COVID-19 MANAGEMENT AND MITIGATION IN UTTAR PRADESH

BEST PRACTICES: LABORATORY SUPPORT

1- DESCRIPTION OF THE INTERVENTION/PRACTICE:

- **EXPANSION OF LABORATORY NETWORK:** Laboratories were established in all medical colleges, institutes, district hospitals in an exponential manner. From one laboratory to > 125 laboratories in a period of few weeks was an unimaginable journey.

- **CONSTANT MONITORING BY STATE AUTHORIES**: Progress in sample generation and laboratory performance is being reviewed on weekly basis by hon. minister. Other than this all the higher state level officials are monitoring the progress on daily basis. Immediate solution to problems faced by labs is provided.

- **PROVIDING INFRASTRUCTURE SUPPORT IN FORM OF EQUIPMENT, MANPOWER, CONSUMABLE and FINANCIAL SUPPORT:** To establish the new labs and to support the existing labs support in every possible form was made possible.

- **ADAPTING ALL POSSIBLE TESTING MODALITIES:** without any hitch all possible modalities for testing were appropriately used. This includes RT-PCR, CBNAAT, TruNat, antigen detection tests for patient diagnosis.

- **INCLUDING PRIVATE LABORATORY PARTNERS:** More than 25 NABL accredited private laboratories have been included in lab network.

- **MAKING POINT OF CARE TESTS HAPPEN AT ALL DISTRICT HOSPITAL**: Trunat and antigen detection assay were adapted to be used as point of care tests at every district and medical college hospital. Considering the urgency in establishing these labs state airlifted Truenat machines from Goa and ensured their early installation.

- **SHOWING PATH TO NATION BY STARTING POOLING OF SAMPLES FOR TESTING**: King George's Medical University, Lucknow, UP (KGMU) applied the pooling of samples for increasing the capacity and lowering the cost of testing. The move was appreciated and approved by Indian Council of Medical Research, New Delhi (ICMR). Today whole country is using the method to improve laboratory capacity without compromising with the quality.

- **PROVIDING QUALITY CONTROLLED TESTING**: all public and private laboratories are under quality control program, KGMU being the reference lab. The program is in accordance with ICMR's advisory.

- **USING BIOSAFE PRACTICES**: All the laboratories in the state are trained in biosafety practices at KGMU before starting testing. This is to ensure NO LABORATORY OUTBREAK!!

- **PROVIDING TRAINING AND RETRAINING:**All the labs undergo training at KGMU the nodal centre before starting the work. In case there are any issues later, they are encouraged for retraining.

2- IMPACT CREATED:

- **EXPANSION OF LABORATORY NETWORK AND CAPACITY**: State of UP started with one laboratory which was started on 3rd February 2020 with limited capacity (100 tests per day).

- Today state has more than 150 labs; 24 RT-PCR labs in public sector, 20 RT-PCR labs in private sector, 75 Trunat labs in district hospital (one in each district) and 25 trunat lab in each medical college. Several antigen testing labs have also started.

- The laboratory capacity for RT- PCR was 100 tests per day as on 23rd March 2020. An exponential jump in laboratory capacity has happened and today state has capacity of doing 25000 RT-PCR tests. In addition Trunat and antigen detection test is also a possibility.

- **POOLING OF SAMPLES:** State has tested and found that pooling of samples for RT-PCR can be a path breaker to increase the testing capacity. The method got ICMR's approval and today whole country is benefitted by this simple application. **This has helped reduce the testing cost by 1/3 and increased the laboratory testing capacity by three times**

- **MAINTAING QUALITY CONTROLLED AND BIOSAFE LABORATORY SERVICES**

3- ACHIEVEMENTS:

- Capacity to do more than 25000 RT-PCR tests per day
- Helped in better case management
- Helped in early case detection and keeping positivity low
- Building infrastructure to face any such calamity in future and provide better case management to patients of other infectious diseases in UP
- Tested more than 7.4 lac samples for CoVID -19 in the state so far