists, students and other persons stranded at different places due to the lockdown. Labour department officials were tirelessly engaged in the ration distribution work for the migrant labourers who were camping in the Labour Camps setup by the District Administration.

#### Box 6: Key stakeholders

#### MHA

MHA discharges multifarious responsibilities such as - internal security, border management, Centre-State relations, management of Central Armed Police Force and disaster management. MHA issued several guidelines, advisories and SOPs that were followed by the Department of Labour, Punjab to manage the pandemic.

#### Department of Labour

Providing for basic amenities, financial support and travel arrangement for labourers. During the pandemic also, they arranged facilities for the labourers.

#### BoCW

The main objective of the Board is to register construction workers and provide them financial benefits under various schemes. Financial assistance to the live registered construction workers was provided by BOCW.

#### District Administration

Every actionable practice related to the safety of labourers is carried out in close coordination with the Officials of District Administration including DCs, ADCs, SDMs and NGOs.

#### 11.1 Labourer support and registration

Following panic and confusion after the curfew imposed in the State on 25th March'20, many labourers started returning back to their parent districts. In an order issued by MHA on 29th March'20, it was directed to the States to provide for adequate temporary shelters and provision of food for the labourers wherever they are and not to allow cross-border movement. Adhering to the orders, the GoP set up a State COVID-19 Control Room and established a central portal in assistance with Department of Governance Reforms and started the registration of stranded persons and migrant labourers and setting up of temporary labour camps with adequate provisioning of basic amenities like food, water, sanitation etc. Management of movement of such a large labour force filled with ambiguity, anxiousness, fear and helplessness was well anticipated by the staff of the Department. Special emphasis was given on making the labour feel safe and re-assuring no harm has been caused.



# INR 18 Lakh

Online entries scrutinised

# INR 10 Lakh

Floating population of migrant labourers handled

# INR 6,000

provided to registered BOCW members

#### 11.2 Registration process for outstation movement

**EC** Material

The respective District Collectors, Officers of the Labour Department used the traditional (SMSs, word-of-mouth) and modern tools (social media, ads) of communication in reaching out to the migrant labour communities. The prime motive was to reach out to every migrant labourer in the State. It ensured that no labour is left behind in receiving the department's messages.

The registration process for migrant labourers had to be done on the State Labour Portal. The registrations were to be done online using the link-covidhelp.punjab.gov.in/. Anticipating the challenges with access to the internet and limited computer applicability, the same was done using the COVA mobile application.



- The data was further shared with the Railways and authorities of other states
- In addition to this, the data was also used for further analysis (for instance, estimating number of trains)

To assist the migrant labourers with any guery related to their employment, travel, registration status, financial support etc., a dedicated helpline was available with 20 officers working in shifts. Labour officers from different zones shared the responsibility of working in 3 shifts and attending to all queries, concerns and general doubts.



**C**VA











#### 11.3 Additional services provided in labour camps



#### Food distribution

The Department of Labour in close coordination with the District Administration and Local NGOs provided for the food kits in the form of dry ration and cooked meals. In Ludhiana, Jalandhar, Pathankot and Amritsar Districts, Labour Department Officials tirelessly distributed ration to the migrant labourers who were in the shelter camps setup by the District Administration. Each ration kit comprised of wheat flour (10 kg), sugar (2 kg), and dal (2 kg).



#### Arrangement of Shramik train tickets

The Labour Department officials in coordination with the district administration arranged for Shramik Special Trains to move migrant workers, pilgrims, tourists, students and other persons stranded at different places due to the lockdown.

# 9 Lakh+

labourers registered in Ludhiana

# 2 Lakh+

labourers registered in Jalandhar and SAS Nagar

# 1 Lakh+

labourers registered in **Amritsar** 

Considering the uncertainties associated with COVID-19, the fate of migrant labourers seemed bleak. With the MHA directing the states to offer financial assistance, the Punjab Building and other Construction Workers Welfare Board was the pioneer in transferring the sum of 173.74 crores INR through two instalments of 3000 INR each to 28,92,83 registered live construction workers in March 2020 and April 2020 which was the highest financial relief provided by any State government of the country.



# How to become a member of building and other construction workers welfare

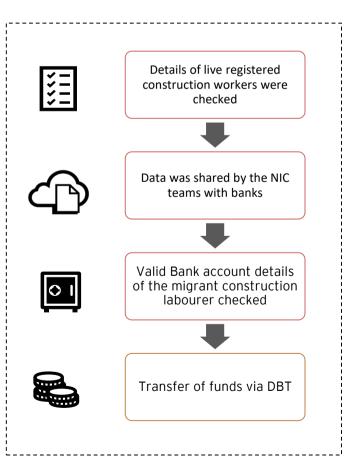
- Age must be between 18 to 60 years
- Should be involved in construction work within Punjab for a minimum period of 90 days
- Online registration at bocw.punjab.gov.in
- Registration can also be done at Sewa Kendra (Service Centre) by paying Rs. 25 as one time registration
- INR 10 per month as contribution

# Registration discontinued during lockdown

Fresh Registration of the BOCW, Punjab was stopped during lockdown between 1st April'20 - 14th May'20. After the reinstatement of the registration services from 15th May'20, almost 1 lakh approvals which were received are still continuing.

The following steps were followed in the distribution of the financial assistance:-

Figure 2: Comparison of financial assistance provided to labourers across States/cities 7000 6000 6000 5000 5000 4000 3000 2000 2000 1000 1000 Delhi Mumbai Punjab Uttar Pradesh



#### 11.4 Reflections



#### Non- updation of bank account details

There were many construction workers who had not updated their account details with the board office. Apart from that, many also did not get their renewals done on time. As a result, the relief amount of INR 6000 could not be credited to their accounts due to time taken by the bankers as well as the district labour officials in tracking the workers. Though with the earnest efforts of the department, account details of many were updated timely and benefit was extended. It is a learning that the disbursement process which gets delayed in such cases can be expedited provided random exercises are done by the office in checking their details.

#### Inadequate shelter homes

After many people lost their jobs, especially the daily wage labourers, they couldn't afford to stay in rented accommodation as they couldn't pay for the rent in the absence of any wages. However, there has been a shortage of permanent labour shelters with good facilities to house them. The department had a few Industrial Sheds which were either incomplete or in a bad shape due to poor maintenance and could not be used for making the stranded stay there. Hence, there was a need to setup such facilities to mitigate any exigencies if arise in future. As a learning, the Labour Dept. must evaluate the options to setup permanent shelter homes with good maintenance facilities in the State.

# No data set for other informal sector of labour

There was no updated dataset to map people in the urban informal unregistered sector like autorickshaw drivers, vendors, domestic workers, people doing other small time daily jobs etc. who would have also needed direct financial assistance, like the way it was given to construction workers. This may be due to the absence of any state specific schemes for such category of persons. Accordingly, there is a need to map data of informal sector workers to come up with specialised schemes targeting such segments of the society. Department of Finance may also extend Budgetary support for such schemes.

#### 12. Department of Transport



The Department of Transport has been a pioneer in providing swift services to citizens in various forms. The Department was one of the most active departments in terms of discharging its functions and duties during the global pandemic. With the Rail and Air routes been asked to shut its operations to minimise the risk of transmission of COVID-19, additional onus was put on the Department to manage and maintain the Travel via roads, as and when required.

Be it the supply of essential goods or transport of standed migrants, the Department performed its designated duties adhering to the norms and guidelines set by the MHA, NHAI and MoRTH. The Department, in close coordination with other State Departments carried out numerous operations in order to bring back the native citizens of Punjab.

Similar exercise was done to send the native citizens of different states out of Punjab. A stringent check on the movement of other vehicles other than for the essential services was also kept in collaboration with the Police and District Administration. The Department also engaged corporates and PSUs in the form of a CSR collaboration to provide temporary lodging facilities for truck drivers involved in essential services. One of the major roles discharged by the Department was the sanctioning of movement passes. Be it a normal citizen or a Government Officer, movement without a permitted pass was prohibited in the State. To ease our the hassle and comply to the social distancing norm, all the services delivered by the Department were made available online though several digital means.

2,50,000

Stranded migrants assisted with local transportation

4,500

Pilgrims brought back from Nanded

2,400

Labourers brought back from Rajasthan

#### 12.1 Services offered

#### Supply of essential commodities

In order to ensure seamless supply of essential goods, movement of vehicles carrying them was allowed and supported through every channel. The crew members involved in such services were imparted the required training to protect themselves and the ones nearby from COVID-19. The Department along with the Officers of the District Administration conducted special sessions and to reach out to every individual in involved in the supply of essential goods. Essential commodities included medicines, food products, milk, eggs etc.

The Department with the help of CSR donations from Indian Oil, NGOs and Gurudwaras also made provisions for several rest-houses for the crew members involved in the transportation of essential goods. Food and medical services were also provided in these rest houses.

The Department also extended support to other departments and agencies in the issuance of passes required to travel for attending to essential services.

#### **Exemptions**

Following the directives of MHA, NHAI and MoRTH, the Department exempted the following:

- Waiving off the road tax for public transport vehicles – goods as well as passenger – for a period of two months from March 24 to May 23
- Exemption from obtaining permits and paying required taxes till June 30 on public transport vehicles registered in other States used to ferry stranded workers from a different State

#### Post-lockdown activities

 225 buses were started from district to district point, in order to provide public bus service to the citizens.

Every COVID-19 related protocol and SOP was followed by the Department and its operational staff to ensure zero transmission of COVID-19.

#### Assistance to NRIs & expats

- 17 buses sent to New Delhi on 23<sup>rd</sup> May, 2020 to bring back 325 NRIs who arrived from Italy
- 70 buses and 100 taxis deployed at Amritsar and Mohali International Airport to ferry the incoming international passengers to the quarantine centres across the State

#### Assistance to pilgrims

- 31 buses were hired in bringing back 861 stranded pilgrims from Nanded between 23<sup>rd</sup> April, 2020 and 27<sup>th</sup> April, 2020
- 80 Integral coach buses were sent in addition to bring back the remaining 3660 pilgrims

#### Assistance to students

• 153 students were brought back from Kota using the Department arranged buses

#### Assistance to labourers

 62 buses were deployed to bring back 2436 labourers from Jaisalmer, Rajasthan

#### Assistance to migrants

- A special drive was launched to ferry 2.5 lakh stranded migrant workers to the nearby railway station in 5587 buses
- 499 migrants were transported to Uttar Pradesh using 26 buses arranged by the Department



225+

Buses resumed services after lockdown

170

Vehicles deputed at Airport for transporting passengers to testing centres 26

Buses sent to Uttar Pradesh with 499 migrants

#### 13. Department of Jail

In India, the Supreme Court ordered the release of certain detainees in order to avoid overcrowding in prison. The apex court also ordered several states and union territories to consider the release of prisoners on paroles in order to reduce overcrowding in jails. The states were directed to constitute high powered committees to determine which class of prisoners could be released on parole or interim bail. The instructions and guidelines were strictly followed by the State of Punjab to ensure minimum transmission of COVID-19 in jails across the State.

#### Temporary release of prisoners

The Puniab Government has promulgated 'The Puniab Good Conduct Prisoners (Temporary Release) Amendment Ordinance, 2020, in accordance with which the temporary release of the prisoners has been allowed beyond the maximum period of 16 weeks in a calendar year. The step has been undertaken keeping in view the crisis precipitated by the corona virus and with the intention to decongest the jails. The condition of the temporary release being availed of, on quarterly basis also stands waived. In compliance with the directions of the Supreme Court, around 11.500 prisoners have been released (till 21st July, 2020) on parole/interim bail since March, 2020 as per the recommendations made by the high powered committee constituted by the apex court.

#### **Special Jails**

As a preventive measure to keep the further spread of COVID-19 under check, several jails were converted to special jails. These special jails were converted to testing and guarantine centres for every new inmate/prisoner. Barnala and Patti Jails were the first jails to be converted. 412 inmates lodged in these jails were shifted to other jails of the State. Every new inmate was screened and tested in these centres and only after proper medical examination and completion of the guarantine period, they were transferred to other jails. Jails in Bathinda, Pathankot, Ludhiana and Women's Jail Ludhiana were also converted as Special Jails at a later stage, 202 inmates were shifted from District Jail Barnala to Central Jail Bathinda and 100 inmates were shifted to New Jail Nabha. 110 inmates shifted from Sub Jail Patti to District Jail Sri Mukatsar Sahib.

#### Preventive steps

- Random testing of inmates
- Posters and banners depicting causes, symptoms, prevention, screening and treatment were circulated in every Jail
- Prisons staff and medical officers were also imparted proper training to restrict any transmission of COVID-19
- The Jail premises were regularly disinfected to ensure the safety of prisoners
- Oxy-meters and sanitizers provided in every Jail
- 2 masks provided to every inmate

A state-level monitoring team and district-level monitoring teams were constituted to monitor the situation and address the problems being faced by the staff as well as prisoners in day-to-day functioning at the ground level.

#### E-mulakaat

To keep the further spread of contagion under check, interviews (*mulakaats*) were completely suspended. Instead, WhatsApp video calling and eMulakaat through ePrisons software were used to let the inmates interact with their family members virtually. This step was also taken to reduce the congregation of family members outside the jail premises.

#### Restriction on movement of Jail staff

Detailed instructions were issued to all the prison officials to avoid going to places other than their own homes . When on leave and in case of emergencies, the officials were directed to report their movement to the Head of the Jail.

1,00,000+

Masks supplied in iails

11,000+

Inmates released on parole

1300+

Staff trained in COVID-19 management

15,000+

COVID-19 tests conducted

7,000+

Litres of sanitizer provided

40 Jail

Premises disinfected regularly

# 6 Special Jails

Formed to screen and quarantine new inmates

#### 14. Punjab Bhawan (Delhi)

In March 2020, with the COVID-19 crisis escalating in Delhi, Punjab Bhawan was one of the first responders in the State to initiate safety protocols, taking into consideration the spreading infection and realizing the gravity of the pandemic. The Bhawan played a crucial role in ensuring the uninterrupted flow of information, communication and resources between the Central Government and State Government of Punjab. By setting up a dedicated helpdesk at the IGI airport, the Bhawan successfully facilitated the movement of Punjabi diaspora to various districts of Punjab under the Vande Bharat Mission. The movement of migrant labourers/workers/farmers was also arranged adhering the adequate safety protocol.

In addition to the movement of stranded people to their home districts, the Bhawan also ensured continuous and adequate supply of required medical equipment to the Department of Health, Punjab. The same was arranged through Air Cargo Transportation and was moved to Chandigarh for disbursal at various critical points in Punjab. The Bhawan also played a role in assisting logistics and communication (official letters, couriers etc.) between the Prime Minister's office and central ministries in Delhi and the Chief Minister's office and state ministries in Punjab.

To carry out all these functions effectively, sanitization measures, provision of masks, face shields, thermal temperature detectors, and sensitization of medical doctors in the dispensary was carried out inside the Bhawan.



A training was conducted by Punjab Bhawan for other State Bhawans and efforts were replicated. Due to timely and continuous efforts, not even one resident or guest who visited the Punjab Bhawan was infected with COVID-19.

The Resident Commissioner of the Punjab Bhawan was a part of the crucial group headed by Mr. P. Parameshwaran lyer meant to supply logistic support and maintain essential supplies in the State. With cooperation from other Resident Commissioners food supply from various States to migrant laborers was also arranged.

"Punjab Bhawan stood out as a strong connect between the centre and the state government during the COVID-19 pandemic. Each employee contributed their bit and displayed an attitude of the service before self. They helped out all the Punjabis in Delhi in these tough times. Kudos to all!"

- Rakhee Gupta IAS





285

migrant laborers were facilitated from Majnu ka Tila in Delhi to Punjab 30,000+

NRIs were facilitated at helpdesk established at Delhi Airport Ventilators airlifted

from Bangalore and dispatched to Faridkot

Medical equipment and emergency health material listed below were transported from Delhi to Chandigarh. Procurement as well as lifting through air cargo was carried out by Punjab Bhawan.

39,220	24,000	9,000	2,000	10.70.000
N-95 masks	Ply masks	C-Shaped masks	Gloves 6.5	<b>10,70,000</b> Tab Hydro
2,000	2,100	1,900	60,000	Chloróquine
Gloves	Coverall	Goggles	Tab. Azithromycir	١

#### Standard Operating Procedure for facilitation of Punjabi diaspora from Punjab Bhawan:

#### For the travellers:



Under the "Vande Bharat Mission", O/o Resident Commissioner established a Help Desk at the Delhi Airport to facilitate seamless movement of the Punjabi Diaspora to the various districts of Punjab



A 24\*7 Help Desk was established at Delhi Airport and was made operational comprising of four teams of 3 members each with one reserve team as a backup measure.



After arrival at the Help Desk, tourists were provided water bottles and masks by some NGO's and volunteers.



Detailed information regarding health status etc. was collected and assistance was provided by the help desk in filling up forms. Passports were collected to ensure that the NRI's reach their respective destination in Punjab and stay guarantined as per the COVID-19 protocol.



The collected passports were sorted out district wise every day and handed over to the Nodal Officer at Punjab Bhawan, New Delhi.



Nodal Officers from various districts were assigned to collect the passports and these were handed over to the respective Districts to be returned to the NRIs after completion of the mandatory quarantine period.

#### For the employees:



The employees were provided medical kits like gloves, face shields, sanitizers, and masks by the Medical Dispensary for ensuring their own safety.



Transport for the movement of the employees was provided by Punjab Bhawan maintaining safety protocols.



Food packets were provided to the employees which was cooked under hygienic condition in the Bhawan Canteen itself, as no food was available at the airport during the above mentioned period.



Police Personnel were also deployed for some time at the airport with the help of the Home Department to ensure law and order.



The complete documentation of nearly 30,000 Punjabi NRIs was maintained at the O/o Resident Commissioner Punjab Bhawan, New Delhi and later on dispatched to the NRI Department Chandigarh every Tuesday to be dispatched to the respective Districts destinations.

#### 15. Punjab State Power Corporation Limited



Given increased panic about the threat of COVID-19, the Government of Punjab announced a complete lockdown on 22nd March 2020, to combat the spread of COVID-19. One day after the state-wide lockdown was imposed, the government imposed Section 144 in the state, as an emergency measure to tackle the situation. Section 144 was imposed preventing more than 10 people from getting together at a public space at any given time. It was further ensured that essential goods and services like electricity, water and municipal services, banks other E-commerce such as home delivery, groceries will be operational. Enforcement of a complete lockdown, with exemption of some essential services, necessitated people to stay indoors and take proper precautionary measures in everyday life.

For the provision of essential services amidst curfew, Government of Punjab through its various departments also complied to the MHA order and issued its guidelines and advisories to ensure minimum transmission and maximum safety of its citizens. Conscientious efforts were made by the departments to ensure steady supply of essential services.

Punjab State Power Corporation Limited established a COVID Control room at the Head Office, Patiala on the first day of lockdown to ensure uninterrupted power

supply to all Healthcare institutions such as Hospitals, Medical Colleges, Dispensaries, other medical establishments, Public Health Laboratories and quarantine centres across the state.

Other than this, PSPCL has also been providing 8 hours uninterrupted power supply to 14 lakh farmers for the use of tubewells during the paddy season and 24 hours uninterrupted water supply to all the citizens of the state to avoid any disruption.

In order to ensure minimal contact amidst COVID-19 crisis, PSPCL appealed the customers to stay home and make payments for their electricity bills online. For the consumers who do not have access to internet, cash counters were also made operational where regular sanitization was being done and social



## 24 hours

Uninterrupted power supply to health institutions and citizens

# 8 hours

Uninterrupted power supply to 14 lakh farmers for use of tubewells during paddy season

# 2 helplines

were made operational to assist public with power supply issues



distancing was maintained. Consumers were denied entry without masks in the premises.

PSPCL frontline workers played the role of Corona warriors which ensured uninterrupted power supply and were available at all times for any sort of mechanical or power supply issue.

The Hydel projects of PSPCL successfully surpassed the hydel energy production target set by the Central Electricity Authority for the first quarter of fiscal year 2020-21 by generating 134.5% energy of the stipulated target.

#### **Enabling Industries**

PSPCL enabled the functioning of industries by the following measures:

- Provision of 24X7 uninterrupted power supply during lockdown.
- Discount of interest @1% per month on advance payment of electricity bills enabling consumers to earn interest @12%p.a. viz double the rate of interest on fixed deposit.
- Exemption of fixed charges for medium and large supply industrial consumers for 2 months from the date of lockdown period.
- Non disconnection of power on account of non payment of electricity bills.
- Provision of meter reading on trust facility for small power industries consumers by uploading their readings on the PSPCL website.

PSPCL also helped in revitalizing industries by modifying the two-part tariff scheme. Since the industries aren't operating at full capacity- relief was granted by allowing industry to choose between single-part tariff and two-part tariff for an year. The corporation also allowed bigger power users to access cheap power from the market on payment of wheeling charges.

#### Shahpur Kandi Dam and Ranjit Sagar Dam

The Shahpur Kandi Dam project, once commissioned, will reduce the outflow of the river water to Pakistan while benefitting both Punjab and Jammu & Kashmir. Initially, the construction work Dam was suspended due to the nationwide lockdown. Following relaxations in the lockdown 2.0 by MHA, the Chief Engineer pursued the case to restart the construction work at site and it was resumed on 28th April 2020.

All precautionary measures were taken at Shahpur as well as Ranjit Sagar Dam to contain the spread of COVID-19. This included the creation of a 40 beds isolation facility in RSD hospital, regular sanitization and disinfection of township, hospital, banks, ATMs, offices etc. A quarantine facility was also set up with the help of civil society group to cater to the need of 125 migrant labourers.

Kandi Canal Syphon Project in Hoshiarpur district also resumed its work from 24<sup>th</sup> April 2020 which was earlier halted because of COVID-19. All precautionary health, social distancing and sanitization measures were ensured.



#### SOP-: Management of mini bus-stands



Officer in-charge to check all the documents including the duty roaster of medical screening cell, data entry cell, PRTC cell, sanitization team, Police in charge and the contact list of nodal officers of districts.



Ensure presence of all concerned staff and interact with them.



Ensure availability of minimum 3 buses, 200 declaration forms and other stationary, 10 PPE kits, adequate number of masks hand gloves and sanitizers



No passenger must be allowed to come out of the bus without validation of required approvals.



The permission letter from the driver/conductor should be obtained, preferably without touching the hard copy. A photograph of the permission letter should be captured using the mobile phone camera.



The station of departure and the station of destination to be examined and sanitized.



In case, the vehicle is only to pass through for another State, the registration details and contact details of the driver/conductor only needs to be recorded.



The Nodal Officer of the district to activate medical and data entry team if the destination of bus is in Punjab.



Ensure from permission and other documents, whether the passengers are permitted for home quarantine or required to report to the guarantine center.



Passengers should be allowed to come out of the bus in small numbers adhering to the social distancing norms and must be queued up for medical screening.



## Contd.



After the medical screening, the passengers must be taken to the data entry cell for submission of declaration and registration in COVA App,



During the screening, Nodal Officer is to contact the driver/conductor to obtain the list of passengers to validate the details.



Ensure social distancing in the vehicle at all times. Additional PRTC to be used if social distancing norms are not possible to adhere to.



Ambulances to be kept on stand by in case of a passenger is suspected to be COVID-19 positive.



Sanitization of every vehicle needs to be ensured. In case of any suspected passenger, the area around concerned passenger must also be sanitized.



A slip to be given to the driver/conductor bearing the contact of the concerned district Nodal Officer and officials in case of any inconvenience.



The concerned Nodal Officer of the district to be provided with the details of the vehicle after its departure through WhatsApp or telephone call.

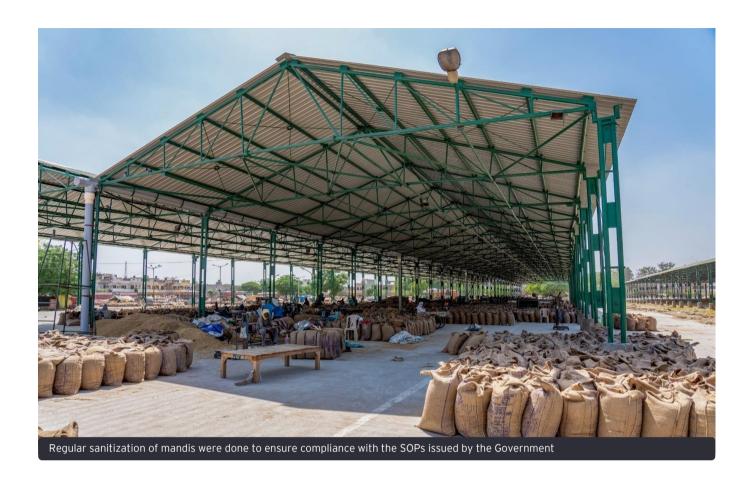
Agriculture and wheat procurement





# Chapter Flow

- Introduction
- Harvest, Mandi and Storage operations of wheat in normal course
- Harvest operations of wheat during COVID-19
- Process enabled in mandis for RMS 2020-21 wheat procurement during COVID-19 outbreak
  - Procurement of cotton, and sale/purchase of vegetables and fruits in wholesale mandis
  - Safety and sanitization protocols
- Other digital interventions
  - Champions of Punjab: additional factors
  - Reflections and learnings
- Key SOPs



# One of Asia's largest

wheat procurement operations-127+ LMT of wheat procured within 45 days

# 17.51 Lakh

Arthiya-Kisan e-passes issued to ensure seamless procurement of wheat

### More than 5 Lakh

people involved in the procurement process

#### Zero

cases of coronavirus reported on account of the procurement process

# 99.6%

wheat procured by Govt

procurement agencies

# 3000 + exservicemen

Guardians of Governance (GoG) monitored the procurement operations

# ~2200 additional mandis

**INR 27,000 Crore** 

economy through wheat

infused into the state

procurement

setup to ensure even spread of arrivals

#### 1700+ trains

were arranged for transport of ~50 LMT of wheat and rice to the consumer states

# **Agricultural Procurement**

## 1.Introduction



Punjab has long been a key contributor to India's agricultural landscape, providing the country with a much needed degree of food security. Important crops produced in Punjab include rice, wheat, maize, bajra, sugarcane, oilseeds and cotton.

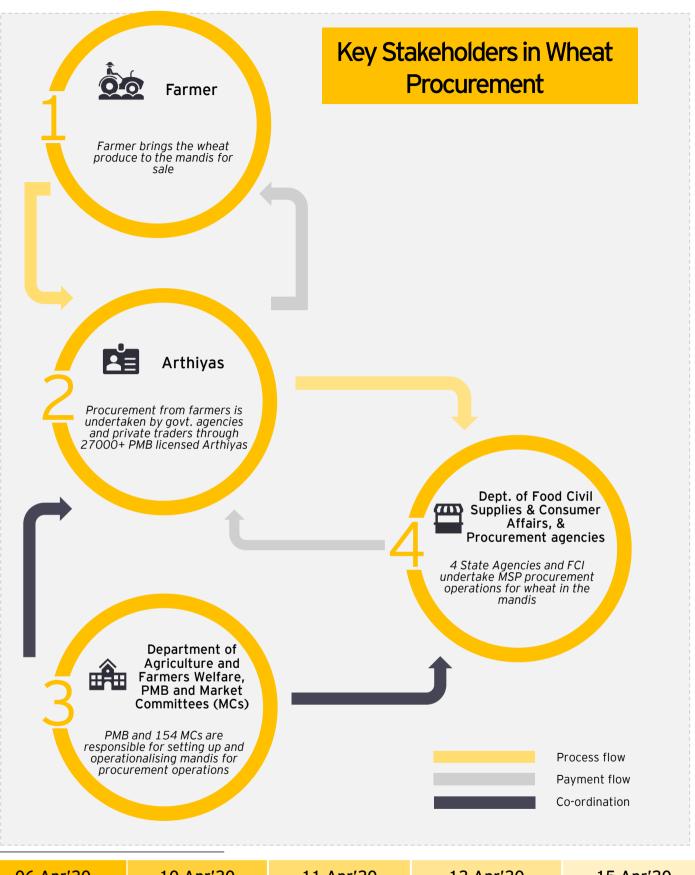
The COVID-19 outbreak in India came mere weeks before the wheat harvesting season began in the state. The procurement and storage of wheat stocks in Punjab amidst a nationwide lockdown and global pandemic was a complex operation. Much of the state population including farm labourers, farmers, transporters, market men, procurement agencies, State and District Level Administration are involved in the operations from harvesting and transportation, to procurement in the mandis and storage of around 130 LMT grains in the godowns

within the state and dispatching it to other states. By orchestrating a 'Procurement by invitation'

system, limiting crowding in mandis, making use of digital innovations and emphasizing the importance of maintaining physical distancing and frequent handwashing throughout, Punjab was able to conclude its wheat procurement season without a single COVID-19 case reported.

In the given window of 40-50 days, procurement is always a mammoth task. In 2020, the onset of the pandemic made the exercise all the more challenging, but also, more rewarding when pulled off successfully. The following chapter provides further insight into the experience.

24 Mar'20	28 Mar'20	31 Mar'20	03 Apr'20	04 Apr'20
NDMA issues directives about measures to be taken by states for the Lockdown <sup>1</sup>	Agriculture and Food Committee formed to ensure smooth and proper procurement of wheat <sup>2</sup>	Agriculture and Food Committee approves staggered procurement, use of pass and various COVID-19 protocols <sup>3</sup>	Agriculture and Food Committee proposed rice mills as additional purchase centres / mandis	CMM approves the Agriculture and Food Committee recommendations for procurement by invitation and increase in number of mandis. The mandate was 'Not a single grain in mandis must be left unprocured'



06 Apr'20	10 Apr'20	11 Apr'20	12 Apr'20	15 Apr'20
PMB issued SOPs for all stakeholders to be followed during mandi and storage operations <sup>4</sup>	Department of Agriculture released orders for sanitization of all Combine harvesters entering the state <sup>5</sup>	Wheat Procurement Control room at PMB commences operations	Online system of E-pass distribution goes live <sup>6</sup>	Start of Rabi Marketing Season (RMS) wheat procurement operations

## **Detailed procurement process**

1



Farmer

In Punjab, Gol provides MSP for the procurement of wheat and paddy through FCI and State Agencies. The finances for carrying out procurement at MSP by the State Procurement Agencies are provided by Gol through Cash Credit Limit authorized by Reserve Bank of India, channelled via State Bank of India led consortium of banks. The FCI arranges its own credit for procurement of its share of the stock.

The farmer's produce is set for sale in the mandi to the private purchasers and government procurement agencies. Procurement at MSP is open ended i.e. all the grains offered by the farmers, within the stipulated procurement period, conform to the quality specifications prescribed by Gol are purchased at MSP by the State Government Procurement agencies and FCI for central pool stocks.

2





Arthiyas (Commission Agents)

- Arthiyas are licensed and regulated under the APMC Act by PMB.
   They render service of immediate intermediary and aggregator in the process of procurement
- The procurement of the farmers' wheat and paddy by government agencies or private traders is undertaken at the mandis through Arthiyas, for which they are paid a commission<sup>5</sup> by the buyers, as notified in the APMC Act
- In addition to being the primary support agent for the farmer and facilitating the sale and purchase of wheat and paddy, Arthiyas also provide credit to farmers. They foster direct relationships with farmers, which typically span generations.



\_Image source: Indian Express

<sup>5</sup>2.5% of MSP in case of government procurement of wheat and paddy





Department of Agriculture and Farmers Welfare, GoP & PMB and MCs

- The Department of Agriculture and Farmers' Welfare, GoP coordinates the cultivation, harvesting of crops and supervises the working of PMB.
- The Punjab Agricultural Produce Markets Act 1961 (PAPMA)
   mandates establishment of new markets for agricultural produce in
   the state. This mandate intends to regulate the marketing of
   agricultural produce, eliminating malpractices prevalent in the trade
   and provide better facilities and amenities to the farmers for
   sale/purchase of agricultural produce.
- Under PAPMA, PMB and MCs are responsible for setting up mandis, providing amenities like auction platform, sheds, office building, canteen, roads, electrification, public health services and putting in place procedures to regulate the marketing of agricultural produce.
- PMB has setup 1820 mandis across 22 districts.

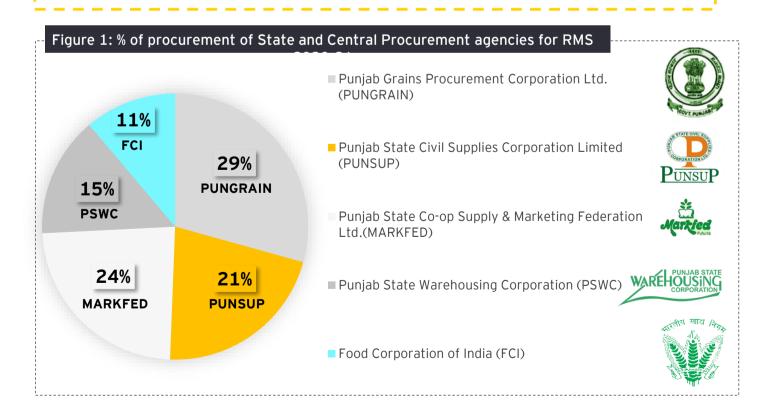
4





Dept of Food, Civil Supplies and Consumer Affairs, GoP & Procurement Agencies

- The Department of Food, Civil Supplies and Consumer Affairs, GoP is the nodal agency for coordinating procurement of paddy and wheat in the state.
- The department also coordinates the sanction of the Cash Credit Limit, supply and availability of gunny bales<sup>6</sup> and stock articles (tarpaulins, fish-nets, crates etc.) for procurement of wheat and paddy in the state.
- The State Procurement Agencies and FCI procure wheat at MSP from farmers in the mandi/ temporary purchase centres/ aggregation points (commodity markets) set up and notified by the State Government.
- The State Agencies preserve the wheat stocks under their custody for which they are paid carry-over-charges (COC) by FCI at the time of liquidation/delivery to FCI.
- The procurement and storage of huge quantity of wheat and paddy in Punjab, in a short time span, is a unique and complex post harvest operation



<sup>&</sup>lt;sup>6</sup> A typical gunny bale contains 500 Bags

# Harvesting of wheat and procurement seasons



Rabi Marketing Season and Kharif Marketing Season

- Wheat is procured in the RMS and the procurement period usually starts on 1<sup>st</sup> April each year and ends on 31<sup>th</sup> May.
- Paddy is procured in the KMS and the procurement period is usually notified from 1<sup>st</sup> October to 30<sup>th</sup> November each year.
- On procurement of wheat and paddy, the payments of MSP, dammi<sup>7</sup>, Government Fee, mandi labour charges, transportation charges, etc. are paid through the Agencies to the stakeholders as per Gol cost sheet issued for each procurement season.







<sup>7</sup>Arthiyas commission of 2.5% of MSP is called dammi

Sources of images (counterclockwise): <u>The Hindu, Tribune, Business Standard</u>

# 2. Harvest, Mandi & Storage Operations of wheat in normal course



Payment to State agencies by FCI on delivery as per Gol cost sheets and the agency discharges the CCL account.

Delivery of stocks to FCI for dispatch to consumer states



Harvested wheat is brought to Mandi by farmer



Arthiya's labour unloads the trolley and cleans the wheat heap using power cleaners



Preservation of wheat stocks by agencies at storage points



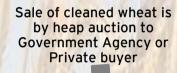
Contractor transports the wheat bags to storage points



Once bags are sewn these are stacked in the mandi in readiness of lifting by the transport contractor.



Normal Mandi





On sale, wheat is filled into bags and weighed by Arthiyas Tola8 and Paledars. The weighed bags are thereafter sewn.



On procurement, the government agency or private trader (as the case may be) process payment to arthiya online



online

<sup>8</sup>Tola, a licensee of PMB is employed by the Arthiya and he undertakes and is responsible for the weighment of the produce sold at auction by the farmer in the mandi.

Arthiya

transfers

payment

to the farmer

# 3. Harvest Operations of wheat during COVID19

## 3.1 Harvesting of wheat during COVID-19

Healthy wheat crop growing in 35 lac hectares promising bumper harvest of 182 LMT was about to ripe when the lockdown was announced. Following steps had to be taken to ensure a timely and safe harvest:

- Ensuring return of harvesters: At the time of the lockdown, a large number of combine harvesters were operating in other states, and got stuck there due to the lockdown. Therefore, Department of Agriculture worked proactively to facilitate the return of these harvesters to Punjab. For this purpose, a dedicated group of officers was constituted in the department, headed by the Joint Director. A Helpline was also set up for this purpose.
- Sanitization: Systems were set up for sanitization of combine harvesters and straw reapers with Sodium Hypochlorite solution.
- Tracking: Detailed guidelines were issued to ensure tracking, screening and supervision of all combine harvesters operating in Punjab. It was ensured that they all download and use COVA APP.

- Accommodation outside villages: Combine
  operators and workers were instructed to ensure
  that they stay and live in fields outside the village
  and follow Covid-19 prevention guidelines of
  maintaining social distancing, wearing masks and
  washing/ sanitizing hands.
- Medical check up: Screening of workers on the harvesters was ensured. Medical check up of interstate and inter-district moving combine operators were ensured prior to commencement of daily work.
- Social audit: Department teams were constituted to conduct social audits in mandis to enforce social distancing, ensure that people wear face masks and wash hands regularly.
- Monitoring access through passes: In order to monitor access to locations for harvesting, passes were issued to combine operators by the Department.











Social audit of Covid-19 prevention measures such as social distancing, sanitization and ensuring people wear masks in the mandis

# 4. Process enabled in mandis for RMS 2020-21 wheat procurement during COVID-19 outbreak

All mandi operations have unique challenges, however the RMS 2020-21 wheat procurement season came with constraints of COVID-19 protocols, curfew in the state that restricted movement, and necessity of maintaining social distancing. In view of these constraints, and to ensure health and safely of all, novel mechanisms had to be developed and deployed.

The following steps helped in the execution of wheat procurement operations that ensured zero COVID-19 cases due to the process.

- 4.1 Procurement by Invitation through Arthiya-Kisan e-pass
- 4.2 Reconfiguration of mandi capacity by demarcation of 30 ft x 30 ft blocks on the mandi yard
- 4.3 Increase in number of mandis in RMS 2020-21 procurement
- 4.4 Dedicated Wheat Procurement Control Room to assist and manage the operations
- 4.5 Measures undertaken by Agriculture and Food Committee



# Box 1: Payment to farmers for produce sold in the mandis during COVID

- Government of Punjab introduced Agriculture Produce Markets Rules 2020 to ensure electronic payments by the purchaser to the Arthiya within 48 hours of purchase and by the Arthiya to farmer within 48 hours of receipt of funds.
- Arthiyas continue to get their commission of 2.5 % 9 but are now required to electronically transfer to the farmers' account full purchase amount (i.e MSP amount in case of government agencies), deducting only the labour costs spent on unloading and cleaning of wheat of the farmer.

Image source: Indian Express

# 4.1 Generation and delivery of Arthiya- Kisan Passes

#### Background

The PMB's Market Committees generated the Arthiya Kisan passes and delivered these to the named Arthiyas who would further deliver it to farmers.

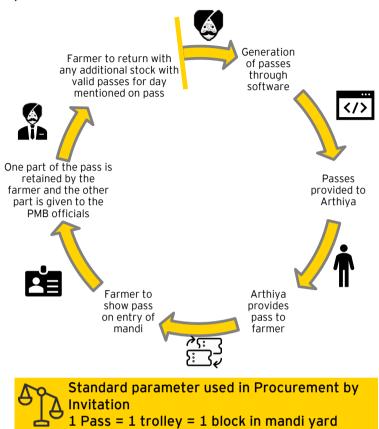
As the state was in a lockdown and under curfew, the Arthiya Kisan pass was a permit for the farmer to transport wheat from village/farm to the specific mandi on specified date mentioned on the pass. The farmer would also use the pass for travelling back from mandi to the village.



#### Features of the Arthiya-Kisan Pass

- The pass was issued in the name of the Arthiya basis their trading in yesteryears.
- The pass was embossed with a hologram/QR Code and a unique pass number in order to avoid duplication and misuse
- The pass was divided in two parts one to be retained by the farmer and the other part on arrival at the mandi was handed over to PMB official
- Unused passes would expire
- Passes were initially generated and distributed to the Arthiya 72 hours prior to the date of arrival mentioned on the pass itself. To ensure social distancing, this 72 hour timeframe was reduced to 24 hrs to effectively coordinate the pass generation with lifting of sold produce.
- Any forgery or tampering of the pass was subject to legal action. No photo copy of the pass was to be entertained for entry into the mandi.

#### Process of procurement being regulated through epasses



#### Managing the number of passes

Traffic in mandi was restricted by controlling the incoming load, as only one trolley was allowed with one Arthiya-Kissan pass. During the first three days of the procurement season, the daily passes were limited to a third of the total number of 30ft x 30ft blocks in a mandi. Once a pass was issued and used, it was expected that the block would be utilised and emptied (wheat sold & lifted) in 48-72Hrs. Thereafter, PMB released passes every day equivalent to availability of empty blocks in the mandis to maintain social distancing during mandi operations. Passes were moderated as below:z

- 1. Number of passes issued on 15<sup>th</sup> and 16<sup>th</sup> April 2020: Software generated passes as per Arthiya capacity. It issued minimum of 5 passes and in multiples of 5 thereafter, depending upon Arthiya capacity
- 2. Passes issued from 17<sup>th</sup> April to 24<sup>th</sup> April 2020: To ensure that all Arthiyas got passes, the system of issuing passes was changed to minimum of 5 passes to all available Arthiyas irrespective of capacity.
- 3. Passes issued 24<sup>th</sup> April 2020 onwards:
  During first 5 days of a week, passes were issued as per Arthiya capacity and for the remaining days of the week, passes were issued to all Arthiyas specially those who hadn't received passes during the initial 5 days of the week.
- **4. Fag end:** The issuance of minimum passes was reduced from 5 to 2 per Arthiya

#### Development of Software for Arthiya-Kisan Passes

Punjab has a vast and well established mandi infrastructure, that handles about 120-130LMT wheat and 170-180 LMT Paddy arrivals during each season, with a well entrenched Arthiya-Farmer system. The parameters for developing a procurement strategy were unique amidst the ongoing pandemic, thus the innovation (change from 'Procurement by Will' to 'Procurement by Invitation') had to be unique in itself as well. Key features:-

 An algorithm based online tool was developed to generate online passes (limiting human intervention/interference) based on PMB's historical data. Net gain/loss factor was calculated which was adjusted in the next day's allotment. i.e. the Arthiya who failed to get any allotment or got less than his entitlement for the day, was given priority allotment the succeeding day. The allotted passes were deducted from the balance capacity of the Arthiya.

- Previous year's trade was taken as a base to estimate the current year's capacity of the Procurement Centre and Arthiya, respectively.
- Each MC was given web-portal access to generate passes. All passes for the day were to be generated in a single attempt as per the ratio calculated by the system on the bases of Arthiya capacity.
- MC, on the basis of empty blocks in the mandi (while considering social distancing norms) generate the number of passes to be issued for the day for a mandi.

#### Challenges anticipated and resolved

#### Challenge 1



Limiting quantity of wheat to be allowed at each mandi

#### Resolution to Challenge 1

- Optimum requirement for a heap of wheat and its mandi operations was calculated and blocks of 30ft x 30ft were drawn on mandi yards. These blocks automatically reduced the optimum mandi capacity (calculated as per the no. of blocks in its yard).
- Limited arrivals ensured that the mandi was not overflowing with wheat at any time during the process

#### Challenge 2



Calculating Arthiya capacity to issue passes

### Resolution to Challenge 2

Arthiya Capacity: As the Arthiya-Kisan pass had to be issued in the name of the Arthiya, an objective and fair formula was devised to calculate the Arthiya Capacity, as follows:

- Arthiya's RMS 2019-20 business calculated at 100% or
- Arthiya's KMS 2019-20 business calculated at 60%.
- New Arthiya licensees or Arthiya who had not worked in the RMS/ KMS 2019-20 were also allowed to operate but with much reduced Arthiya capacity

#### Challenge 3



Digitization of Data & limited IT proficiency of staff

#### Resolution to Challenge 3

Based on the collected data, the software automatically generated the requisite number of passes each day for each centre in the names of the Arthiyas, calculated on the basis of Arthiya capacity.

The PMB sought assistance of Sevakendra employees and took onboarded 310 data entry operators at MCs to assist with managing and implementing the Arthiya-Kisan pass software. This helped in tiding over the staff shortage.

# 4.2 Reconfiguration of mandi capacity by demarcation of 30ft x 30ft blocks on the mandi yard

1 2 3

# Marking blocks of 30ftx30ft

To ensure social distancing during the mandi operation, considering the most substantial truckload would be 80-90Qtl, PMB calculated and fixed the block size at 30ft x 30ft- sufficient for mandi operation of ~110Qtl of wheat.

This marking of 30ft x 30ft blocks was done on the yards of all purchase centres

## **Mandi Capacity calculation**

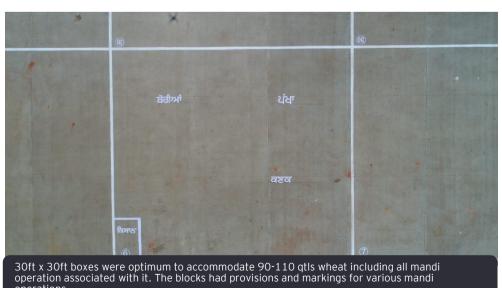
The spatial capacity of each mandi for the operational activities of unloading, cleaning, auction, weighment and storage ahead of lifting was calculated by the PMB on the basis of number of blocks of 30ft x 30ft drawn on the yard of the mandi

### Mandi traffic control

Traffic in mandi was restricted by controlling the incoming load, as only one trolley was allowed with one Arthiya-Kissan pass.

Passes for first three days were limited to one-third of the total number of blocks in a mandi. Once a pass was issued and used, it was expected that the block will be utilised and emptied in 48-72Hrs. Thereafter, PMB released passes every day as per the availability of empty blocks to maintain social distancing during mandi operations



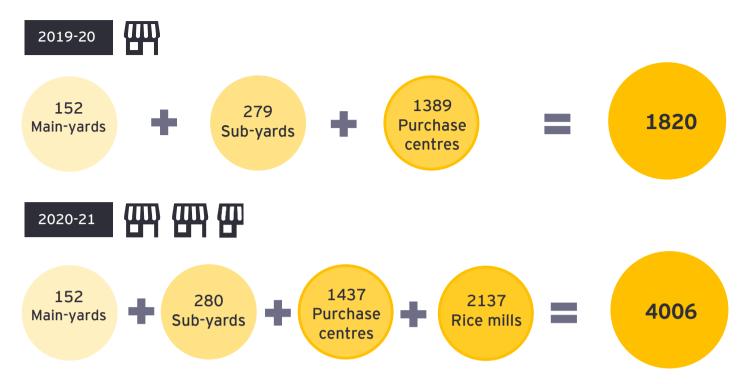


# Box 2: Farmer's experience

Farmer Parshotam Singh Mahal, from village Mahlan Jhalian, who came to sell his produce in District Rupnagar mandi on 16<sup>th</sup> April 2020, shared the following experience:

- He received the epass one evening before the mandi visit
- 2. He was given arrival time of 8am, which he adhered to
- 3. He was asked to bring dry produce
- 4. Within 15-20 minutes of his entry into the mandi, the labour started assisting in offloading the produce
- 5. Sanitisers were available at entry and with Arthiyas
- 6. Social distancing was maintained

### 4.3 Increase in mandis in RMS 2020-21



In view of the pandemic, it was imperative that wheat arrival at all the purchase points of PMB must be well-regulated so that the wheat arrival was evenly spread across the RMS 2020-21 procurement season i.e. at any given time the mandis should not be overflowing with wheat arrivals.

To ensure physical distancing, it was necessary to limit the farmer footfall in a mandi and also ensure that the farmer travels the least distance from his village.

Accordingly, mandis for sale of wheat were increased from the traditional 1820, with the identification and notification of the available rice mills and additional focal points. All the basic facilities related to drinking water, sanitation, electricity and manpower were put into place across various centres, as indicated above.



#### 4.4 Wheat procurement control room

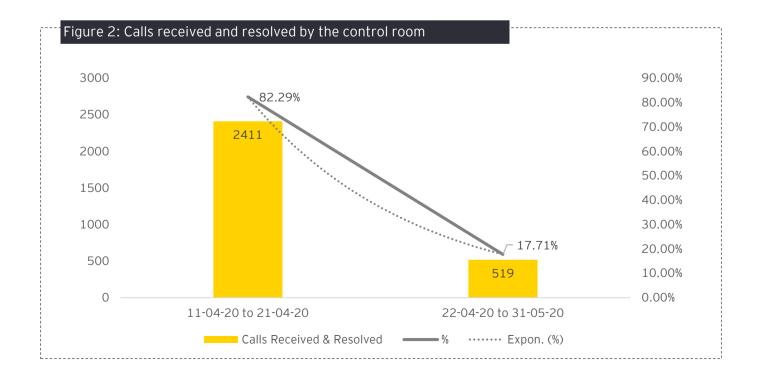
As a novel and unique IT based procurement exercise (changed from "by farmers will" to "Procurement by invitation") was being implemented amidst COVID-19, Arthiyas and farmers were justifiably apprehensive. In view of the lockdown, it was crucial to ensure that correct information was disseminated via social media and tele-calls to all the stakeholders.

The PMB set up a 30 member Wheat procurement control room, under the supervision of senior and experienced officers of the organization, which was made functional from 11<sup>th</sup> April 2020 onwards. Initially, the control room was flooded with queries for the first two days, however, working on a well defined path, the IT software and procedures stabilized, that reflected in the decline in queries directed to the Control Room.





- A wheat procurement control room was set up at the PMB office at SAS Nagar, with a 30 member team, dedicating one line and a operator to each of the 22 districts. The control room was operational from 7am to 8 pm daily.
- Queries were targeted to be resolved within 4 hours, and in any case before the end of the day.
- Helpline numbers for each district in the State were assigned and publicised in the media.
- Public awareness and promotion of the helpline facility was handled through print and digital media.
- The control room was designed to be the fulcrum of the procurement process, providing information to all stake holders, so as to familiarize them with the newly introduced 'Procurement by Invitation' system and the online generation and distribution of Arthiya Kisan Passes. It also served as a means of receiving grievances from the districts and addressing them in real time.
- The success of the control room operation can be attributed to the 100 percent resolution of all complaints in a timely manner.



## 4.5 Other measures undertaken by Agriculture and Food Committee

All mandi operations have unique challenges, however the RMS 2020-21 wheat procurement season came with constrains of COVID-19 protocols, curfew in the state that restricted movement, and necessity of maintaining social distancing.

In view of these constraints, and to ensure health and safely of all, novel mechanisms had to be developed and deployed.

#### Agriculture and Food Committee (Constituted on 28th March 2020)

The mandate of the committee was to focus and ensure smooth procurement of wheat in a regulated manner.



#### Members

#### Chairperson

Additional Chief Secretary (Development)

#### Members

- Principal Secretary-Food
- Secretary Agriculture
- Director Food
- SPA MDs
- Secretary Mandi Board (Member-Convenor)



#### Protocols issued

- Regulation of wheat transport by the farmers to the mandis
- Increase in the number of mandis by recommending notification of rice mills as purchase centres
- Issue of Standard Operating Procedures and COVID-19 protocols to be followed by all stakeholders
- Introduction of Procurement by Invitation through Arthiya-Kisan pass system on the basis of the RMS/KMS 2019-20 business
- The generation of passes online at the MC level and the delivery of passes to farmers by Arthiyas
- Regular social audit of all facilities at mandi to be conducted





Image source: Sify

# Box 3: PMB ensured sanitisation and safety through:-

- Foot-operated 1,124 handwash stations (500 litre capacity) installed in the mandis with adequate water and liquid soap
- 35,000 litres of sanitizer made available and used during procurement operation
- 1.5 Lakh 3 ply and 9000 N-95 masks distributed in the mandis
- 200 First-aid medical kits, medical supplies and 18,000 sanitizer bottles made available in mandis
- Fumigation of mandis undertaken at regular intervals (12.65 Lakh litres of Sodium hypochlorite used)
- Holograms for passes (Arthiya-Kisan Pass and mandi Pass) -20 Lakh arranged and used

## 4.6 Flattening of the arrival curve to prevent crowding in mandis

During the regular RMS procurement season, 120-130 LMT wheat is procured over a period of 40-50 days with peak day arrival in mandis of about 11-12LMT. This scale of arrivals has always led to mandis overflowing with unlifted and unsold wheat for weeks together during the wheat procurement season.

However in the RMS 2020-21 procurement, with the increase in number of mandis and introduction of passes i.e. 'Procurement by Invitation', the wheat arrivals in the

#### THE TIMES OF INDIA

### 'Asia's largest wheat procurement' operation over: Punjab CM Amarinder Singh

TNN I Jun 1, 2020, 04.48 AM IST



CHANDIGARH: After "successful" procurement of 128 lakh metric tonne (LMT) of wheat, Asia's largest wheat procurement operations, despite the Covid-19 challenge, Punjab chief minister Amarinder Singh on Sunday lauded farmers, arhtiyas, labourers and all government agencies.

The chief minister complimented the departments of agriculture and food and civil supplies, along with their agencies, including Markfed, Punjab State Warehousing Corporation, Punsup, as well as the FCI.

News articles depicting the success of the State

mandis stabilized during the peak days to around 6-7 LMT daily i.e. the arrival curve remained flat during the entire season without any spikes. The streamlined lifting of the procured wheat during the season ensured that there was no glut in any mandi.

# No crowding in Asia's largest mandi, arrivals staggered

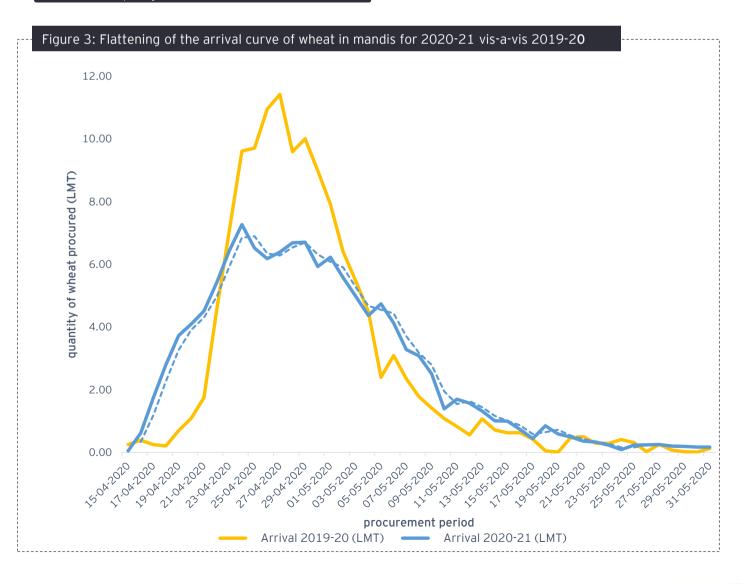
27.32 LMT grain procured so far against 12.57 LMT last year

GURMINDER SINGH GREWAL

KHANNA, APRIL 23
The purchase of wheat at Asia's largest grain market is going on smoothly. There is no rush or glut since limited coupons are being issued on a daily basis and because pur-



News articles depicting the success of the State

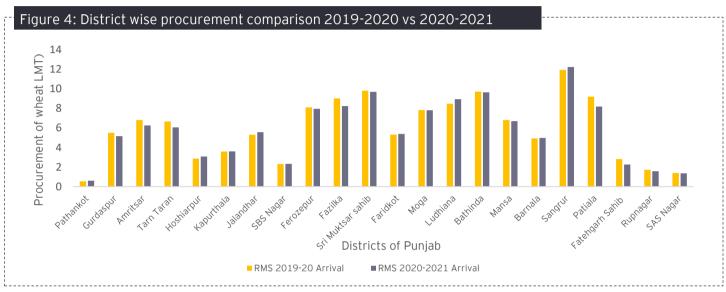


## 4.7 Procurement comparison 2019-20 vs. 2020-2021

A comparative study of the RMS 2019-20 vs 2020-21 reveals that the current year wheat arrivals in the mandi were about 2.3% less. This difference is attributed to:

- Untimely rains and hailstorms at the height of harvesting season that hit the ripe wheat crop in the entire State especially - Patiala, Rupnagar, Fatehgarh Sahib and SAS Nagar districts in April 2020 leading to shrivelling of grains, thereby affecting the total yield
- The Punjab farmers, known for their philanthropy, donated large quantities of wheat to community kitchens of various religious shrines, NGOs and other philanthropic bodies which are involved in helping the noor.

Despite the onset of COVID-19 and the climate challenges during the harvesting season, the Government was able to ensure a record procurement of 127.67 LMT.



#### hindustantimes



# Punjab farmers give 50,000 tonne grain in charity to shrines during lockdown

Golden Temple langar got 3,650 tonne wheat of a total of 6,260 tonnes SGPC-run gurdwaras received since April 15 when harvesting began in state















Of the 6,260 tonne grain the Shiromani Gurdwara Parbandhak Committee (SGPC)-run gurdwaras received during the same period, the Sri Guru Ram Das langar in the Golden Temple, Amritsar, got 3,650 tonne in charity against 1,600 tonne last year.(HT Photo)

News articles highlighting the philanthropic activities

Image source : Hindustan Times

Despite rainfall and various constraints, total procurement in the state went down by just 2% in comparison with last year.

india cities coronavirus #WFHLife opinion world cricket entertainment education trending videos tech podcasts health

# Rain adds to Punjab farmers' woes amid Covid-19 crisis

Already grappling with acute labour shortage, farmers suffer as rain damages their standing crop as well as produce kept in the grain market.

CITIES Updated: Apr 20, 2020 19:54 IST



Image source: Hindustan Times

# 5. Procurement of cotton, and sale/ purchase of vegetables & fruits in wholesale mandis

Despite the struggles of pandemic and the challenging RMS 2020-21 wheat procurement, the government during this procurement period ensured that sale/purchase in mandis of other agricultural products continued smoothly.

During the wheat procurement season PMB was able to successfully undertake the procurement of optimal quantities of cotton in the mandis, and sale/ purchase of vegetables & fruits in the wholesale mandis of the State



# Cotton procurement during wheat procurement season

- Cotton arrival and procurement was carried out in 9 mandis across 4 districts in the State
- Quantity transacted/procured: 5.70 LMT (value: INR 307.80 crore)



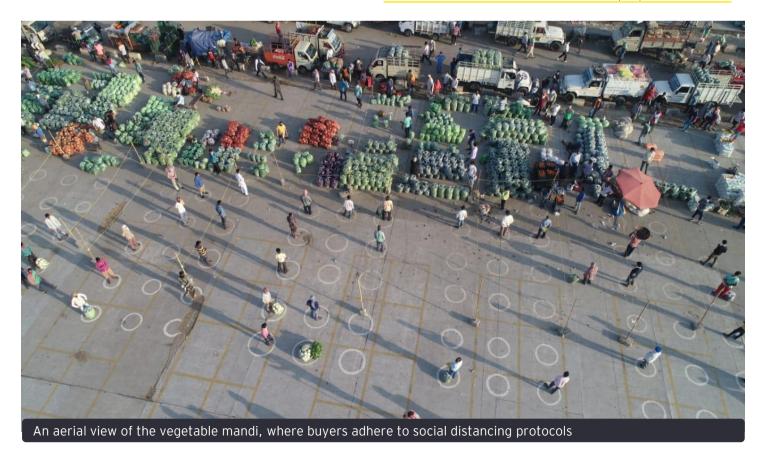
Officials supervise the procurement of cotton at a cotton mandi

# Sale/ purchase of vegetables & fruits during wheat procurement season

There are 115 Fruit & Vegetable Wholesale mandis, which are the lifeline for farmers to sell their produce as well as for urban centres, to ensure uninterrupted supply of vegetables and fruits. These mandis had been operating without a break during the lockdown and continued throughout the wheat procurement season. PMB was assisting the local administration in door to door delivery of fruits & vegetables during the lockdown period. With the same staff as available for procurement, it was able to transact the following business through these mandis:

Of the total 34,34,815 quintal procurement of fruits and vegetables across the state between 22<sup>nd</sup> March - 31<sup>st</sup> May'20, over 50% was accounted from the districts - Jalandhar, Ludhiana, Sangrur, Hoshiarpur and Amritsar.

District	Procurement (Qtl.)
Jalandhar	5,51,131
Ludhiana	3,79,194
Sangrur	3,55,037
Hoshiarpur	2,51,671
Amritsar	2,47,951



# 6. Safety and sanitization protocols

# Snapshot of protocols implemented











# Snapshot of protocols implemented





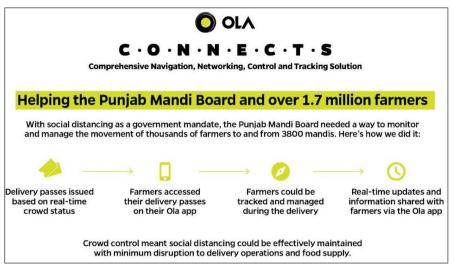


PMB issued protocols for minimizing transmission of COVID-19 vide orders dated 6.4.2020 and 11.4.2020, wherein following guidelines, in addition to the ones depicted in the previous slide were laid:

- Restricted access to mandis/ premises/ shops to only those involved in the mandi operation
- Employees/ contractors/ workers exhibiting dry cough/ respiratory symptoms/ fever were not permitted entry into the mandi
- High risk employees (aged/pregnant/medically conditioned) were not exposed to front-line work that required public interaction
- Unnecessary touch points (table clothes/covers/ decorations) were removed

These safety protocols were designed towards minimizing health risk to all stakeholders involved, and minimize the risk of mandi yards and related premises (Arthiya shops, storage points, sleeping areas, banks, eating places in mandis) from becoming nodes of transmission for COVID-19.

# 7. Other digital interventions





# Trolley tracking and monitoring

PMB successfully tested a Trolley Tracking & Monitoring Software on a pilot basis - to track the movement of farmer's tractor trolley to the mandis. During the pilot, it was seen that the dashboard helped regulate trolleys and vehicular movement in the mandis. The app, installed on farmers' mobiles, sent alerts to the farmers on rush spots at mandi gates.



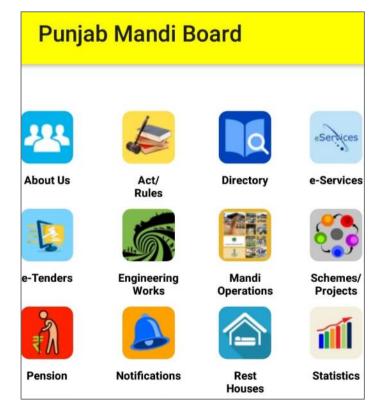
# COVA App

The COVA app was developed for effective tracking of harvesters to ensure efficient screening and monitoring of operators entering the borders. Officers posted at the Punjab border were responsible for monitoring the entry of harvesters and ensuring effective usage of the app by farmers to regulate the tracking.

#### E-PMB App

In a bid to make Rabi Management System 2020-21 paperless, the PMB launched e-PMB, a mobile application and Integrated Management System (IMS) to provide real time information on procurement to the farmers.

It empowers Arthiyas and the public with online licensing and providing availability of actual rates of fruits and vegetables in 'Apni Mandis' from various locations within Punjab. It also enables farmers to sell their produce at real time rates.



# 8. Champions of Punjab: additional factors





#### Police and volunteers

The Department of Agriculture and PMB adopted GoP's two-pronged approach for ensuring the safety of all people at the mandi. As per strategy, the officials, police and volunteers, as the first unit, regulated the coordination between all departments in the mandis. The second unit consisting of on-ground officials, police and volunteers, were at the front line. They assisted farmers, labourers and others to abide by the norms. The volunteers included many citizens from local villages and cities across the state.







#### Guardians of Governance (GoGs)

The PMB solicited the services of 3195 ex-servicemen in order to support the State in monitoring the operational activities of the mandis. The GoGs were also assigned the responsibility of monitoring and enforcing safety and sanitization protocols, with special focus on social distancing and maintaining a hygienic environment in all the mandis. The GoGs provided dedicated and consistent service to the State in the implementation and regulation of the lockdown protocols.



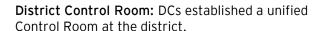




# Government machinery - the District Administration

Procurement has always been coordinated by the district level administration under the control of Deputy Commissioners who are assisted by the Sub-Divisional Magistrates, Tehsildars, Block Development Officers.

District level Procurement Committee (*DLPC*): In the RMS 2020-21, the *DLPC* with Deputy Commissioner (DC) as Chairman and District Food and Supplies Controller, District Managers of Procurement Agencies and District Mandi Officer as members was set up. The DLPC supervised day to day procurement operations, staggering of arrivals, intra-district bales movement and enforcing COVID-19 precautionary measures.





# 9. Reflections and learnings



#### Stakeholder meetings

It was extremely critical to involve all stakeholders in planning the new initiatives for the procurement of wheat. Several remote press conferences, detailed discussions and briefings to the representatives of the Arthiyas and farmers took place, which were intimated through advertisements and via social media. With limited time at hand, Departments of Agriculture and Food and the Procurement agencies discussed the initiatives with departmental staff and all relevant stakeholders, with primary focus on the Arthiyas and farmers.



#### Digitization of data and HR issues

The PMB manuscript procurement records of RMS and KMS 2019-20 across 154 MCs needed to be digitized as they formed the basis on which the Arthiya Capacity was to be calculated for the generation of passes. Given the limited IT proficiency of the staff and short time, substantial effort was put to ensure credibility of the digitized data by undertaking checking and re-checking of data at various levels. The importance of data digitisation was realised as data of previous year's procurement numbers had to be manually uploaded overnight into the software. After this year's procurement drive, importance of accessible and consistent data on digital platforms for analysis and research has been a key learning.



#### Software development and using IT Infrastructure for handholding

As time was of essence, calls and video conferences between the software teams of PMB and DGR resulted in a software that was simple to understand and implement. It was a model based on a fair and just logic that delivered a transparent system that very few people complained about. The first passes were generated on 12th April for use on 15th April (72 hours in advance). COVID protocols and curfew restrictions integrated the usage of existing IT infrastructure to conduct meetings, trainings and handholding activities through video conferencing. Ability to work remotely was a key learning.



#### Integrating software changes basis on-ground analysis

The number of passes to be issued was restricted by mandi capacity, due to which all Arthiyas in a mandi could not get passes every day. During the first few days of procurement, passes were generated based on Arthiya capacity, and were directly proportional to business undertaken in RMS/KMS 2019-20. As apprehension of the new system was in the air, some Arthiyas who undertook very little business in yesteryears became restless as they did not get passes. Therefore, system adjustments were made to ensure passes to Arthiyas irrespective of Arthiya capacity. However, equal passes to all was not fair and sustainable, and eventually a hybrid logic was implemented - 5 days a week passes were issued on the basis of Arthiya capacity and 2 days passes were issued to the smaller Arthiyas, i.e. those who hadn't received passes during the first 5 days of the week. This ensured work for all based on their capacities - which was half the battle won! The learning from this experience was to adapt to changes basis real-time situations and integrate required changes in technology being used.



#### Ensuring hassle free procurement of wheat through new interventions

New interventions were key as the online Arthiya-Kissan pass distribution helped in regulating arrivals in mandis, and ensuring social distancing. This intervention resulted in hassle free procurement of wheat.

# **Additional Challenges**

## Box 3: Insufficient storage space

When procurement began in Punjab, there was shortage of storage space in godowns. The Department of Food and Civil Supplies was able to create storage space by facilitating a record movement of goods, despite labour crunch.



By Rail: 1771 rakes were moved out of Punjab (536 wheat rakes - quantity 15LMT and 1235 rice rakes -quantity 33LMT moved to Consumer States facing shortages)



By road: more than 1.9LMT of wheat and rice was sent to Jammu and Kashmir and more than 1.3LMT of wheat and rice was sent to Himachal Pradesh



Requisite labour was also arranged to facilitate this movement. Arranging the labour was a mammoth task considering that labourers required for one rail-rake is 50-200

# Box 4: Gunny Bales (bags) and stock articles

- While orders for gunny bales and stock articles were placed well in advance, the COVID-19 lockdown and curfew in the country disrupted supply chains.
- The jute mills in the east were closed and were not able to supply bales after 24<sup>th</sup> March 2020. By early April 2020, the availability of bales was sufficient only for procurement and storage of ~ 65 LMT (against State Procurement Agencies' share of ~ 114.76 LMT), while FCI, for its share of 20.24 LMT, had made its arrangements of bales.
- 20,000 bales manufactured were lying in the jute mills of West Bengal, awaiting transportation to Punjab by rail. In order to resolve the issue, Hon'ble CM of Punjab spoke with his counterpart in West Bengal to facilitate their movement.
- For the remaining bales, the Dept. of Food and Civil Supplies successfully sought permission from Gol for the use of PP\* and B-Class jute bags\*\*.
- Despite the challenges, required bags were transported and made available for procurement in a timely manner

State Procurement Agencies Wheat		Expected Bales	Bales used		
Procurement Share (in LMT)		Required	Jute PP x B-Clas		B-Classxx
Central Pool (50kg)	106.06	4,24,240	3,23,839	70,717	19,572
DCP - 30 Kg	8.7	58,000		56,429	

<sup>\*</sup>High Density Polypropylene bags II \*\*Once used Jute bag

Stock articles too, were difficult to source and procure during this time. The items purchased and transported, by Dept of Food and Civil Supplies for use are as follows:

Wooden Crates	Polythene Covers	Mesh-Nets
11,68,784	47,600	24,000





Over 18,000 combine harvesters are owned by the people of Punjab—a testament to the state's advanced agricultural machinery. It is one of the few states that harvests over 90% of its produce mechanically. Through these combines, Punjab helps harvest fields in states across India, including in Madhya Pradesh, Maharashtra, Rajasthan, Bihar, where the wheat harvesting season begins in March.

This is the story of Nikka Singh of Burj Sema village, near Talwandi Sabo.

When the nationwide lockdown was announced in March 2020, Singh, along with over 8000 other harvester operators, was harvesting fields across north and central India. In the given circumstances, returning to Punjab seemed difficult.

As these combines are essential for harvest, the Government of India allowed for the movement of harvesters on 27<sup>th</sup> March 2020. The state government of Punjab reached out to Singh and other harvesters, giving them the much-needed assurance that their accommodation, safety and sanitisation would be taken care of, encouraging them to return home.

At the border, Singh's combine was received by Government officials, where it was registered, sanitised and tested. Along with his team, he received detailed training on sanitisation techniques and social distancing. They were taught to sanitise the machine at every village entry, and at the end of every day's work. The preparedness of the state gave confidence to Singh and others to move swiftly through the state in time for the procurement season, all while following safety and sanitisation protocols.

The Agriculture Department ensured that the combine harvesters, especially those coming from outside Punjab, were properly sanitised and the operators also took due precautions to check the spread of coronavirus.

- Shri K S Pannu, Secretary, Agriculture & Soil Conservation



# SOP-1: Guidelines for wheat harvesting in Punjab<sup>12</sup>



In case of manual field operations of harvesting/ picking, the farmer should complete the operation in 4-5 feet spaced strips assigning one strip to one person so as to ensure an adequate spacing between the engaged labours.



Farmers must stagger field operations wherever possible and avoid engaging more number of persons on the same day.



In case someone is diagnosed as a close contact of a COVID-19 patient, one should report the incidence to the helpline No. 104/ State Control Room No. 01722920074/08872090029, detailing the exact nature of exposure.



The collection of the produce at the farms should be done in small heaps spaced at 3-4 feet and field level cleaning/processing should be assigned to 1-2 persons per heap to avoid crowding.



Indoor areas including the inside of the combine harvester, seats, gears should be cleaned every evening and early in the morning before the combine is occupied.



The Combine Harvesters entering the State from other States shall be compulsorily cleaned/ sanitized at the entry barriers as per the procedure prescribed.



# SOP-2: Seamless procurement of wheat in Punjab<sup>12</sup>



Market Committees and Procurement Agencies (as the case maybe) should ensure all mandis /storage facilities have toilets, handwashing stations, adequate clean drinking water, masks and sanitizers for all officials. There were announcements at regular intervals/ display of banners imploring all to follow social distancing norm.



Market Committees and Procurement Agencies (as the case may be) have to ensure all mandis / storage facilities have medical teams for testing of Covid-19 in case any person shows symptoms of the disease



Social distancing of at least 1 mt. is to be maintained during mandi/storage operations and mandi operations for one heap of wheat be conducted in the block of 30 ft x 30 ft



Removal of unnecessary touch points like tables/clothes/covers from the common areas etc. and to ensure no contact with shared items



In case someone develops coughing/sneezing/fever/ difficulty in breathing, or is diagnosed as a high risk contact of a COVID-19 patient, one should report it to Helpline No. 104/ State Control Room No. 01722920074 / 08872090029, detailing the exact nature of exposure



Arthiya must ensure adequate drinking water, clean toilets, masks, sanitizers are available at their premises for the use of their labour and farmers



Arthiya is to ensure that the sleeping area for his labour is well ventilated and has adequate space so that the requirement of social distancing of at least 1 metre is met. The Arthiya should make sure that such place is regularly cleaned and disinfected



# SOP-2: Continued



Each transport contractor should deploy dedicated vehicles only for transportation of wheat from one mandi to a storage point. He should also ensure sanitization of drivers and vehicles from time to time. Procurement agencies to ensure that the authorized trucks ferry on a particular route to the designated mandi by checking their passes; intermingling of vehicles / drivers plying across different mandis was not allowed



The Arthiyas shall ensure labour arrangements/rosters provided for the labour to work in one mandi or at the most work in close by mandis



The Arthiya Kisan Passes (issued by Market Committees) are to be issued and distributed, as far as reasonably possible, for a particular date to farmers from a single village i.e. specific date coupons must preferably go to farmers of the same village.



District Control Room: The Mandi Board Headquarters established a specific control room (allocation one person for each district)



Village level check-points set up to ensure/allow only one farmer/his representative on the tractor trolley with valid coupon to bring produce on the specified day and to the specified Mandi. The check point shall also ensure that if such person is showing visible signs of dry cough/respiratory symptoms/fever then he shall not be allowed to travel further and must approach the nearest health authorities



In case of COVID-19 related lockdown of a mandi, security of the mandi and the produce stored therein was the responsibility of the local police authorities and DLPC. DLPC was to make alternative arrangements to accommodate wheat arrivals.

Providing relief measures





# **Chapter Flow**

Introduction

Food and ration distribution to those in need

Financial disbursements





**15 lakh dry ration packets** distributed by the State government across Punjab



**94,000 dry ration packets** distributed by the state government to the needy in Ludhiana, Jalandhar and Amritsar



**10.21 Lakh** food packets distributed under Atmanirbhar scheme



INR 100.52 crore were issued by the SEC to districts to carry out relief activities



INR 215.3 crore disbursed by the SEC to various departments of the state government for COVID-19 activities

# Providing relief measures



#### 1. Introduction

The COVID-19 pandemic has upended our way of living entirely, and led to a socio-economic crisis of epic proportions. As per the UN's Framework for the Immediate Socio-Economic Response to the COVID 19 Crisis, "the COVID-19 pandemic is far more than a health crisis: it is affecting societies and economies at their core. While the impact of the pandemic will vary from country to country, it will most likely increase poverty and inequalities at a global scale." Further, in many parts of the world, including India, informal workers, migrant labourers and the most vulnerable have been hit the hardest.

In such a situation, governments have a particularly deep responsibility to their citizens, to provide them with basic necessities such as food and shelter. In Punjab, the distribution of this relief to vulnerable groups was achieved with through the support of Central government schemes such as the PMGKAY and Atmanirbhar Bharat, the resourceful efforts of the state government, particularly the Department of Food and Civil Supplies and Consumer Affairs, the District Administration, and countless community volunteers who helped to prepare and distribute food.

Moreover, the State Disaster Relief Fund has provided financial support for various COVID-19 related expenses. Funds from SDRF were utilized in the following activities all across the State:

- Setting up additional testing laboratories
- Setting up of relief camps
- Procurement of thermal scanners, ventilators, air purifiers etc.
- Management of expenses incurred by various departments
- Financial assistance provided to the stranded and migrant workforce
- Arrangement of transport facilities, food, medicines and other essentials

This chapter highlights some of the major relief measures organized by the central and state government to mitigate the hardships caused by the COVID-19 pandemic, such as distributing food under the PMGKAY and Atmanirbhar schemes. It also provides a brief summary of funds dispersed by the SDRF.

#### 2. Food and ration distribution to those in need

The Government of India launched Pradhan Mantri Garib Kalyan Anna Yojana (PMGKAY) allowing NFSA beneficiaries to be eligible for extra free allocation for a period of three months (April - June, 2020), distributing 5 Kg of wheat per person per month as well as 1 Kg of Dal (urad whole) per family per month.

In addition, the Atmanirbhar Bharat scheme was launched to cover migrant workers / Non NFSA beneficiaries for two months (May and June 2020), in which 5 Kg wheat per beneficiary and 1 Kg pulses per family were to be distributed. GOI allocated 14144 MT wheat and 1015 MT of pulses (black chana).

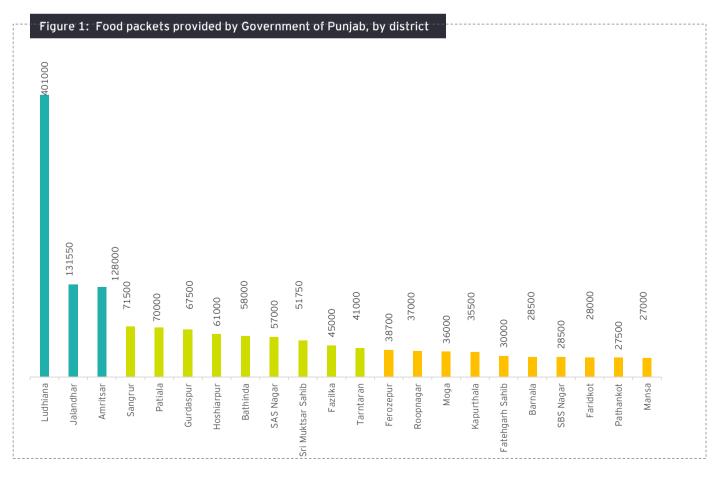
Government of Punjab took the initiative to distribute atta after getting the allocated wheat grinded and adding sugar in these packets so as to provide succour to those in need. The distribution of food packets under Atmablrbhar Bharat Sceme is being made through the District Administration and proper record is being maintained. The last date of the distribution of food packets under AtmanIrbhar Bharat Scheme is 31st August, 2020. However, in light of ongoing need, GOI has been requested to extend the date of distribution up to 30th September, 2020.

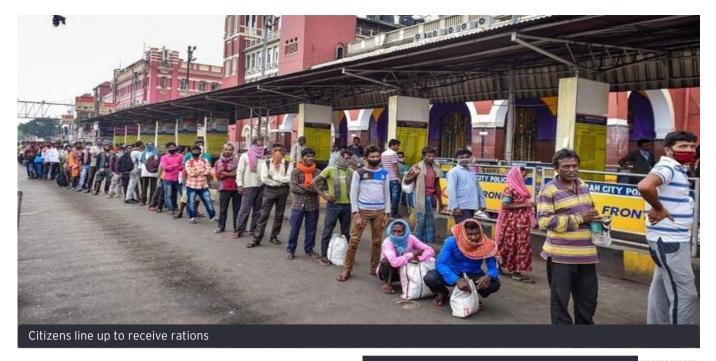
Even before these schemes were launched, the state government being proactively considerate towards these vulnerable sections of the society, decided to



SBS Nagar District Administration distributes free ration under Atmanirbhar scheme in Banga

ameliorate their hardship and issued directions to distribute 15 lac dry ration packets comprising 10 Kg Atta, 2 Kg pulses and 2 Kg sugar through the Department of Food Civil Supplies and Consumer Affairs. The approximate cost incurred on each food packet was INR 460. The District wise allocation/distributed detail of the food packets has been illustrated in Figure 1.





After these were effectively distributed, focusing on the sufferings of the urban population, additional 2,00,000 dry ration packets were approved for the migrant and needy population of Ludhiana, Jalandhar and Amritsar. 94000 dry ration packets have already been distributed under this provision.

The distribution under the PMGKAY has been completed well within the prescribed scheduled time. The statistics of distribution under this scheme through online mode is as indicated in Table 1.

## Table 1: Distribution under PMGKAY, as of $30^{th}$ June 2020

Total Allocation of wheat	212164 MT
Total wheat distributed	197439.07 MT
Total Allocation of Urad whole	10800 MT
Total Urad whole dal distributed	10211.93 MT

#### Box 1: Old Age pension at door step



The elderly are particularly vulnerable to COVID-19, and it is especially important that they receive their pensions in a timely manner during the lockdown, without risking exposure to the virus.

Sarpanch Ajay Kumar Saini shared that the amount of old age pension INR 750/- per month is a big support for a poor person specially in this crisis situation, when there are no earnings for the family.

He took this task on priority and himself distributing the amount directly to the beneficiary. Further, he ensured that no one in the village slept without food, for this, a community kitchen has been setup to prepare & distribute free food to the poor and daily wagers. He added that, the whole village had been sanitized by spraying the disinfectant with support of youth of the village. Gram Panchayat is following all the instructions of Govt. and taking all precautions proactively to combat against COVID-19.

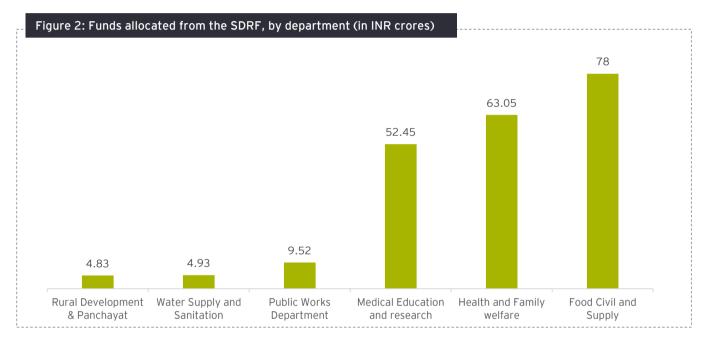
#### 3. Financial disbursements

### Box 2: Role of SDRF

The State Disaster Relief Fund (SDRF) was formulated by the 13<sup>th</sup> Finance Commission. It is the primary fund available with States to be utilised while encountering any disaster.<sup>2</sup> Funds for SDRF were issued by Revenue Rehabilitation and disaster management department after approval from the SEC. SDRF seeks to provide a comprehensive approach to disaster risk management in the State through:

 The creation of a policy, legal and institutional framework, backed by effective statutory and

- financial support
- The mainstreaming of multi-sectoral disaster management concerns into the developmental
- · process and mitigation measures through projects
- A continuous and integrated process of planning, organising, coordinating and implementing policies and plans in a holistic, community based participatory, inclusive and sustainable development



The financial assistance of INR. 52.45 Cr. provided to the Department of Medical Education and Research has been utilised in:

- Setting up of COVID-19 testing labs
- Procurement of RNA extraction & RTPCR machines
- · Major & minor works in isolation wards
- Procurement of medicines for COVID-19 patients
- Procurement and management of manpower in isolation wards, quarantine facilities

A significant portion of this amount was used in the creation of IEC collaterals to impart correct information in safeguarding the citizens from COVID-19. Other departments used the financial assistance for:

- Disinfection and sanitization of districts and villages
- Procurement of machines
- Construction work related to public health works
- Setting up of labour and shelter camps
- Providing food supplies to the migrants

Promoting social distancing and use of digital/online means for meeting the day-to-day essential needs

In addition to the assistance provided to various Government Departments, the District Administration was also authorized to use additional funds for relief measures. The District Administration in close coordination with Departments was involved in migrant movement, rapid testing, construction of quarantine facilities etc. A total of INR 100.52 Crore was transferred to the districts with the aim to let no work be interrupted due to lack of financial supply. Additional provisions were mandated in case of emergent extra need of monetary relief as well. Below is a list of large districts and the amount received:

- Ludhiana INR 30 Crore
- Jalandhar INR 9.16 Crore
- Amritsar- INR. 7.98 Crore
- Mukhtasar- INR 7 Crore
- Hoshiarpur INR 5.28 Crore
- Patiala INR 4.55 Crore

Looking back, moving forward





# Chapter flow and contents

1

### Introduction

The Government of Punjab has set up a Group of Experts to develop a post COVID-19 economic strategy for the revival of State. The report suggests the key actions that are needed to help the State get to its new normal growth rate and restore a preeminent position in the country and globally.

2

## Action on health

- Strategy for containment and mitigation
- Classification of areas at subdistrict
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- Increasing budget provision
- Protecting healthcare workforce
- Filling unfilled positions

3

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- Rationalize fertilizer & Food subsidies

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# Looking back, moving forward



#### 1. Introduction

Thus far, this report has provided a glimpse into Punjab's initial response to the pandemic. During this time, Punjab's strategy, deployed by the state government, private sector and community members can, overall, be characterized as successful. As of July 30<sup>th</sup>, Punjab's recovery rate is higher than that of many other states. The number of tests conducted per day has gone from zero to 9,000+, with more VRDL labs being established. The success of frontline workers such as Harjeet Singh stand as a testament to the people's commitment in ensuring the greater safety of the state. The COVA app has brought a degree of efficiency to governance that has been previously unseen.

But despite early successes, there isn't room for complacency. Lockdowns aren't a globally coordinated exercise, and until a vaccine is developed and then distributed to a significant amount of the population, the threat of the pandemic still looms large. In addition, the pandemic calls for urgent policy responses to keep the economy afloat and help people retain their jobs and incomes.

In the same vein, this chapter provides an overview of what the broader response to the pandemic might look like in Punjab --in the medium as well as long term. In April, anticipating that the disruption-both economic and social-caused by the onset of COVID-19 might be long-lasting, the Hon'ble CM constituted an expert committee tasked with suggesting long term strategies to revive the state's economy. Headed by noted economist and former deputy chairman of the planning commission Sh. Montek Singh Ahluwalia, the committee is comprised of various policy experts, spanning diverse sectors.

The following chapter highlights some of the major recommendations put forth by the committee in their report presented on 31<sup>st</sup> July 2020 (the first in a series of three, with subsequent reports scheduled to be released in September and December respectively). Embedded in the final chapter of this report, the recommendations of the committee serve as a reminder that despite all the good work put in so far, there is still much more to be done. The COVID-19 pandemic will eventually fade, but the hope is that the lessons learnt and resilience built-of the community as a whole -will be remembered, celebrated, and cultivated long afterwards.

#### 2. Action on Health



#### Strategy for containment and mitigation

- A digital system can be developed to monitor the real time data reporting and analysis at the district level to identify new cases and clusters combined with a system for quarantining and isolation as well.
- A system of volunteers should be put in place to act as the first level of responders, each covering 50 to 70 households. Where this surveillance yields a positive case, the health worker/ community volunteers shall undertake the task of contact tracing.
- In cases of home isolation, the health system and other administrative support must be made available as needed.

## Classification of areas at sub-district level

Classification of areas should be done at the subdistrict level to minimize the extent of disruption. The unit in rural areas should be the revenue village and in urban areas it could be streets/colonies/ wards. The criteria for classification as red or green could be RO and doubling time calculated weekly based on a sevenday average.

Any area with R0 below 1 and a doubling rate greater than 28 days should be classified as a Green zone.

#### Increasing budget provision

The health sector allocation in the current year budget is only INR 4532 Crores. About one fourth of this allocation is contributed by centrally sponsored schemes. The allocation should be increased to at least Rs 5438 crore and the necessary budgetary procedures for authorizing this increase should be completed urgently. The additional expenditure will be necessary for expanded testing, implementing a behavior change communication strategy, procuring PPE, masks, disinfectants etc. and also expanding bed. The potential of telemedicine can also be effectively used state wide.

The private medical facilities are an important part of the health system, but handling pandemics calls for a strong and well-functioning public sector health system in place. A substantial expansion in the public sector health system, starting with an effective system of primary care, and steps to develop a larger supply of health professionals, must be top priority in the longer-term health agenda.

Government expenditure on health in Punjab should be increased to at least 2 % of GSDP from 0.7. It is also recommended that the State Government should plan for an increase in the current level of Government expenditure by about 20 percent every year over the next several years.

#### Protecting healthcare workforce

Protection of the health care workforce, not just doctors and nurses but also others who are not directly involved in patient care is extremely important. Hospital infection control committees must stringently monitor use of PPE where necessary, as well as use of exhaust fans and other elements of SOP.

#### Planning for extra bed capacity

It is necessary to have contingency plans ready for extra hospital beds for a possible second spike. The District Administration in each district, especially where there are hotspots, should be encouraged to prepare contingency plans for expanding total bed capacity for L2 and L3 COVID-19 care, in public hospitals together with partnership with the private sector.

#### Filling unfilled positions

As in most states, there are a large number of unfilled posts in the public health system. Some of this reflects an overall shortage of health personnel which can only be met over a longer period, but there are also posts that have not been sanctioned for want of resources. An accelerated plan for filling vacancies to the extent possible should be implemented to strengthen the system's capacity to deal with the pandemic.

## 3. Transforming Agriculture

#### Creating functional land markets

Opening up the leasing market for land is critical for attracting large scale private investments in high value activities, both on and off farm, which would eventually allow the State to diversify to high value products. The following steps need to be considered:

- Change State laws that will open up a leasing market for agricultural land freely for long periods in an environment where the rights of land owners are fully protected. A graduated policy could be introduced which shall determine the tenure of lease on type of land, type and quantity of produce etc
- Geo-tagging all farms and matching them with land records and Aadhar cards to ensure hassle free land lease market will ensure that land transfers are promptly recorded in the revenue records.
- Liberalize laws relating to conversion of agricultural lands for non-agricultural uses: In order to unlock the capital value of land, large areas can be earmarked where anyone is permitted to convert agriculture lands for non-agriculture use on a pre-announced conversion fee basis.



- Reduce the area under common paddy by about 1
  million hectares. This would pose a burden on the
  budget, but to the extent it succeeds, it would
  reduce the use of electricity thus saving on the
  power subsidy and would avoid the environmental
  damage from excess use of water.
- Separation of agriculture feeder lines offers possibilities for smart rationing and synchronization of power supply with the needs of agriculture
- Pani bachao, Paisa kamao: The pilot scheme is being implemented with World Bank and JPAL, along with demonstration farms on some feeders, it may offer a way to reduce the use of electricity.
- Solar powered irrigation pumps: A basic problem is that the farmers have no incentive to undertake the capital investment required as long as they are getting electricity free. This can be handled by extending a capital subsidy which will be a burden on the budget but would be offset by saving in the power subsidy over the next three to four years.

#### Marketing reforms

- Opening up agricultural marketing beyond the APMCs to increase the scope of selling farmer produce
- Doubling of area under high value fruit orchards (like plums, peaches, litchi, guava, etc.) and vegetables (potatoes, peas, chilli etc.)



#### Seeds, Agri R&D

- Promotion of production of seeds: Inviting big seed companies by allowing them to have contract farming with farmers and farmer producer organizations (FPOs), and also allowing them to have long lease of land. The concept of seed villages can be developed to ensure virus free seed development. Geo-tagging of farms to enable traceability and use of advanced technology like block chain, which is already being used in potato seed sector, needs to adopted.
- Agri-R&D and Innovations in extension system: A
   part of this could come from the private sector
   through innovative forms of PPP linking
   government research bodies with business. This
   requires a well designed R&D strategy that serves
   the farmers well with a new vision of diversification
   to high value agriculture. This would imply a
   substantial increase in expenditure in the
   government budget, but the increase if well
   managed, could yield returns from more diversified
   agriculture which would be multiple times the initial
   investment.

### Optimum use of farm machinery

- Uberization of farm machinery: Bringing in major farm machinery players and making machinery available those on rent will ensure optimal utilization of farm machinery, cut down costs, and make Punjab agriculture more cost competitive.
- Export of farm machinery: Farm machinery players
  including start-ups should be invited for production
  of machinery in the state with special incentive
  package, aiming to export to African countries as
  well as Central Asian countries. Punjab's experience
  of skills in tractors, harvest combines, paddy transplanters, etc. can come very handy in exporting
  machinery with services needed.

#### Livestock & Food processing

- Milk Production: The State Government should evolve a plan to ensure that at least 50 percent of milk produced in the State is processed in the next 3-5 years period. A special incentive package for processors is needed to build more collection centres with chillers in major milk producing districts. In this context, State Government should take full advantage of the Central Government scheme for dairy development that has provisions for these initiatives. Tax exemptions for a predetermined time period and a moratorium on interest payable on loans depending upon the turnover would go a long way to develop milk-based processing industry.
- GST on ghee to be reduced to 5%
- Promote consumption of milk and eggs in Mid-day meal scheme to create demand for healthy food.
- Digitalize the entire livestock sector value chain, from ear-tagging of animals to their feed and milk/meat output.
- Promote sex sorting semen technology for cows through agencies like BAIF, and also explore through R&D if this can be done for buffalos too.
- The State needs to have a clear policy of encouraging processors/exporters/organized retailers to directly buy from farmers without any extra cess or rigid conditionalities (e.g. the condition of buying wheat at MSP plus 2 percent).
- Given large surpluses of wheat and milk (ghee), the State can emerge as the bakery hub of the country provided State Government encourages direct linking of farmers/FPOs with processors without any market fee or other stringent conditions. The State can also create its own brand of butter, ghee, cheese, basmati rice and bakery products.
- Promote MSME food processing enterprises: The Central Government's latest scheme on formalization of micro food enterprises under 'Vocal for Local' could be used to help these enterprises become more competitive under a cluster based approach. An anchor investor could be identified for each cluster that could bring in other MSME investments.
- Promote a class of Agri- Entrepreneurs: Punjab can build on this by creating a special cell for agricultural start ups where industry partners can come forward to mentor and guide new innovations. Funds could be created to support these innovations and make them market ready.





#### Rationalize Fertilizer and Food subsidies

- Replace the existing system of fertilizer subsidy by cash transfers. Punjab has highest fertilizer consumption, but N, P, and K balance is totally out of line. The State should seek a go-ahead to move towards cash transfers of fertilizer subsidy on per hectare per crop basis, and free up fertilizer prices. It will help double efficiency in fertilizer use through fertigation.
- Move towards cash transfers instead of distribution of subsidized food grain will help create demand for more diversified and nutritious food. If all out cash transfers is not possible, then the PDS beneficiaries can choose between cash transfers and grains. The State should take a lead in seeking permission from the Centre to implement this system for better nutrition and more diversified diets that will contribute in improving the health of the citizens.

## 4. Revitalising Industry



#### Cost of Power for industries

- Modifying the two-part tariff: COVID-19 lockdown has prevented industries from operating at full capacity. The average tariff under the two-part tariff system turns out to be much higher, close to INR 10 per KVAH at 20% contract demand usage and INR 13 per KVAH at 10%. Thus a case for granting relief by allowing industry with the option of choosing between single-part tariff and twopart tariff for an year should be allowed. The additional amount could be treated as "regulatory capital" and recovered through higher tariffs in future.
- **Greater use of open access:** Bigger power users could also be allowed to access cheap power from the market on payment of wheeling charges.
- Penalty for unauthorized use of electricity: UUE should be amended to differentiate between gross and intentional violation and unintended procedural lapses. In the latter case only the difference in tariff applicable should be charged.
- Allow increase in contract load from 4 Mw to 5 MW for 11 KV feeders
- Privatizing distribution in selected cities: Industry will benefit from lower tariff in the longer term if there is greater competition and efficiency in the distribution of power.
- Shutting down of power plants that produce power at much higher cost

#### Aatmanirbhar package

- The State Government must put in place prepare a team of experts from industry bodies, MFIN, SIDBI, district authorities to oversee the process of credit disbursement and other aspects
- A mechanism to be set that can be used to inform potential borrowers of the conditions under which additional credit will be made available and to monitor the benefits from the increased general liquidity.
- It is also necessary to ensure that the increased liquidity made available to banks will be lent out.

#### Relaxation to MSMEs

- MSME borrowers can repay loans over a longer timeframe.
- Introduction of a moratorium on NPAs negatively affecting credit scores for a temporary period.
- Allowing exemption from Bank Guarantees in case of lack of supply of stamp paper, or alternatively adoption of digital e-stamp to enable banks to lend.
- Devise instruments that would provide liquidity to NBFCs to maintain and expand credit lines to small businesses.
- Ensuring timely payments to MSMEs.
- Provision of additional credit is the main instrument that can be deployed to help MSMEs in the short and Medium term.

#### Improving ease of doing business

- Decriminalizing non-compliance: For noncompliances during the COVID-19 period, a blanket extension for compliance should be considered, combined with de-criminalization or reduction of penalty.
- Real estate development: Proposed amendments in the Punjab Rent Act like removal of distinction between industrial estates of 10 acres and 25 acres, approval of building plans for factories to be obtained from the factories department etc., can lead to creation of more business prospects.
- Dealing with shortage of land: In view of the shortage of land, industry has represented that vertical extension can be allowed with higher floor being used for light machines, assembly, packing, and stores.
- Land situated in urban areas but classified as agricultural land should be redefined as Urban Vacant land to ease of business registration processes
- Environmental standards for waste water discharge: Steps should also be taken to encourage the use of treated effluent water generated by processing industry for irrigation and plantation purpose. Zero Liquid Discharge policy should be reviewed in the light of high use of energy involved.
- Inflexibility of Labour Laws: Though, it is not recommended to amend the Labour Laws, certain relaxations which allows employers to close down unviable units and shed excess labour after paying due compensation can be considered.
- Avoiding repetitive litigation
- Review of State Government's industrial policy regarding its thrust areas

## 5. Role of Digitisation

#### Data for better governance

The Government of Punjab is collecting vast amounts of digital data from the operation of its various programs. The thorough analysis of the data acquired can provide valuable insights into the nature and extent of interventions required to solve the problems faced by citizens, improve monitoring of programs, increase accountability of public expenses. Regularized evaluation of the interventions shall help in assessment of impactful solutions. The Government may consider creating the position of a "Chief Impact Officer" by attracting, on a fixed 3 year tenure, a visionary and implementer from the private sector who can bridge the vision and ideas of the government departments, expertise of the private sector, and the creativity of researchers from top universities.

#### Digitalize Agriculture Value Chains

- Digitalized real time information: This can help cut down costs, expand markets, and augment farmers' incomes. In addition to geo-tagging of farms mentioned above, it could extend to sending advisories to farmers about the best farm practices that ensure efficiency and sustainability, and online buying of key inputs.
- All market arrivals can be digitized, linked to farms from where they are coming to ensure traceability, and all payments can also be made directly to farmers' accounts.

#### Financial services for MSMEs

- Embrace digital lending opportunities and utilize marketplace financing to allow lenders to interact with borrowers through a digital platform
- Use supply chain financing to provide data that can be used for underwriting which would provide better access to credit, especially for the kirana shops
- Leverage NBFCs and fin-techs to provide customizable solutions for specific groups and Modify regulations surrounding Securitization of these loans to allow NBFCs to turn loans around guicker
- Utilize factoring to provide credit to those who would otherwise be deemed "high-risk"
- Combine financial relief and education to support this important sector through the crisis
- Use training and education programs on financing options



#### Expanding digital infrastructure

A precondition for wider application of digitization is the creation of "digital infrastructure". This includes infrastructure used or owned by Internet Service Providers (ISPs), as well as infrastructure used or owned by mobile phone providers. The State must pave the way for a digital transformation across all the departments and provisions made available so that they can be used by investors to identify Punjab as a more congenial State for investments.

- Obtaining right-of-way for build-out of the digital network which will require the identification and removal (or reduction) of obstacles. State Government could help overcome these problems by revising its guidelines in this regard to bring them at par with Indian Telegraph Act Right of Way Rules, 2016.
- Driving demand for bandwidth through support of programs and industries
- Focusing on efficient build-out of the digital network connecting existing wireless network towers with new fiber optic cable
- Taking advantage of economies of density and scale in building out the digital network through the development of new industrial clusters
- Integrating local Governments and the National Scheme BharatNet into a comprehensive digital infrastructure for the state's existing e-governance strategy.

"Therefore, the use of the technology should not be hampered but it must be accompanied by conscious Government policy to widen access and promote inclusivity to a broader extent."

## 6. Skill Development

Any strategy for faster growth must address the issue of the quality of human capital and skills and this has long been a weak spot in India. On the face of it, India has a five tier system for skill development comprising:

- The formal educational system with vocational training at the school level and a technical training stream in higher education
- Industrial Training Institutes (ITIs), both public and private offering diploma courses
- Short term vocational courses organized by the National Skill Development Corporation (NSDC) partnering with private training partners
- Sector specific skill development schemes operated by 16 individual Ministries of the Government of India
- In plant training by companies under apprenticeship programs.

#### **Short-term actions**

- Involving Private Industry in the Running of ITIs
- Improving the quality of training provided through short term courses by many training organizations that rely on government support
- Leveraging the Scope of Online Learning
- Imparting soft skills to new entrants in labour force in areas such as communications, problem solving, English speaking, interviewing, people management and other interactions. PSDM should focus on technology intensive high-end courses, including courses in precision agriculture that are relevant to Punjab's needs in future.
- Reducing Job Search Barriers: It is essential to reduce job search barriers for skilled individuals, either recent graduates or those wishing to move to better jobs, which limit their ability to exploit possibilities. One way forward could be to create an online "market place", a platform for students where they can interact and exchange ideas and recommendations along with employers and industry.
- Prepare a composite proposal for improving skills development on the above lines and seek funding from multilateral agencies. ADB is providing support to Meghalaya, Kerala, Madhya Pradesh and Himachal Pradesh, and Assam is about to seek a skills loan from ADB, while Kerala is about to seek a further five-year loan renewal with ADB for skills

#### Medium to Long term actions

- Upgrading the quality of schooling and vocational training for secondary education Short skilling courses cannot compensate for long periods of poor schooling and there is ample evidence that our school systems are not ensuring adequate learning. This shortcoming needs to be addressed by the state's Education Department as a matter of priority. Vocational education should also be main streamed in our schools. With school education becoming universal, we should aim at more than 50% of the students opting for vocational courses.
- Establishment of a Skills University: We need to consider how a Punjab Skills University will align with the UGC's B Voc courses which are now offered in existing universities across the country, including in Punjab. A university with its own curriculum would help address the problem of poorly designed courses that fail to prepare the students for the jobs that are likely to arise. If the university is run jointly by the Government and Industry partners with a commitment to training, it would ensure that the courses are relevant to the current and future needs of industry, and are constantly revamped to adapt to changing needs.
- Building a research capacity to identify future skill needs: The best skilling programs, such as the ones in Brazil and Singapore, have Research Departments that focus mainly on identifying which Skills will be required over the next 5 years. This is done by searching through company registrations and web sites and job openings and applications.
- Creating a system where Industry pays for skill development: Since the demands for superior skills will only increase over time, it is important that we move to a system where the formal sector does much more skill development than it does currently. Many countries have adopted a system whereby a ' training cess" is levied on all industrial units in the formal sector and credited to a skill development fund from which industry is reimbursed for skill development which it undertakes itself. In this way, industry pays for skill development but it is reimbursed for training which it undertakes. Such mechanisms can only be introduced by the Central Government for the country as a whole. Government of Punjab should urge the Union government to explore the possibility of introducing the system in India.

## 7. Social Sector Initiatives



#### Benefit for migrant workers

- Extend benefits of Labour laws to Migrant
  Workers: There is an urgent need for undertaking a
  comprehensive review of the status of legal
  protections accorded to workers in order to ensure
  that migrant workers are also covered. It is
  recommended to designate a senior official in the
  rank of Additional Chief Secretary or Principal
  Secretary in the Chief Minister's office as the
  "Nodal Officer" for improving the well-being of
  migrants in the State.
- Create a single comprehensive data base for migrant workers which would facilitate implementation of various laws and schemes
- Housing for Migrants: It is suggested to draw some proportion of the Construction and Workers Welfare Board funds to provide for State run hostel facilities for workers. A nominal rent can be charged from workers and/ or employers for this purpose. In addition, Government of Punjab could explore PPP models to develop hostel facilities for workers.
- Grants to Districts: Districts with large numbers of incoming migrants need greater funds in order to be able to provide health and other related services to deal with the increased footfall of beneficiaries. Districts also need to be given the flexibility to identify the appropriate use of funds for its specific context. It may be useful to create a position of a District Migration Liaison Officer who will act as a nodal officer tasked with identifying and tracking the gaps in service delivery unique to its migrants and thus help determine the welfare package to be provided.

#### Social Protection for Informal Workers

- Design Principles for an integrated social protection policy: The State needs to move towards a more integrated framework for social protection with fewer schemes dealing with all important areas. The policy should be based on a core set of social protection benefits for all state residents with clear entitlements for landless farmers and migrants into Punjab. It would also be necessary to create a Statewide Social Protection Delivery System to trigger quick release of funds to intended populations.
- Strengthening Social Security Boards: The Boards could include scheme for Rs 3000 a year for college going children, Rs 100000 for accidental death and additional Rs 5000 -Rs 10,000 to cover the funeral expenses, a compensation of Rs 30,000 (minimum wage amounting for 3 months) in case of accident while working, skill development training for unorganized workers registered in the board, specific cell for grievance redressal, revisit and simplify process for registration to the BOCW.

#### Gender & Inclusion

- Strengthening the Women's Self Help Group model through mission mode interventions: The growth of SHGs through such Bank Linkage programs could be a potential model for development as seen in Bihar and Haryana.
- Boosting women's mobility: Addressing the lack of transportation will resolve a critical binding constraint to enabling women's labour force participation.
- Strengthening participation amongst women elected representatives: The expansion of women's representation offers a significant opportunity to boost rural income opportunities.

### 8. Financial Reforms

#### Improving the Ease of Doing Business

- District level assessment of ease of doing business as per the norms laid down by the Department of Promotion for Industry and Internal Trade should be carried our
- Automatic renewal of State industrial, commercial licenses to businesses
- Making **randomized inspections** with prior notice and full transparency.

#### Institutional reforms

- FCI to bear a fair share of the costs of procurement
- The State Government should identify unviable commercial enterprises and divest them. The proceeds from the sale of land, after meeting the liabilities can be used to shore up the State's finances.
- Merge PEPSU Road Transport Corporation and Punjab Roadways: Since departmental operation is known to be inefficient, Punjab Roadways should either be merged with the PEPSU Road Transport Corporation or it should be converted into a separate Corporation.
- Bring Off Budget Revenues onto the Budget:
   There are also off-budget revenue collections from various societies under the Punjab Industrial Development Board. It is necessary to include them as regular revenues under the respective departments. Similarly, it may be useful to get the details of the balances in the bank deposits opened by various DDOs in the Public Works Department.
- Allowing Flexibility in Centrally Sponsored Schemes: A special flexibility window should be introduced in all CSS such that half the total amount released from all CSS schemes last year should be released to the state governments
- **Debt Swap Scheme:** There is a scope for reducing the average cost of government debt-which works out to 8.3 per cent for 2019-20.
- Minimize Ways and Means Advances: The Finance Department should institute systems to provide trigger to anticipate liquidity problems and improve the cash management system to avoid resorting to frequent WMAs.

#### Urban local body reforms

This requires the State to notify property tax floor rates according to circle property values and notify water and sewer charges. Implementing it will also make the state eligible to avail Finance Commission's urban local body grants. The State Government should help municipal corporations to examine successful models and implement the reforms in the current year.

#### Revenue enhancement

- GST Compensation: The Centre must give the highest priority to resolving problems with the technology platform of the GST which is widely believed to be responsible for the poor revenue performance.
- Regularizing Unauthorized Constructions:
   Regularization must be done by asking the violator to pay certain proportion of the guidance value of the land. This measure could help the State Government to raise substantial resources.
- Sale of leased land and premises will increase the State's revenue.
- Fees and Royalties on Minor Minerals: This is the time to revise fees and royalties payable on minor minerals. The State should explore this source to raise more revenue as the revenue potential in the sector has not been fully realized.
- Taxes on Alcohol: As the demand for both India Made Foreign Liquor (IMFL) and Beer and Wine are relatively price inelastic, it would be advisable to increase the duty. Punjab should consider substantially increasing the rates at least for the next two years.
- Sale of Residential Sites: An inventory should be made of parcels of land in major cities of the State such as Mohali, Patiala, Jalandhar, Amritsar, Ludhiana which can be converted into residential, commercial and industrial plots and can be sold by the development authorities in these cities on behalf of the Government.
- Increasing the Ceiling for Profession Tax: The State Government should make a representation to the Union government and the Finance Commission that there is no justification for keeping the ceiling fixed for 32 years and therefore, seek its revision to INR. 20,000.

#### **Expenditure control**

- Deferment of Salaries: The State Government has deferred the payment of dearness allowances to the employees and is currently lagging the Central DA rate by 16 per cent on old scales. Given the grim fiscal scenario, it may become necessary not to make payment of the deferred DA or arrears when moving to a new scale.
- State Pay Scales: It is recommended that the State should implement only the Central pay scales for all future employees. The higher pay scales of the existing employees need not be reduced but they should not receive any additional payments until the Central pay scales catch up with the current pay.
- Size of Police: The State Government would be well advised not to raise additional contingents of police and also to refrain from fresh recruitments for the next few years.

Endnotes





## **Endnotes**

#### 1. Introduction

- 1 See WHO, Strategic Preparedness and Response Plan, dated 03.01.2020
- 2 WHO, "Coronavirus: What You Need To Know", dated 09.03.2020
- 3 WHO Director-General's opening remarks at the media briefing on COVID-19, dated 11.03.2020
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- 11 The End of Laissez-Faire, John Maynard Keynes (Hogarth Press, July 1926).
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- 13 Mission Fateh Press Release

#### 2. Institutional mechanisms

1 See Government of Punjab, Department of General Administration, Order dated 19.06.2020 for the list of committees and their terms and conditions

## 3. Tackling lockdown related challenges

- 1 Press Release-Directorate of Information and Public Relations
- 2 Press Release-Directorate of Information and Public Relations
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- 4 Press Release-Directorate of Information and Public Relations
- 5 Press Release-Directorate of Information and Public Relations
- 6 Press Release-Directorate of Information and Public Relations
- 7 National Herald India, 18.04.2020, "Punjab Police officer, deputed on COVID-19 frontline, loses life to the deadly virus"
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- 9 Press release- Directorate of Information and Public Relations
- 10 Aninews, 19.04.2020, "Punjab DGP announces welfare measures for police personnel on COVID-19 duty"
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- 15 The Tribune India, 12.04.2020, "Police deliver sanitary napkins for village women on doorstep"
- 16 The Tribune India, 18.04.2020, "Birthday of 1-year-olds made special, courtesy cops"

## 4. Supporting stranded people

- 1 Punjab COVID Response 29.05.2020
- 2 See Press Release "Government of India issues orders prescribing lockdown"
- 3 See Press Release "Press release on distribution of dry ration"
- 4 See Press Release "Punjab Police distributes food packets to the needy"
- 5 See Press Release "Education minister-School buildings for shelter of migrant Labourers"
- 6 See Press Release "1200 migrants enter J and K after twenty days in Pathankot"
- 7 Punjab COVID Response 29.05.2020
- 8 See Tweet by Captain Amarinder Singh, dated 05.05.2020
- 9 DoHFW Advisory dated 06.05.2020 "Advisory on maintaining the hygiene and sanitization for buses"
- 10 See Press Release "100th train leaves Punjab"
- 11 See Press Release "First Evacuation flight lands at Mohali Airport"
- 12 MHA Advisory dated 24.05.2020. "Movement of Migrant Workers on Foot"
- 13 See Press Release "Capt Amarinder Singh announced 14 day home quarantine"
- 14 See Press Release "Movement of migrants via trains"
- 15 Information provided by Nodal officer on 02.06.2020
- 16 Information provided by Nodal officer on 02.06.2020
- 17 Information provided by Nodal officer on 02.06.2020
- 18 COVID-19 SCCR Report, 21.05.2020. page 39.
- 19 COVID-19 SCCR Report, 21.05.2020. page 40.
- 20 Affidavit submitted by Principal Secretary Labour on behalf of the State of Punjab to the Hon'ble Supreme Court of India on 03.06.2020
- 21 See Press Release "COVID Relief efforts by labour department"
- 22 See Press Release Punjab CM-operation of industries with migrant workers."
- 23 MHA Advisory dated 24.05.2020 "Guidelines for containment of COVID-19 Epidemic in the country"
- 24 Revival of Industrial Activity Post COVID-19 Lockdown, Report by Dept. of Industries and Commerce, Govt. of Punjab
- 25 Affidavit submitted by Principal Secretary Labour on behalf of the State of Punjab to the Hon'ble Supreme Court of India on 03.06.2020
- 26 Information provided by Nodal Officer on 03.06.2020. Data provided is as of 02.06.2020.
- 27 MHA Order dated 19.05.2020
- 28 COVID-19 SCCR Report, 21.05.2020. pg 40
- 29 See Press Release "Satsang Ghars providing aid to needy"
- 30 Information provided by Nodal Officer on 31.05.2020
- 31 See Press Release "Press release on distribution of dry ration"
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- 35 COVID-19 SCCR Report, 21.05.2020. page 39.
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- 37 Information provided by Nodal officer on 02.06.2020
- 38 Information provided by Nodal officer on 02.06.2020
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- 47 See Press Release "Punjab government appoints honorary coordinators"
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- 51 See Press Release "Capt Amarinder Singh urges for evacuation of stranded Nanded pilgrims"
- 52 See Tweet by Capt. Amarinder Singh, dated 22.04.2020
- 53 Capt. Amarinder Singh, Interview with Barkha Dutt on Mojo. 06.05.2020
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- 3 ICMR, Revised Testing Strategy for COVID-19 in India (Version 5)
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- 5 See Press Release, "10 TrueNat machines to be installed at District Hospitals to conduct COVID-19 Test"
- 6 See Press Release, "Punjab caps COVID treatment rates for private hospitals"
- 7 MoHFW, Clinical Management Protocol for COVID-19 (Version 4)
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- 9 Indian Express, 05.05.2020. "Expert audit reveals: Behind Punjab's COVID fatalities comorbidity, older patients, and delay in getting treatment."
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- 3 See Press release "Sick people get treatment at home in Punjab on e-Sanjeevani app"
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### 7. Interdepartmental convergence

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- 2 Information provided by Nodal officer as per memo number: LandC-PIU0MISC/41/2020-S6
- 3 See Press release "News report on functional industrial units in Punjab"
- 4 See Press release "Packaging of milk products in a VERKA milk plant"
- 5 See Press release "Sanitization of households"
- 6 See Press release "Home visits conducted in villages by the officials of the Department to monitor the feed and fodder"
- 7 See Press release "Punjab's biggest isolation facility established"
- 8 See Press release "IED project boon for children with special needs"
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## 8. Agriculture and wheat procurement

- 1 MHA Order dated 24.03.2020
- 2 See Press Release "Punjab govt led by Capt. Amarinder sets up 4 committees to deal with various aspects of covid-19 containment"
- 3 Hindustan Times, 02.04.2020. "Punjab mulls use of rice mills' premises for wheat procurement"
- 4 Nation News, 07.04.2020. "30 member mandi board control room to coordinate harvesting procurement season in Punjab"
- 5 See Press Release "Agriculture deptt issues directions regarding harvesting"
- 6 See Press Release "Punjab govt ties up with ola to launch automated techology app to issue e-passes to farmers based on historical data"
- 7 See Guidelines "Advisory on Safe Farming operations (Procurement and Marketing) in wake of COVID-19 pandemic."
- 8 See Press Release "<u>Direct payment to farmers</u>"
- 9 The Tribune, 28.01.2020. "Rules amended, direct payment to Punjab farmers"
- 10 Hindustan Times, 31.03.2020. "Wheat storage: Need FCI guarantee for rent of unused silos, Punjab tells Centre"
- 11 Hindustan Times, 31.03.2020. "Farmers worried as combine harvesters from Punjab stuck in other states"
- 12 DoHFW Advisory dated 22.04.2020 "Advisory on safe farming operations (procurement and marketing)

## 9. Providing relief measures

- 1 UN Framework For The Immediate Socio-Economic Response To COVID-19, April 2020
- 2 NDMA, Disaster Management Act 2005

## 10. Looking back, moving forward

The recommendations in this chapter summarize the following report: "Medium & Long Term Post-COVID Economic Strategy for Punjab: A Multi Sectoral Approach to Building Resilience and Recovery", dated 31.07.2020

# About MGSIPA

Mahatma Gandhi State Institute of Public Administration (MGSIPA) is an ISO 9001:2015 and ISO 14001:2015 certified Administrative Training Institute (ATI) of Government of Punjab at Chandigarh. The institute is engaged in imparting quality training at induction and mid-career level to officers and officials of Government and its Boards, Corporations and other Organizations at the State and National Level using both in classroom and elearning modes. It also undertakes research studies, impact evaluation and consultancy in public administration, governance, urban development, management and public policy.

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