COVID-19 Outbreak Control and Prevention State Cell
Health & Family Welfare Department
Government of Kerala

GUIDELINES - Sentinel Surveillance in Coastal, Slum & Tribal Areas

NO: 31/F2/2020/Health- 14th July 2020

Department of Health and Family Welfare has set up a sentinel surveillance system with an objective to look for any evidence of community transmission in the state. The Department is taking every efforts to strengthen the sentinel surveillance system from time to time so as to help in providing early warning signals and epidemiological information about the next phase of the pandemic in the state.

Population in coastal areas, slums and tribal areas are usually impacted by structural issues and inequality in access to health care. Hence there is a need to set up a surveillance system focussing more on these geographical areas.

Objective: To detect any local transmission in marginalised population settings – Coastal, Tribal, Urban Slums

LSGs/ Slums/ Villages to be selected from each district

<table>
<thead>
<tr>
<th>District</th>
<th>Coastal Villages</th>
<th>Tribal Villages</th>
<th>Divisions of Slum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thrivananthapuram</td>
<td>10</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Kollam</td>
<td>5</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Pathanamthitta</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Alappuzha</td>
<td>10</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Kottayam</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Idukki</td>
<td>0</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Ernakulam</td>
<td>5</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>Thrissur</td>
<td>10</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Palakkad</td>
<td>0</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Kozhikode</td>
<td>10</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Malappuram</td>
<td>10</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Wayanad</td>
<td>0</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>Kannur</td>
<td>10</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Kasaragod</td>
<td>10</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>80</strong></td>
<td><strong>25</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>
Selection of Villages

LSGs/ Villages need to be randomly selected. Various simple random sampling methods like calculator method, lottery method, simple random generator applications etc may be used for this purpose. The DSO shall execute this process. List of coastal villages are available at https://www.keralacoast.org/fishing-villages.php. List of slums are available with NUHM. List of Tribal Villages are available with Tribal Development Officer at District.

Sampling with the Selected LSGs

From each selected LSGs, samples need to be collected as follows

<table>
<thead>
<tr>
<th>Per Village/Division (Coastal/ Slum)</th>
<th>100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tribal Village</td>
<td>40</td>
</tr>
</tbody>
</table>

1. Rapid Antigen Assay

Antigen test need to be set up in Primary Health Centre/ Private hospital/ General Practitioners/ Nursing homes/ Mobile Medical Units in the area catering predominantly to coastal area/tribal area/ slums.

The test needs to be conducted for first 100 people reaching the health facilities with influenza like Illness. People with history of acute respiratory infection within last 7 days coming to health facilities/ community can be included.

About Rapid Antigen Assay

1. Nasopharyngeal secretion is the biological sample to be taken for antigen-based testing. ONLY a nasopharyngeal swab should be taken for rapid antigen-based test using standard Q Ag-kit

2. Each test kit comes with an in built COVID antigen test device, viral extraction tube with viral lysis buffer and sterile swab for sample collection.

3. The swab should be immersed and squeezed in the viral extraction buffer, provided with the kit. This buffer inactivates the virus thereby reducing biosafety and biosecurity requirements. The test does not work
if the sample is collected in the usual Viral Transport Media (VTM), routinely used for collection of OP/NP swabs. The usual VTM or Modified VTM should not be used for sample collection.

4. Once the sample goes into the extraction buffer, it should be mixed properly and the buffer tube cap needs to be replaced with a nozzle provided with the kit and 2-3 drops of the sample with buffer are to be put into the well of the test strip.

5. The test can be interpreted as positive or negative after 15 minutes of putting the sample into the well by appearance of test and control lines, which can be read with a naked eye, requiring no specialized equipment. Maximum duration for interpreting a positive or negative test is 30 minutes.

6. The results should be interpreted by a Senior Lab Technician/ Microbiologist/ Medical Doctor.

7. The DSO shall constitute or utilise the sample collection teams already formed based on previous advisories issued related to testing. WISK (Walk in Sample Kiosks)/ Mobile Medical Collection units could be used for sample collection.

8. A testing facility (Clean space/ Clean Room) may be set up in places where samples are collected. The samples collected should be collected and tested within one hour and time should not be wasted in sending the samples to the laboratory far away.

9. The test strip should be discarded after interpreting according to the Biomedical waste management rules.

10. The test kit should be stored between 2º to 30º C.

Refer to ADVISORY FOR PERFORMING RAPID ANTIGEN DIAGNOSTIC ASSAY FOR COVID-19 NO: 31/F2/2020/Health- 1st July 2020 for techniques and details related to antigen test.

SRF attached as annexure 1 shall be used for antigen test.
INTERPRETATION OF RAPID ANTIGEN ASSAY TEST RESULTS

All positive samples are to be treated as confirmed cases and manged as per the existing guidelines. No need to reconfirm the positive results with any tests.

If the sample is negative in a symptomatic person who is a COVID suspect (travel/contact history/containment zone), RT-PCR bases tests should be performed on a fresh sample from the patient. All COVID suspects to complete their quarantine period even if the test result is negative.

RECORDING AND REPORTING of RAPID Antigen Test Assay

The DSO shall register with ICMR to obtain the login credentials for data entry through the email ID: ag-govthosp@icmr.gov.in. All test results (both positive and negative) are also to be entered in ICMR portal with the log in ID and password issued by ICMR for the purpose.

The DSO should also register in the Kerala government online portal (Healthmon) for real-time reporting. All results should be entered in the following link: https://healthmon.kerala.gov.in/rapidtest real time.

Daily Summary (12 noon-12 noon of previous day) of total tests should be entered at 12 noon every day at https://healthmon.kerala.gov.in/rapidtest under daily summary

Administration & Management

The Additional Director (PH), DHS, Govt. of Kerala, shall supervise the implementation of the special surveillance activity. The COVID District Surveillance Officers (COVID-DSOs) shall co-ordinate, implement and supervise the activity with the laboratories in their respective districts. The District Laboratory Technician (DLT) shall supervise, monitor and maintain stock and logistics at the district level.

Principal Secretary
Government of Kerala

RAPID ANTIGEN ASSAY IN COASTAL/ TRIBAL/SLUMS

SAMPLE ID NO: __________/SQ/ ______ / _____ (LSG name /SQ/DATE/SAMPLE NO.)

[ eg. Ponnani/SQ/ 03-07-2020/ 004 ]

<table>
<thead>
<tr>
<th>Name</th>
<th>LSG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age:</td>
<td>Gender: Male/ Female/ Other</td>
</tr>
<tr>
<td>Phone Number</td>
<td></td>
</tr>
<tr>
<td>District</td>
<td></td>
</tr>
<tr>
<td>Address</td>
<td></td>
</tr>
<tr>
<td>Occupation</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Symptoms:</th>
<th>Yes/No</th>
<th>Date of onset:</th>
<th>Yes/No</th>
<th>Previously diagnosed with COVID-19</th>
<th>Yes/No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Travel outside Kerala /country in last 14 days</td>
<td>Yes/No</td>
<td>If yes............</td>
<td>Physiological status</td>
<td>Pregnant / postnatal lactating</td>
<td></td>
</tr>
<tr>
<td>Contact with any COVID suspect/case</td>
<td>Yes/No</td>
<td>........................</td>
<td>Comorbidity</td>
<td>Yes/No</td>
<td>........................</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Standard Test Result:</th>
<th>Positive</th>
<th>Negative</th>
<th>Inconclusive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>