

COVID 19: Kerala Weekly Trend Analysis

22 November 2020

Project: Jeevan Raksha is a initiative of Proxima which focuses on Advocacy, Analytics, and Awareness in the area of healthcare

Mission: Actively contribute towards **Right to Health** as constitutional right of Indian citizen

Project: Jeevan Raksha has been in the forefront of providing sharper analytical insights on emerging pattern of COVID 19 in India to the Central / State Government administrations and general public. The contribution is appreciated by many state Governments.

Project: Jeevan Raksha acknowledges the technical support and guidance of Indian Medical Association (**IMA**) and Public Health Foundation of India (**PHFI**)



satyam-eva jayate, Truth alone triumphs, was adopted as the national motto of India on 26 January 1950

In COVID management, **Truthiness** in the disclosed data (data integrity) of Testing, Positivity, Recovery, and Fatality; or **truthfulness** of a individual about his/her (including family) health condition, is vital for India's efforts to save lives of the people.

A Robust, universally applicable and Scalable Management System is vital to manage Communicable Disease

The management of communicable diseases without clear medical solutions in the vicinity, requires effective data mining, analysis, and appropriate inferences of the virus spread in order to achieve the following key objectives:

- **Assessment:** Assess and examine the velocity of the virus spread and pattern of infection in the given region.
- **Measurement:** Effectively measure the outcome of the various intervention
- **Forecast:** Based on the various critical data pattern, extrapolate the trend which would facilitate the administration to ramp-up the required resources

Proxima Pandemic & Epidemic Management System



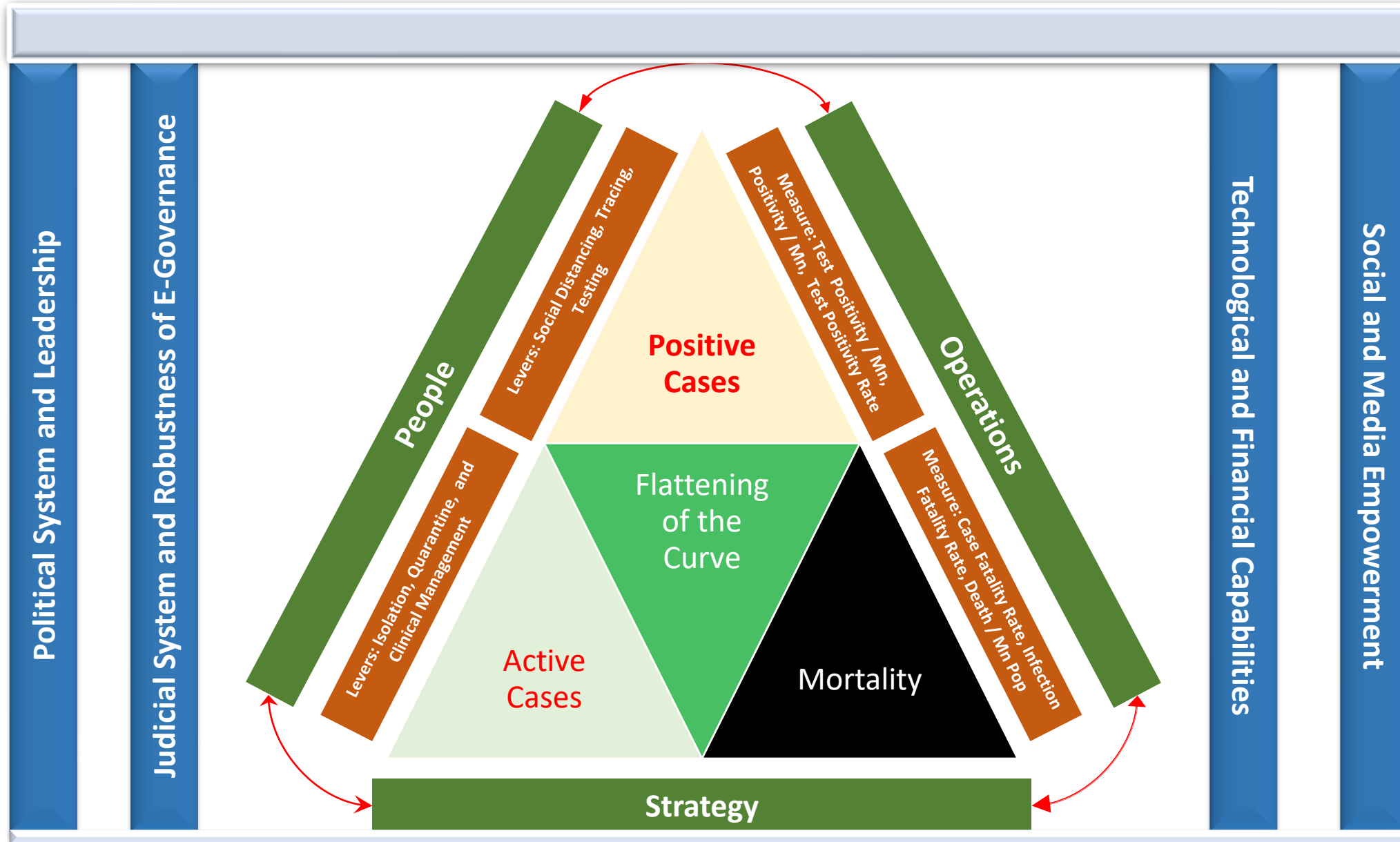
In an Pandemic / Epidemic, the virus spreads linearly and rapidly. The strategy to manage and flatten the growth of the virus depends on various systematic and unsystematic drivers.

Therefore, strategy formulation should factor the following:

- Political System and Leadership; Judicial system and robustness of e-Governance; Technological and financial capabilities; and more importantly social and media empowerment.
- There must be complete synergy between 3 critical processes – Strategy, People, and Operations. In case if any of these processes are weak, then there are chances of ending up with poor results
- The flattening of the curve of virus growth will happen only the levers are used effectively and efficiently.
- Robust review mechanism: The Control rooms must have strong process and systems which provides real-time right and appropriate data and analysis which helps the decisions makers to take appropriate and timely decisions.

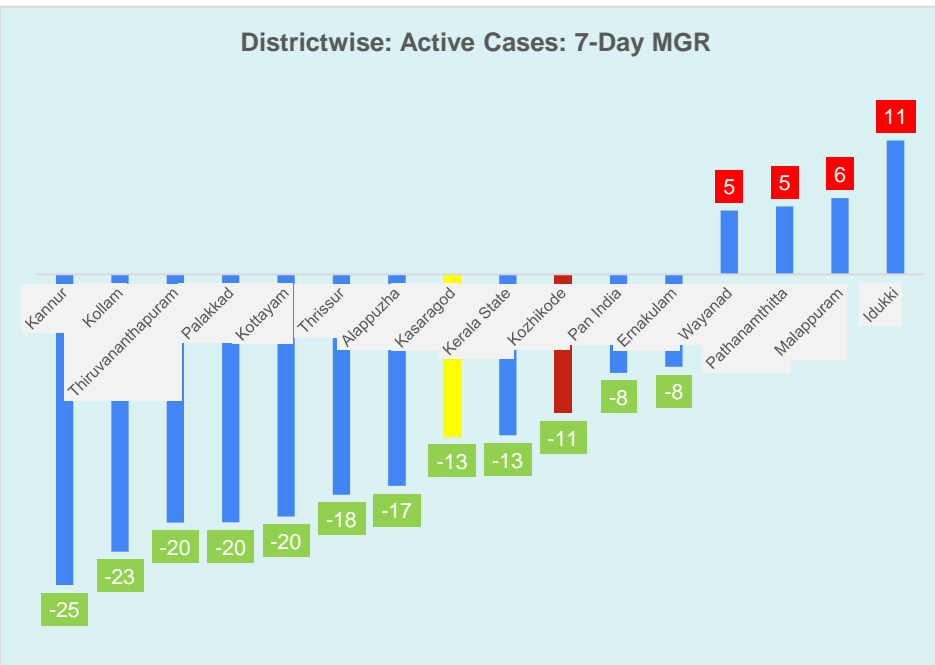
Proxima Pandemic & Epidemic Management System (PPMS)

JEEVAN RAKSHA
PROTECTING LIVES

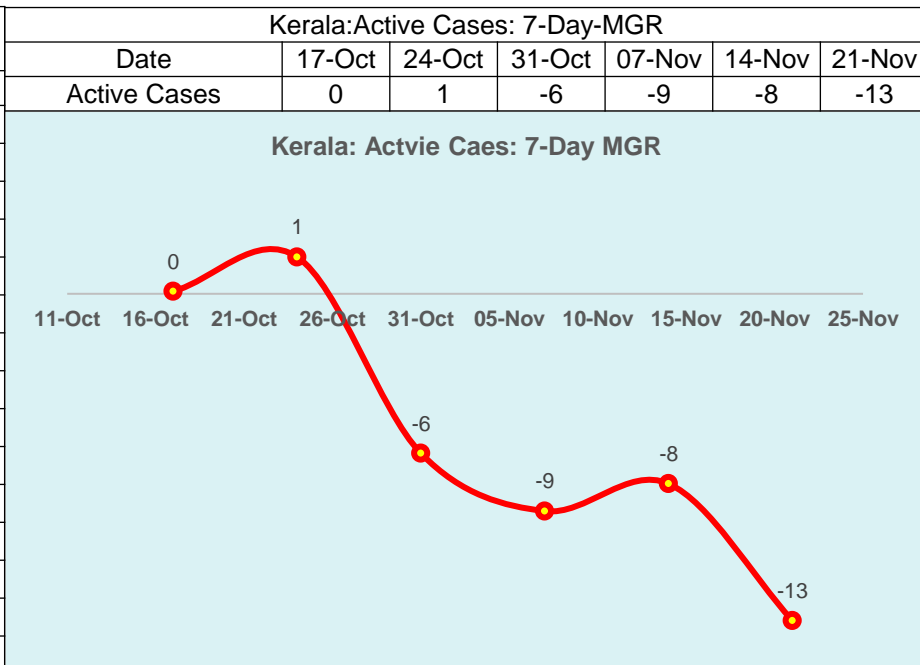


Kerala: Active cases in Negative Zone for 4 consecutive Weeks

- Due to aggressive testing in September / Early October, Kerala could identify large number of infected people when the virus onset was in mild / very mild stage. This has resulted in Kerala witnessing drop in active cases by over 10,000 in a single week.
- Active cases in 10 out of 14 districts has degrown.
- The drop in active cases is primarily due to 2 factors, drop in average number of daily new cases and high rate of recovery of the infected people
- During the week, Kerala witnessed higher drop in Active cases 7-Day MGR when compared with national average of 11%



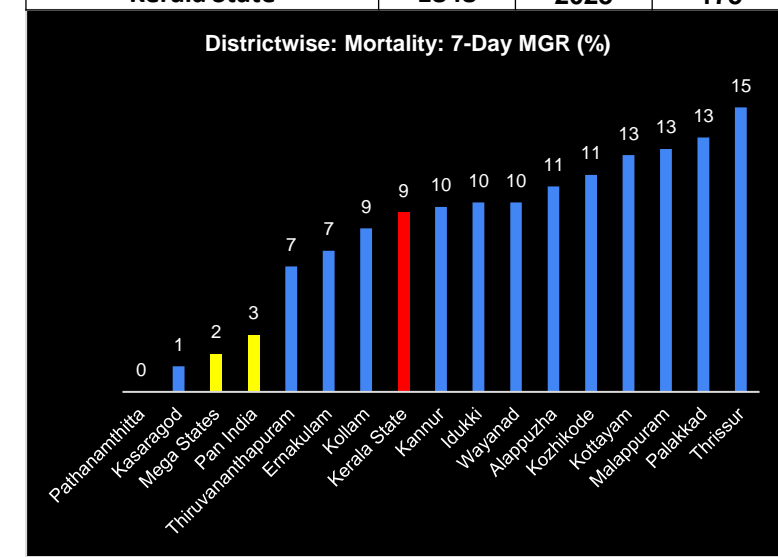
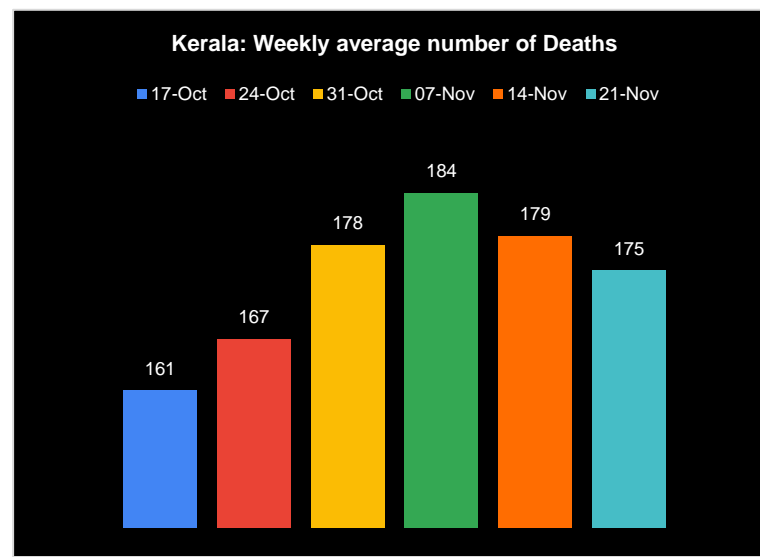
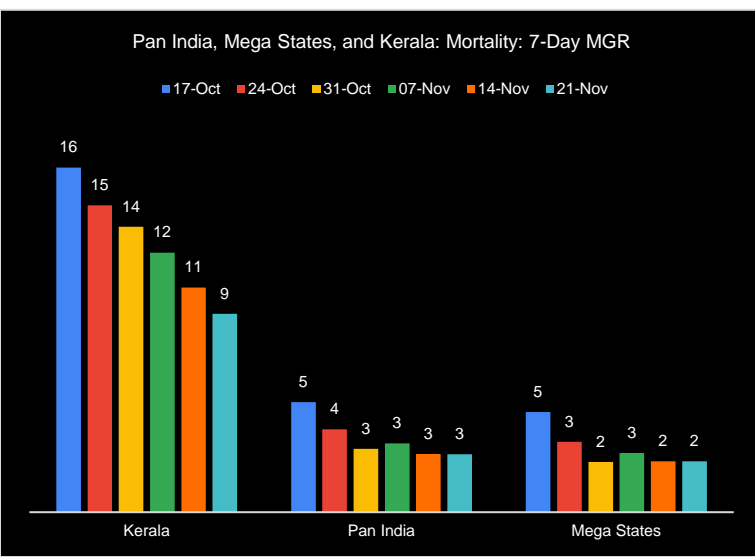
Districtwise Active Cases Changes during 14 - 21 Nov			
Districts	14-Nov	21-Nov	Changes
Thirissur	8994	7384	-1610
Alappuzha	8148	6747	-1401
Palakkad	6722	5368	-1354
Thiruvananthapuram	6471	5165	-1306
Kollam	5234	4055	-1179
Kannur	4440	3320	-1120
Kottayam	5038	4046	-992
Kozhikode	7959	7060	-899
Ernakulam	9958	9208	-750
Kasaragod	1989	1727	-262
Wayanad	1125	1183	58
Pathanamthitta	2006	2116	110
Idukki	1989	2205	216
Malappuram	6856	7280	424
Kerala State	76929	66864	-10065



Limited improvement in Mortality Pattern

- Kerala continues to witness average weekly death toll of around 175 – 177
- Drop in Mortality 7-Day MGR indicates increased in doubling period
- During the week 14 – 21 November, Trivandrum witnessed 32 deaths, highest among all the districts followed by Thrissur (26) and Malappuram (24).
- Pathanamthitta was successful in ensuring NIL death during the week.
- Thrissur, Palakkad, Malappuram, and Kotayam are having higher Mortality MGR. This means the doubling period is relatively faster in these districts when compared to other districts.

Districtwise Mortality Changes during 14 - 21 Nov			
Districts	14-Nov	21-Nov	Changes
Pathanamthitta	16	16	0
Kasaragod	74	75	1
Idukki	10	11	1
Wayanad	20	22	2
Kottayam	72	81	9
Palakkad	67	76	9
Kollam	139	151	12
Kannur	133	146	13
Ernakulam	188	202	14
Alappuzha	129	143	14
Kozhikode	157	175	18
Malappuram	187	211	24
Thrissur	173	199	26
Thiruvananthapuram	483	515	32
Kerala State	1848	2023	175

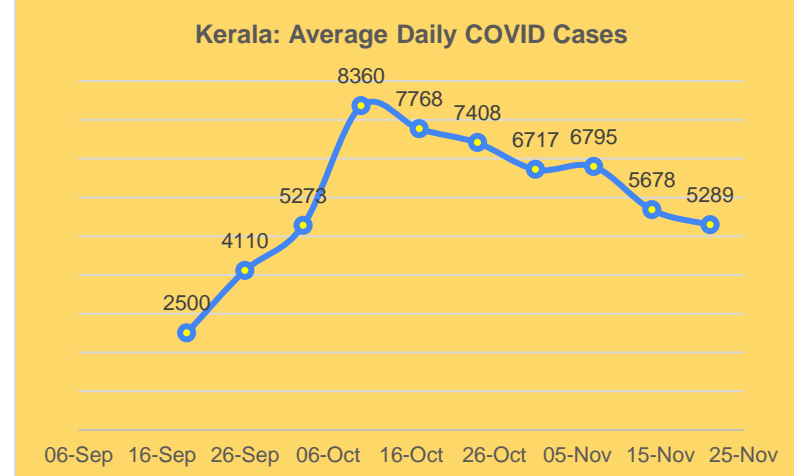
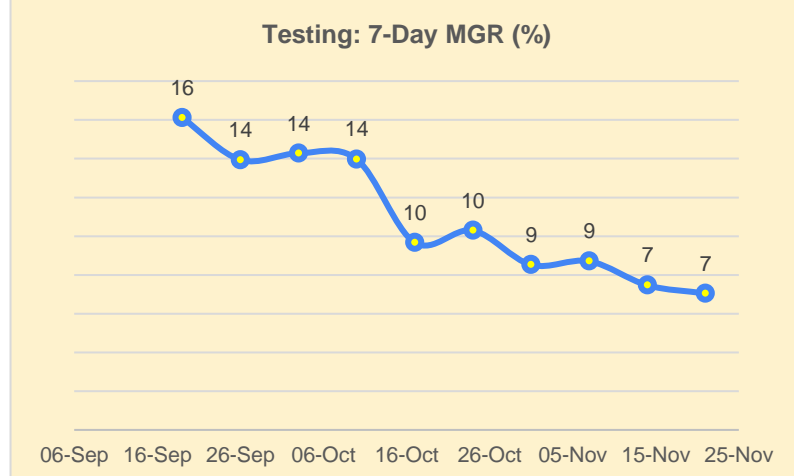
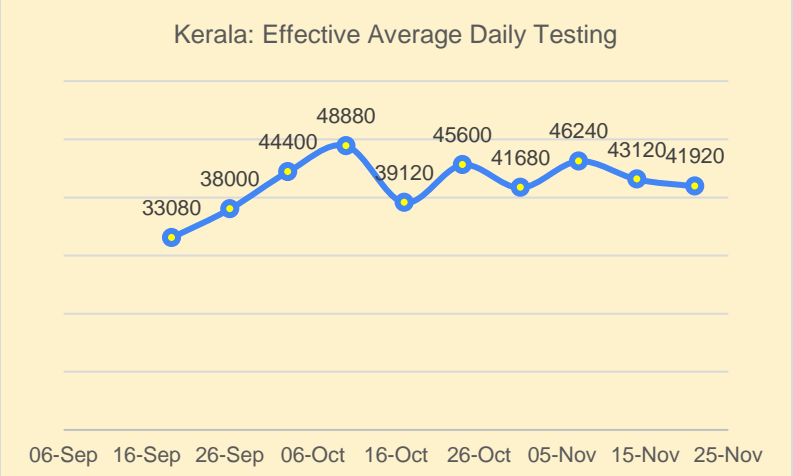
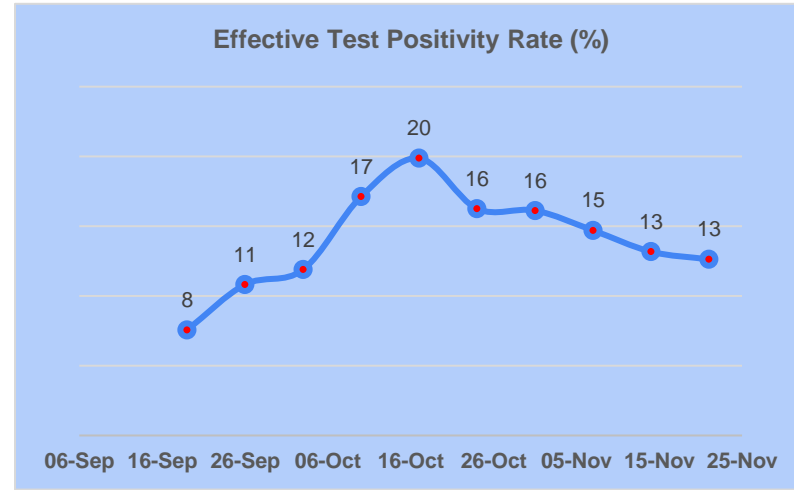


Testing Capabilities: Running out of Steam



- Since mid October, there is a sharp drop in average daily testing from the peak of 61,100 to 52400 during the week ending 21st November.
- The high Gross TPR of 9.6% or the Effective TPR of 12% indicates that the testing capabilities of Kerala is stretched.
- Due to lack of resources, the state is largely testing the symptomatic people.
- The drop in TPR indicates that the percentage of people led testing has increased for precaution as well as transactional purposes.
- The drop in average number of cases is a very encouraging sign. However, it is premature to conclude that the state has crossed its peak. Clear pattern will emerge after 4-6 weeks.

Kerala: Testing Analysis										
Week Ending ->	19-Sep	26-Sep	03-Oct	10-Oct	17-Oct	24-Oct	31-Oct	07-Nov	14-Nov	21-Nov
Avg Daily Testing	41350	47500	55500	61100	48900	57000	52100	57800	53900	52400
Effective Avg Daily Testing	33080	38000	44400	48880	39120	45600	41680	46240	43120	41920
Avg Daily Cases	2500	4110	5273	8360	7768	7408	6717	6795	5678	5289
Gross TPR	6	9	10	14	16	13	13	12	11	10
Effective TPR	8	11	12	17	20	16	16	15	13	13
7-Day: MGR (%)	16	14	14	14	10	10	9	9	7	7



Data source and disclaimer

1. The data collated and analysed based on secondary data. The primary sources are:
<https://www.mohfw.gov.in/> <https://www.covid19india.org/> www.google.com; www.wikipedia.org;
<https://www.worldometers.info/coronavirus/#countries>
2. Updated testing data of 5 mega cities (Ahmedabad, Bengaluru, Chennai, Delhi, and Mumbai) are available in the public domain. Whereas, updated testing data of Kolkata and Hyderabad is not to be found by our researchers. The analysis of average testing data has limitation with respect to data of 5 mega cities. Therefore, readers of this report need to factor the same for further inferences.
3. Information related to current status of Telangana and its districts are not available in the public domain. Therefore, readers of this report need to factor the same for further inferences.
4. All views and recommendations in the report are solely from Proxima only
5. The user of this presentation is advised to revalidate the shared data from authorised public institutions.

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Thank you