

**COVID 19 Management: Performance Review & Recommendations**

**State: Karnataka**

**April 2021**



## About us

**Project: Jeevan Raksha** is an initiative of Proxima ([www.proximaglobal.in](http://www.proximaglobal.in)) which focuses on Advocacy, Analytics, and Awareness in the area of healthcare

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, media, and general public. The contribution is appreciated by many state Governments.

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

Project: Jeevan Raksha acknowledges the technical support and guidance of Public Health Foundation of India (PHFI) <https://phfi.org/>

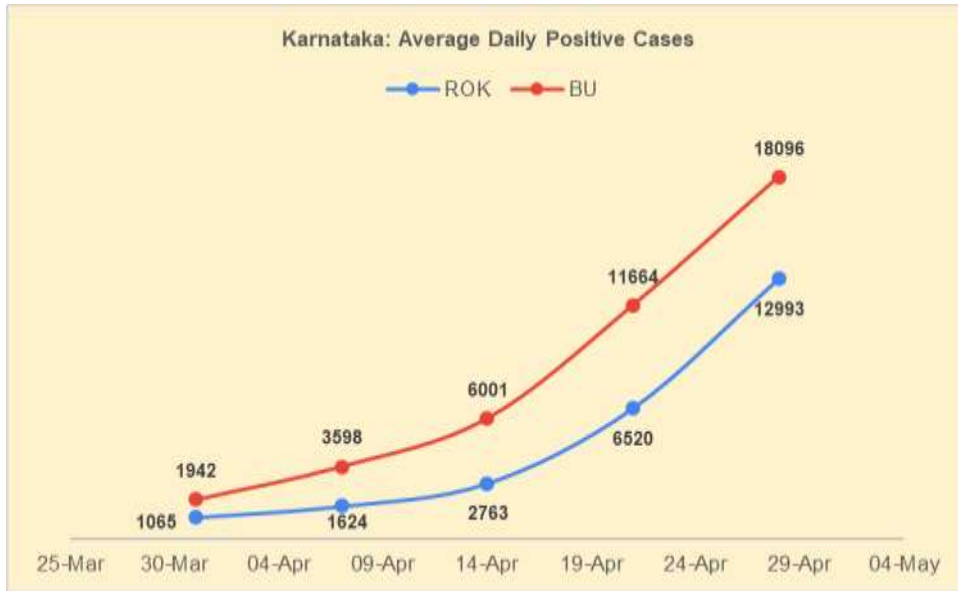
For Latest update: <https://twitter.com/jeevanrakshaa>

**Karnataka: Districtwise Positivity Case Growth Pattern Analysis**

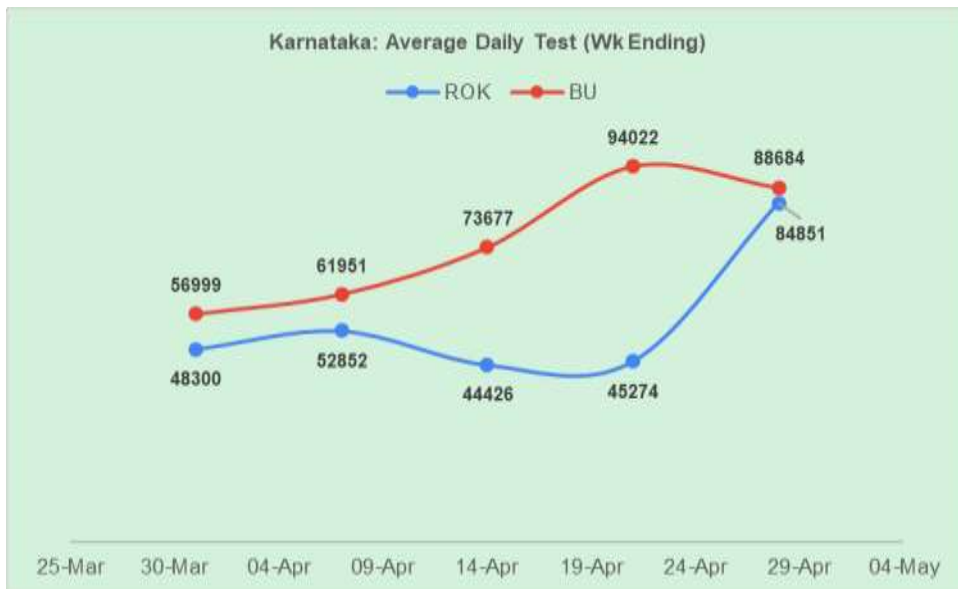
Karnataka: Positivity Cases Moving Growth Rate: MGR (%) Pattern							
Districts	Number of Positive Cases			7-Day: MGR (%)		28-Day: MGR (%)	
	31-Mar	21-Apr	28-Apr	Increase	MGR (%)	Increase	MGR (%)
Bidar	9053	14322	16954	2632	18	7901	87
Kolar	10525	12761	17170	4409	35	6645	63
Tumakuru	26980	34219	42733	8514	25	15753	58
Kodagu	6357	7117	9913	2796	39	3556	56
Kalaburagi	23969	31636	36999	5363	17	13030	54
Chamarajnagar	7078	8274	10276	2002	24	3198	45
Bengaluru Rural	19574	23179	27556	4377	19	7982	41
Mandya	20232	23361	28368	5007	21	8136	40
Chikkaballapura	14039	15995	19406	3411	21	5367	38
Raichur	14479	16132	19989	3857	24	5510	38
Vijayapura	15051	17721	20667	2946	17	5616	37
Ramanagara	7506	8574	10151	1577	18	2645	35
Mysuru	55810	63993	72056	8063	13	16246	29
Hassan	29487	33180	37959	4779	14	8472	29
Dharwad	22979	26035	29309	3274	13	6330	28
Yadgir	10813	12050	13606	1556	13	2793	26
Ballari	39831	43537	49434	5897	14	9603	24
Chikkamagaluru	14251	15504	17286	1782	11	3035	21
Koppal	14074	15216	16947	1731	11	2873	20
Bagalkote	13912	14998	16749	1751	12	2837	20
Uttara Kannada	14991	16566	18034	1468	9	3043	20
Udupi	25241	27483	30314	2831	10	5073	20
Dakshina Kannada	35697	39244	42729	3485	9	7032	20
Shivamogga	22795	24513	26468	1955	8	3673	16
Belagavi	27414	29421	31436	2015	7	4022	15
Davanagere	22605	24002	25456	1454	6	2851	13
Chitradurga	15154	16142	16990	848	5	1836	12
Gadag	11192	11804	12448	644	5	1256	11
Haveri	11052	11512	12036	524	5	984	9
Rest of Karnataka (RoK)	562141	638491	729439	90948	14	167298	30
Bengaluru Urban (BU)	434827	583675	710347	126672	22	275520	63
Karnataka State (RoK + BU)	996968	1222166	1439786	217620	18	442818	44

**Positive Cases in Bengaluru Urban (BU) and Rest of Karnataka (excluding BU) is raising at alarming rate.**

Rest of Karnataka and Bengaluru Urban: Avg Daily Cases					
	31-Mar	07-Apr	14-Apr	21-Apr	28-Apr
ROK	1065	1624	2763	6520	12993
BU	1942	3598	6001	11664	18096

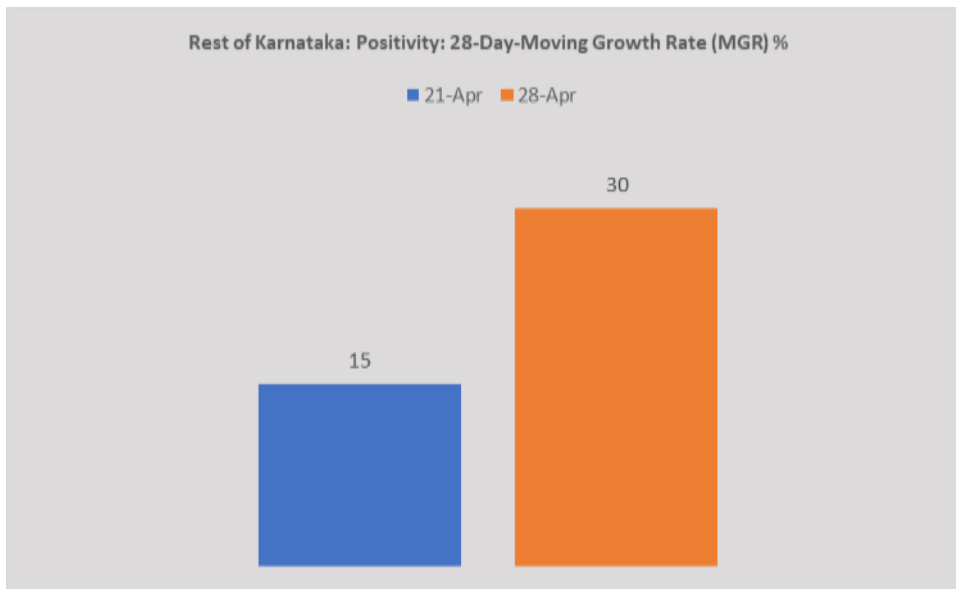


Rest of Karnataka and Bengaluru Urban: Avg Daily Tests					
	31-Mar	07-Apr	14-Apr	21-Apr	28-Apr
ROK	48300	52852	44426	45274	84851
BU	56999	61951	73677	94022	<b>88684</b>



**Drop in average daily testing in BU has dropped. Serious concern.**

**Sharp increase in 7-Day and 28-Day Moving Growth Rate indicates virus is spread wider and faster. This also indicates that the testing is adequate**



### Key Observations:

1. **10-fold increase in Daily Average Cases:** Week ending 31<sup>st</sup> March 2021, the average daily new COVID cases was 3007. It has increased to 31089.
2. **75% increase in daily Testing:** The average daily testing in the week ending 31 March 2021 was 105299. It has increased to 173535. In Pandemic, increase in testing will lead to increase in new positive cases.
3. **Low TPR and High MGR:** Test Positivity Rate (TPR) is the indicator of testing capacity of the Nation/State/District. But it is often misunderstood as the indicator of virus spread.
  - a. TPR of 5% and above indicates that the testing capacity of the region is stretched. Karnataka's TPR as on 28<sup>th</sup> April is 5.7%, which indicates the state has adequate testing capabilities.
  - b. TPR should be seen in juxtaposition with Moving Growth Rate of Positive cases. When a nation is in Pandemic, a region should aim to maintain 7-Day MGR of positive cases below 2.5% and TPR below 5%.
    - i. Karnataka's 7-Day MGR of positive cases on 28<sup>th</sup> April was 18%, whereas TPR is 5.7%. This clearly indicates that the current level of testing is not adequate to contain the spread of virus.
4. **Drop in Average Daily Testing in Bengaluru Urban (BU):** In the week ending 21<sup>st</sup> April, the average daily testing was 94022, whereas on the week ending 28 April, the average test during the week has dropped to 88684. However, during the same period, 7-Day MGR of positive cases has shot up to 22%. The number of positive cases has increased from 583675 to 710347. The consequence of uncalled drop in daily testing would lead to deterioration of health condition of asymptomatic patients. This could lead to demand for hospitalisation as well as mortality.

### Recommended Targets for Each Districts:

1. Moving Growth Rate is the effective tool to measure the containment management of the district and also the velocity of spread of virus. Every district should try to keep MGR below the State Average MGR and further improve upon the same.
2. Reduce 7-Day Moving Growth Rate (MGR) which is currently at 18%.
  - a. District which is having 7-Day Moving Growth Rate above 18% should strive to bring it down below 18%, state's average 7-Day MGR.
  - b. Districts which is having 7-Day MGR below 18% should strive to improve their own MGR and reduce it further.
3. Increase in Daily Average Testing
  - a. Increase the average daily Testing in May by atleast 50% of April 2021.

**Annexure**

**Insight on Moving Growth Rate (MGR)**

Moving Growth Rate is %ge expression of growth of the value during the period as % of value at the beginning of the period.

**Illustration:** if the Positive Cases / Active Cases / Mortality is 100 at the end of Week 1 and at the end of Week 2 if the value increases to 125, MGR = 25%/

- Formula: MGR could be calculated by using the formula:  $(Wk-2 - Wk-1)/Wk-1 * 100$

<b>Moving Growth Rate Movement and its indicators</b>			
<b>MGR Movement</b>	<b>Doubling Period</b>	<b>Number of Daily Cases</b>	<b>Indicator in Testing</b>
Increases	Decreases	Increases	Testing is low and Slow
Decreases	Increases	Decreases	Testing in Adequate and fast

### **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](http://www.google.com); [www.wikipedia.org](http://www.wikipedia.org); <https://www.worldometers.info/coronavirus/#countries> / <https://coronavirus.jhu.edu/>
2. Updated testing data of 4 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. The user of this presentation is advised to revalidate the shared data from authorised public institutions.
5. We suggest, readers to use their best judgement and discretion

### **For more details / queries, send email to:**

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