

## Laboratory and Testing Operational Considerations

The following section provides key considerations in relation to laboratory testing services for COVID-19 testing. This is to ensure laboratory testing capacity and supply of consumables are used optimally to support objectives of the Plan.

### Key enablers and barriers to COVID-19 testing response

The National Public Health Service (NPHS) will continue to work with all providers to ensure continuous improvement in providing all testing services to meet the objectives of the Plan. This will include working with sample collection providers, RAT supply and community testing providers, pathology and laboratory providers, and lead agencies (Public Health Agency, Te Aka Whai Ora, Whaikaha, Pacific Health, Te Whatu Ora) to ensure that as the plan evolves, the services available are fit for purpose.

Important testing considerations include:

* Availability of a range of technologies and methodologies
* Laboratory testing capacity (NAAT)
* Supplies (PPE, RAT, and NAAT)
* Sustainability of collection and testing services
* Quality of testing
* Access and service delivery mode and models; and
* Fiscal environment.

### Access to testing

Testing (and in some cases masks) can be accessed via various providers:

* RATs (and masks) can be collected at collection sites and participating pharmacies
* CTCs can perform NAATs when indicated; and
* GPs perform RATs and NAATs to inform clinical management.

These services are all listed on [Healthpoint](https://www.healthpoint.co.nz/covid-19/).

### Laboratory capacity and throughput

Laboratory-based PCR testing capacity and capability are retained in all diagnostic COVID-19 testing laboratories to meet testing demands as needed.

Under our current settings, RATs are used more actively for symptomatic testing, reserving PCR for priority people and those at higher risk of severe illness from COVID-19 in high-risk settings (definitions for priority people and those at higher risk of severe illness from COVID-19are at the end of this document).

In the instance of a significant VOC, a range of testing considerations will need to be assessed (for example, detectability of technologies and methods in use for a new variant).

**Supply of testing consumables**

Supply of testing consumables for RAT, collection devices and PCR test consumables (extraction and amplification), kits and reagents, and plasticware can all experience global supply pressures.

NPHS continues to monitor supply chains across the New Zealand testing network for these consumables in partnership with service providers. If required, NPHS, in partnership and consultation with key partners, will instigate rational guidance for prioritised use and allocation of supplies (for example, PCR POCT[[1]](https://auc-word-edit.officeapps.live.com/we/wordeditorframe.aspx?new=1&ui=en%2DUS&rs=en%2DUS&wdenableroaming=1&mscc=1&hid=C79CB3A0-50FD-2000-3D3D-66FAF5EFED1A&wopisrc=https%3A%2F%2Fmohgovtnz.sharepoint.com%2Fsites%2FTestingSupplyFULLTEAM%2F_vti_bin%2Fwopi.ashx%2Ffiles%2F9a022f8cfd784c69889ad0f1ab808e65&wdorigin=DocLib&wdhostclicktime=1684291954370&jsapi=1&jsapiver=v1&newsession=1&corrid=f8008c64-2bed-4029-92b1-4f8664fea565&usid=f8008c64-2bed-4029-92b1-4f8664fea565&sftc=1&cac=1&mtf=1&sfp=1&wdredirectionreason=Unified_SingleFlush&rct=Normal&ctp=LeastProtected#_ftn1) test kits).

If there are collection/laboratory service constraints for NAATs and/or supply chain shortages for RAT kits, consideration should be given to suspending all screening (both laboratory NAATs and RATs). Low-priority testing may increase wait times for priority population groups testing.

### Laboratory and sample collection workforce

In partnership with providers, NPHS will continue to monitor workforce availability within these services.

### Logistics – sample distribution networks

Transport networks in Aotearoa New Zealand can experience pressures affecting testing services.

NPHS will continue to monitor transport logistics and sample movements between collection sites and laboratories, and between laboratories to ensure optimal TATs for results to support clinical and public health decisions and actions.

### Data collection requirements

All laboratory data information and collection requirements should be aligned with data privacy impact statements and Māori data sovereignty guidelines.

To understand the amount of testing being conducted for SARS-CoV-2 across Aotearoa and in what settings, it is crucial to understand the:

* demographic (who is being tested)
* if testing is based on symptomology and/or absence of symptoms
* geographic region or by facility (where testing is occurring) distribution of testing
* type of test being performed and if all results are reported
* age group
* sex/gender
* ethnicity
* rates of testing for Māori and other ethnic groups in different settings (community, primary care, secondary care)
* referrer type

***NOTE***: not all self-test RATs are being captured.

Central collation and reporting at the national level provides a denominator for calculating test positivity rates and informs an understanding of how equitably testing is being implemented and accessed nationally, regionally and at a locality level. This information also identifies key demographic groups or geographic regions where increased public health, and testing efforts may be required.

In addition, it is important to understand national and provider testing activity to assess capacity and throughput and monitor service risks. The following information from tests should continue to be assessed to support improvements in quality and service delivery:

* Age group
* Sex /gender
* Ethnicity
* Geographic region and referrer type
* Test type
* By laboratory or testing device
* Referrer or provider
* Tests performed by test type
* Turn-around times with KPIs

### Changes in local testing regimes

For interpreting laboratory information for surveillance programmes, it is essential for providers to notify of changing testing regimes where it might affect data interpretation and comparability and cumulative reporting (including targeted testing groups and test modality).

As guided by the [Surveillance Plan](https://www.tewhatuora.govt.nz/for-the-health-sector/covid-19-information-for-health-professionals/covid-19-surveillance-strategy), any screening testing approach is recommended to include data collection, reporting and evaluation.