

Supplementary table 1. Public health interventions implemented by Greater Chennai Corporation to control COVID-19 in Chennai, India, 2020

Strategy	Interventions
Surveillance	Passive surveillance in all Government tertiary care facilities, COVID-19 sample collection centres and private hospitals approved for COVID-19 care
	Outreach fever camps in 500+ locations every day from May 2020 onwards with a team of doctor, nurse and lab technician in full PPE to evaluate the symptomatic individuals and contacts of confirmed cases. All the individuals who attended the camps were evaluated for hypoxia using a finger pulse oximeter.
	10,000+ volunteers (18 to 25 year-old) did house to house visits to identify the symptomatic individuals and referred them to fever camps or testing centres
RT PCR Testing	Sample collection was done in 42 new sample collection centres, 10 mobile collection units, 4 Government hospitals, besides private hospitals and laboratories. All individuals who got tested were evaluated for hypoxia using a finger pulse oximeter.
	Testing done in 13 Government and 39 private labs with total capacity to process 15000+ samples per day
Contact tracing	Dedicated call centre with 200+ trained contact tracers
	Sanitary inspectors visited the households of COVID-19 cases for contact tracing
Triaging of COVID-19 confirmed cases	15 triaging centres established to screen COVID-19 patient, patients advised home isolation or referred to hospital-based on age, severity, co-morbidities and laboratory tests
Home isolation/ Quarantine	Phone-based monitoring of patients in home isolation by a dedicated team of doctors and paramedics and facilitated hospital transfer based on the clinical condition if required.
	Home quarantine and isolation monitoring by paid FOCUS (Friends of COVID persons Under surveillance) volunteers who visited the COVID-19 patients and contacts to monitor health status/ compliance and provided support for procuring groceries, medicines or any other needs.
Hospital-based care	80 ambulances, 64 mobile medical units, 60 mini-buses, 20 special services vehicles (102 services), and 65 twelve-seater vehicles to transport the patients
	Government COVID care centre beds, tertiary and secondary care hospitals with oxygen beds and ICU beds
Integrated data management system and data analysis	An integrated data management system used at all levels to capture data from various levels from sanitary inspector to the control room. The data elements included a line list of cases with address, line list of contacts, the outcome of each case and bed occupancy status.
	Rigorous data analysis up to street level to map the hotspots for planning fever camps, aggressive testing and intensifying non-pharmacological interventions.
Mandatory usage of face mask	Government advised the usage of face mask by the people during interaction with others since April 2020. The usage of the face mask was made mandatory while in public places since mid-April 2020.

Supplementary table 2. Various activities allowed during different periods of lockdown in Chennai, India, 2020

From	To	International travel	Domestic road travel	Domestic train travel	Domestic air travel	Local Public transport	Educational institutions	Offices	Industries	Worship places	In-house dining	Gathering	Hotels and recreation clubs	Remarks
05-Feb	23-Mar	P	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Visas cancelled for those from selected countries
24-Mar	03-May	X	X	X	X	X	X	X	X	X	X	X	X	Except for essential services. Funeral - 20 persons allowed
04-May	31-May	P	P	P	P	X	X	P	P	X	X	X	X	Government offices - 50% capacity, IT offices - 10%, and industries - 25%. All stand-alone shops could operate except air-conditioned establishments, salons, spa, and beauty parlours. Funeral & wedding - 20 persons allowed. Repatriation international flights started under Vande Bharat Mission
01-Jun	18-Jun	P	P	P	P	P	X	P	P	X	P	X	X	All private offices, showrooms, restaurants, tea shops, barbershops and beauty parlours permitted to operate at 50% capacity without air conditioning. Public transport - 50% capacity, only within Greater Chennai Corporation limits. Funeral & wedding - 50 persons allowed

19-Jun	05-Jul	P	X	P	P	X	X	P	P	X	X	X	X	Owing to a continuous increase in cases, the Government enforced a complete lockdown with minimal permissions. Government offices and banks could operate at 33% capacity. Inter-state and inter-district travel were restricted only to essential travel through pre-travel online registration and approval.
06-Jul	31-Jul	P	P	P	P	P	X	P	P	X	P	X	X	Same as pre-lock down period (1 June, 2020, to 18 June, 2020), with the exception to open sports complexes and stadia with no spectators. Interstate trains and flights were allowed. Funeral - 20 persons & wedding - 50 persons allowed
01-Aug	31-Aug	P	P	P	P	P	X	P	P	X	P	X	X	Private offices, industries, restaurants and tea shops permitted to operate at 50% capacity. Independence Day celebrated with strict social distancing and mask compliance in Government premises. Since 14 August, inter-district and inter-state travel resumed with no restrictions on the movement of people. Funeral - 20 persons & wedding - 50 persons allowed
01-Sep	30-Sep	P	✓	✓	✓	✓	X	✓	✓	✓	✓	X	✓	Public and private bus transport and metro rail services allowed between districts and within the city, but not between states. All except educational institutions were permitted to open at 100% capacity. Funeral - 20 persons & wedding - 50 persons allowed
01-Oct	31-Oct	P	✓	✓	✓	✓	X	✓	✓	✓	✓	X	✓	
X	Not allowed	P	Allowed partially				✓	Allowed with 100% capacity						

Supplementary Table 3. Distribution of RT-PCR confirmed COVID-19 cases and deaths by age and gender, Chennai, India, March to October 2020

Characteristics		Mar'20		Apr'20		May'20		Jun'20		Jul'20		Aug'20		Sep'20		Oct'20		Overall	
		#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
COVID-19 cases																			
Sex	Female	9	38	322	37	5518	40	17381	40	16892	42	14093	40	11783	40	11561	39	77561	40
	Male	15	62	560	63	8401	60	25662	60	23319	58	20706	60	17983	60	18241	61	114889	60
Age group	≤20	3	13	129	15	1776	13	4523	11	5373	13	4418	13	2789	9	2437	8	21448	11
	21-40	9	38	400	45	6045	43	17051	40	15445	38	13504	39	11164	38	11017	37	74635	39
	41-60	4	17	265	30	4639	33	15055	35	13436	33	11777	34	10563	35	10877	36	66616	35
	61-80	7	29	79	9	1346	10	5873	14	5414	13	4627	13	4676	16	4971	17	26993	14
	>80	1	4	9	1	115	1	542	1	543	1	473	1	574	2	510	2	2758	1
Total cases		24	100	882	100	13921	100	43044	100	40211	100	34799	100	29766	100	29812	100	192450	100
COVID-19 deaths																			
Sex	Male	1	100	16	73	229	65	818	72	522	68	383	68	281	70	227	71	2452	69
	Female	0	0	6	27	122	35	323	28	250	32	184	32	119	30	94	29	1091	31
Age group	≤20	0	0	0	0	1	0	3	0	4	1	2	0	0	0	1	0	11	0
	21-40	0	0	2	9	24	7	60	5	43	6	19	4	11	3	7	2	166	5
	41-60	0	0	11	50	139	40	374	33	210	27	148	26	107	27	62	19	1051	30
	61-80	1	100	7	32	164	47	574	50	409	53	298	53	209	52	190	59	1852	52
	>80	0	0	2	9	22	6	128	11	102	13	89	16	59	15	61	19	463	13
Total deaths		1	100	22	100	350	100	1139	100	768	100	556	100	386	100	321	100	3543	100