

COVID-19 Testing Strategy

Timely and accurate COVID-19 laboratory testing is an essential part of the surveillance and management of COVID-19 pandemic. This will also enable to prevent spread of the disease through rapid detection, isolation and treatment including detection of asymptomatic cases.

World Health Organization (WHO) currently recommends COVID-19 diagnosis by molecular tests, which detect the SARS-CoV-2 virus RNA. Bhutan currently has three molecular testing centers at RCDC (Thimphu), Eastern Regional Referral Hospital (Mongar) and Phuentsholing General Hospital (Phuentsholing).

In addition to the molecular test, Bhutan is also using rapid test kits for COVID-19 for screening high-risk individuals and communities. All positive rapid test results will be followed up by molecular test for confirmation.

Guidance for use of molecular test (RT-PCR)

1. All symptomatic individuals arriving from outside the country or those developing symptoms while in quarantine.
2. All primary contacts of the confirmed COVID-19 case/s (to be tested on day 2 and day 22 if RDT is positive).
3. All symptomatic individuals meeting the case definition from flu clinics and hospitals.
4. All confirmed cases for release from isolation wards as per the existing testing algorithm (require two consecutive negative PCR test results from samples taken 24 hrs apart)
5. All symptomatic health workers involved in clinical management of confirmed cases while they are under quarantine
6. All health workers involved in case management at the end of 14 days of quarantine
7. All symptomatic health workers involved in COVID-19 response teams
8. All symptomatic health workers performing routine work in health centers
9. All SARI samples collected from existing sentinel surveillance sites including PoE's
10. All ILI samples collected from existing sentinel surveillance including sentinel sites
11. Samples collected from acute respiratory infection or ILI outbreaks

Guidance for use of Rapid Antibody Test (RDT)

1. All asymptomatic individuals on completion of 21 days in quarantine
2. All medical staff involved in case management after 14 days before release

3. Asymptomatic high-risk individuals involved in COVID response teams who come in contact with travelers and primary contacts. Testing can be carried out once at monthly interval.
4. Asymptomatic individuals in high-risk community along the border. Test two individuals selected randomly per household, and 5-10 households (depending on number of households in a community) selected randomly per community per month.
5. Systematic random sampling of drivers involved in ferrying goods from India to detect community transmission in India. Test a fixed sample size of 50 samples using systematic random sampling technique. For example, if there are 100 trucks arriving in a border town, sample every 5th driver.

Testing by different groups

1. Testing of travelers under quarantine

- Test with PCR if symptoms develop
- Test with RDT at the end of quarantine before release

2. Testing of primary contacts under quarantine

- Test with PCR if symptoms develop
- Test with PCR at day 2 and if negative release all secondary contacts from home quarantine
- Test with RDT at the end of quarantine before release

3. Testing of suspects (from hospitals or flu clinics)

- Test with PCR
- If negative repeat after 24 hrs

4. Testing of health workers after managing confirmed cases

- Test with PCR if symptoms develop during 14 day quarantine
- If first sample negative, repeat after 24 hrs
- At the end of 14 days, test with PCR and RDT

5. Health workers working in flu clinic, routine healthcare, observation and holding areas

- Test with PCR if symptoms develop
- If first sample negative, repeat after 24 hrs
- Test with RDT every three weeks or end of duty/deployment at these areas

6. Desuups and other volunteers manning quarantine facilities

- Test with PCR if symptoms develop
- If first sample negative, repeat after 24 hrs
- Test with RDT every three weeks or end of duty/deployment at these areas

7. Testing of staff in PoEs

- Tested with PCR if symptoms develops
- If first sample negative, repeat after 24 hrs
- Test with RDT every three weeks or end of duty/deployment at these areas

8. Random samples of truck drivers

- Test with RDT on drivers selected randomly

9. Testing of high-risk communities along the border

- Test with RDT on randomly selected households and individuals of selected households on a monthly basis