



Public Pathology
AUSTRALIA



Submission: Inquiry into the Victorian Government's response to the COVID-19 Pandemic

Putting patients first



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Executive Summary

This submission focuses on issues associated with pathology testing which arose during the COVID-19 pandemic in Victoria.

Greater focus on public pathology services rather than a heavy reliance on the private pathology sector would have improved Victoria's response to the COVID-19 pandemic. Public pathology providers are a critical health service and infrastructure of the State Government, its public health services and its population. They can be compelled, directed and coordinated to provide services in a way that the private sector cannot.

There could have been faster engagement, capacity building and resourcing of the public pathology sector and coordination from the Department of Health and Human Services (DHHS) during the COVID-19 pandemic.

Addressing the following pathology related issues will enable a better response to a subsequent COVID-19 wave or other public health crisis in Victoria:

- faster capacity building and planning;
- formalising relationships between referral and other laboratories;
- improving management of testing volumes;
- improving tracking and reporting;
- more broadly utilising public pathology in non-hospital environments (hotels, aged care);
- adopting robust healthcare worker testing;
- resolving funding issues;
- supporting new modalities of healthcare;
- improving communication between DHHS and pathology providers.

Background

Public Pathology Australia is the national peak body for public pathology in Australia. Public Pathology Australia members are the government owned and operated pathology services in each State and Territory in Australia. They provide the vast majority of pathology services in Australia’s public hospitals, service a number of private hospitals, and operate community-based collection services for patients upon referral from GPs and Specialists.

Public Pathology Australia has 18 members located in each State and Territory. In Victoria, Public Pathology Australia’s members are: The Alfred Pathology Service, Austin Health Pathology, Eastern Health Pathology, Goulburn Valley Health Pathology, Melbourne Health Pathology, Monash Health Pathology, Northern Pathology Victoria, Peter Mac Pathology, Royal Children’s Hospital Laboratory Services and VCS Foundation.

Pathology services in Victoria are provided by a range of pathology providers. Public pathology providers largely operate in metropolitan Melbourne, with some outreach to regional areas. Goulburn Valley Health Pathology Service is the only standalone public pathology service operating in regional Victoria. Pathology services in other regional hospitals are outsourced to private pathology providers. A number of these private outsourced laboratories have closed in recent years, leaving hospital services without onsite services.¹

The public pathology sector is guided by the goal of equitable access to pathology for patients across Australia. Our perspective reflects the fact that our members are part of the public service - they operate for the benefit of the public and are accountable to the public and not to investors.

Public Pathology:

Provides comprehensive access for all patients



Provides high quality, integrated care



Provides expertise in complex medicine



Helps protect our communities



Undertakes research, education and training



Operates for the benefit of the public health system and its patients



¹ For example, in the last 18 months, outsourced private pathology laboratories have closed in numerous areas including Alexandra, Colac, Benalla, Seymour and Stawell

public hospitals. The lack of laboratories in these areas poses a risk to patients who require urgent testing.

Submission

Public Pathology Australia provides the following observations of the COVID-19 pandemic response and suggestions for further improving Victoria's response to current and future crisis efforts.

Greater focus on public pathology services rather than a heavy reliance on the private pathology sector would have improved Victoria's response to the COVID-19 pandemic. Public pathology providers are a critical healthcare service and infrastructure of the State Government, its public health services and its population. They can be compelled, directed and coordinated to provide services in a way that the private sector cannot.

There could have been faster engagement, capacity building and resourcing of the public pathology sector and coordination from the Department of Health and Human Services (DHHS) during the COVID-19 pandemic.

Public pathology response

The COVID-19 pandemic demonstrated that pathology is a critical healthcare service and infrastructure. Pathology testing for the SARS-CoV-2 virus is essential in the diagnosis and management of patients with COVID-19. Genomic analysis of SARS-CoV-2 also enables contact tracing to better understand and control community transmission of the virus.

Public pathology has displayed exemplary leadership and demonstrated how public health testing is part of its core business as it protects and supports the community during the COVID-19 pandemic.

The public pathology response has been innovative and agile - from establishing new assays and work processes, collecting and testing specimens from a multitude of locations, and establishing ways to engage and report results. Some of the endeavours undertaken in recent months across Australia include:

- Innovatively developing a new assay to detect SARS-CoV-2 at the start of the pandemic;
- Actively contributing to incident control centres and Government COVID committees;
- Rapidly developing methodologies and boosting laboratory testing capacity;
- Delivering or supporting extra COVID-19 collection options (domiciliary services, at hotels, airports, drive-through clinics, and mobile testing vans) and specialised collection centres such as those for immuno-compromised patients;
- Conducting confirmatory testing for other laboratories;
- Establishing and managing rapid COVID testing for critically ill patients and patients in regional areas where logistics impedes reporting timeframes;
- Assisting with the rollout of rapid testing for Aboriginal and Torres Strait Islander communities;
- Issuing secure SMS results direct to patients, establishing or expanding call centres;
- Supporting other COVID-19 respiratory clinics with swabs, nursing staff, couriers and testing of specimens;
- Genomic sequencing of the virus to enable cluster identification;
- Collaborating with industry in testing for critical infrastructure such as mining, fisheries, shipping, the defence force and police;
- Developing new reporting dashboards and processes; and
- Conducting research and validation of new testing devices.

Public pathology services in most jurisdictions across Australia undertook all or most of the listed endeavours above. However, such a comprehensive response to the pandemic was not undertaken by any one pathology provider in Victoria due to the many different types of pathology services involved in the response and the fact that Victoria relied heavily on the private sector to conduct COVID-19 laboratory tests, unlike other jurisdictions.

Public pathology has been responsive to the demands of the COVID-19 pandemic. Having COVID-19 testing laboratories within hospitals enabled fast turnaround times - reassuring members of the community, enabling hospitals to better manage patients and contact tracers to commence their work faster. More recently, public pathology staff have been working closely with Department of Health and Human Services (DHHS) on a range of issues including surge capacity planning and installation.

Public Pathology Australia provides the following examples of how public pathology services have tested for the virus that causes COVID-19 in Victoria.

In Melbourne, Monash Health Pathology performed the highest volume of SARS-CoV-2 tests of all public pathology providers, with over 150,000 tests reported from March 2020 to date. Monash Health Pathology was responsible for testing swabs collected at three COVID clinics which were co-located to health services and three drive through testing centres. Monash Pathology Service also played a vital role in supporting the testing response in South Gippsland.

The Alfred Pathology Service set up PCR testing for SARS-CoV-2 in the second half of March 2020. Numbers increased rapidly and peaked at over 1,000 samples per day in early May. In late June, another peak was reached with over 1,100 tests in 24 hours. This exceeded the available reagent and the service had to utilize pooling of multiple samples to provide services to patients. To date at the Alfred there have been about 100,000 patient samples collected, of which more than 90,000 swabs were tested in-house. Median turnaround times have been exemplary at between 7 and 10 hours since August 2020 - the best performance of any of the Victorian pathology services.

The pathology service at Northern Health, Northern Pathology Victoria, was in the middle of the major outbreaks in Victoria. This service quickly installed a number of platforms from April 2020 to test for SARS-CoV-2, increasing testing capacity to about 700 results per day with median turnaround time (TAT) to report of 8-10 hours. At the height of the second wave Northern Pathology Victoria was processing up to 1,500 samples per day. As in other public pathology services, Northern Pathology Victoria used rapid testing technology for critically ill and emergency patients, while higher capacity testing was used for community testing including patients attending fever clinics and nursing home residents.

Eastern Health has a unique profile, with a very large community catchment and several peripheral sites of varying complexity. At the outset of the COVID pandemic, Eastern Health Pathology was initially reliant on central referral laboratories for COVID testing – with the attendant delays of referring specimens. However, by working closely with the clinicians, operational leads and the Eastern Health executive, Eastern Health Pathology rapidly procured and implemented several platforms for COVID-19 testing. Eastern Health is now entirely self-sufficient for COVID swab testing, with sufficient reserve capacity to support a major surge in testing activity of up to 300% above the November 2020 average. Multiple platforms also provide business continuity in the event of technical or supplier failure.

Eastern Health identified a key role for near-patient GeneXpert testing. As well as testing the most acutely unwell patients, the GeneXpert platform proved to be a game-changer for a health service with a wide community catchment and peripheral hospitals. GeneXpert tests dramatically reduce isolation and personal, protective equipment (PPE) requirements for patients in peripheral hospitals, allowed rapid patient flow through the Emergency Department and to home wards for specialist care, reduced dependency on dedicated “suspected COVID” wards, and reduced inter-hospital transfers (thereby accelerating care, improving patient experience and reducing demand on Ambulance Victoria and other transport services). Eastern Health fully meet the turnaround time key performance indicator (100% within 24hrs) with a median turnaround time to report of 7 hours. The agility of Eastern Health Pathology has allowed a highly tailored response to the COVID pandemic that meet the local clinical and operational needs of Eastern Health clinicians, sites and patients.

Local public pathology laboratories enabled fast responses to outbreaks. The Goulburn Valley Health laboratory tested 650 or 15% of COVID-19 swabs onsite during the Shepparton outbreak and managed 5,145 swabs to public referral laboratories in Melbourne. 95% of tests were reported within 24 hours. Since March 2020, the Shepparton laboratory has managed 37,000 COVID swabs for testing, with 4,500 being performed on-site. The small team at the local laboratory is dedicated to supporting its community and has been able to do so with forward planning and securing access to rapid GeneXpert COVID testing kits. This highlights the importance of having a public pathology laboratory with appropriate technology onsite in a regional hospital.

Issues

The COVID-19 pandemic is unprecedented. Due to the nature of pathology provision in Victoria, greater efforts from DHHS was required to coordinate pathology providers during the pandemic. However, public pathology providers, unlike private pathology providers, can be compelled or directed by State Government to provide services in a particular manner and this enables greater control and responsiveness. Greater focus on the public pathology response with faster engagement, capacity building, resourcing and coordination from DHHS would have improved Victoria’s response to the COVID-19 pandemic.

Some of the issues which have arisen during the pandemic relating to pathology testing include the need:

- for faster capacity building and planning;
- to formalise relationships between referral and other laboratories;
- to improve management of testing volumes;
- to improve tracking and reporting;
- to utilise public pathology more broadly in non-hospital environments (hotels, aged care);
- for robust healthcare worker testing;
- to resolve funding issues;
- to support new modalities of healthcare; and
- to improve communication between DHHS and pathology providers.

Capacity planning and building

Earlier, enhanced, coordinated capacity building efforts for public pathology laboratories within the State would have facilitated Victoria’s pandemic response.

Reference laboratories such as the Victorian Infectious Diseases Reference Laboratory (VIDRL) are critical in establishing initial in-house assays to quickly commence testing during a pandemic. However as testing volumes rise, relying predominantly on one laboratory leads to significant reporting delays.

Full-diagnostic public laboratories commonly have high capacity molecular platforms to serve the daily need of their communities. They have demonstrated their importance in the current pandemic and in the 2009 influenza pandemic. There needs to be faster capacity building for these non-reference laboratories so they can test at the volume predicted. They also need to be signalled to assist at an early stage in the pandemic.

As the pandemic progressed and Victoria entered its second wave, coordination improved. Capacity audits were conducted and planning undertaken to boost laboratory testing capacity across diversified laboratory testing platforms. While there would have been significant benefit had this process started earlier, Victoria is to be commended for undertaking these steps. Now that DHHS has an understanding of testing volume capacity, it will be in a better position to signal public pathology laboratories into action at an appropriate time should a third wave of COVID-19 or subsequent public health crisis occur.

While public pathology services routinely monitor and prepare for pandemics through internal horizon scanning processes and resource management, the State Government can support these preparatory efforts. This could include state coordinated collective bargaining with the major international assay manufacturers for detection kits and sampling devices, funding for early acquisition and verification of appropriate testing assays and platforms, funding support for additional staff, and dissemination of experience of comparative commercial assay performances from the state reference laboratory to frontline laboratories.

During the pandemic, research has been released before formal peer review for publication. However, some pathology laboratories have not been willing to share their findings about assay performance with other laboratories ahead of formal publication. This results in duplication of validation studies and impedes faster uptake of fit for purpose laboratory testing technologies. It is also imperative that Government liaises with pathology providers before mass purchasing SARS-CoV-2 test kits and consumables from suppliers for state or national stockpiles to ensure they are fit for purpose. Listing on the Therapeutic Goods Administration (TGA) Register does not mean that test kits are appropriate for use as they need to suit local epidemiological conditions and be first validated by pathology laboratories.

Referral laboratory links

Formalising the relationships between VIDRL and other laboratories will assist with future responses to COVID-19 and subsequent pandemics. During the Victorian COVID-19 outbreaks, referral processes and charging arrangements between referral laboratories and other laboratories were not clear. Addressing these issues and formalising the link between laboratories and also with DHHS Public Health will ensure that appropriate communication and reporting processes will be able to be quickly activated in the event of a subsequent COVID-19 wave or other public health crisis.

Management of testing volumes

There was confusion about which laboratories specimens should be sent to during the pandemic. It was particularly unclear which laboratories swabs were sent to when multiple pathology providers were involved in responding to a localised outbreak or testing blitz. This led to collection specimen handling issues and difficulty locating results for members of the community. It is necessary to improve referral processes for better management of testing volume and reporting.

As a rule, outbreak testing should be done by the public laboratory in the geographic area of the outbreak and overflow directed to the nearest public pathology laboratory rather than directed to a range of pathology providers. Where laboratories are teamed up for the purpose of overflow management, joint oversight between laboratories would assist in managing specimens. Electronic specimen tracking should be implemented rather than a paper referral from the originating laboratory or tracking sheets provided at a clinic site to the testing laboratory. This would reduce the need for time consuming duplicate specimen data entry from each laboratory involved.

There must be more timely guidance from DHHS to pathology services on managing testing overflows and notification of when laboratories are reaching capacity.

Tracking and reporting

Pathology services in Victoria have different laboratory information systems. There is a need to expedite test tracking and reporting mechanisms across Victoria. Pathology Queensland quickly established an identification and reporting dashboard for Hospital and Health Services (Local Health Networks) across Queensland. This enabled close to real time visualisation of who, when and where tests were being conducted and fast reporting back to Public Health and Hospital and Health Services. Reporting requires resourcing for the development of reports and for the provision of advice as to interpretation and actions. While some hospital sites developed this locally, a coordinated statewide approach in Victoria would be beneficial.

Public pathology providers are adept at establishing new tests and managing testing. However, bottlenecks arise outside pathology services which should be addressed. When onboarding or making changes to existing analysers to accommodate new tests, interfaces must be established between the instrumentation and the laboratory information system. There is also a need to ensure new codes are established, orders can be received, and pathology reports issued to electronic medical records, My Health Record and Public Health notified. National experience has demonstrated the dedicated IT teams located within pathology services improve timeliness of laboratory information system changes. Boosting local IT teams and optimally, a state-wide public pathology laboratory information system, would improve responsiveness.

Pathology Queensland, NSW Health Pathology, SA Pathology and PathWest (Western Australia) established new processes to communicate and report directly to patients during COVID-19. While Victorian pathology services also issued SMS results to patients, in other states public pathology services established call centres to provide test results to patients and these were well utilised. The advice issued enabled patients to take appropriate steps such as to continue or cease isolation. In Victoria patients had to follow up results with the pathology providers who analysed the tests. This was difficult as people did not know which pathology provider to contact. Having timely results available through the DHHS COVID hotline would have provided faster and easier assistance to patients in addition to the SMS results service.

Streamlining the notification process has been helpful during the pandemic. Earlier on during the pandemic all positive results had to be phoned through manually by laboratory staff to DHHS. That process was highly inefficient. The change to an electronic notification process was a very welcome initiative.

Test Tracker is currently being interfaced in some laboratories in Victoria. This will enable tracing specimens from collection to reporting. One of the clear benefits of the Test Tracker system is the time saved and reduction in data entry errors. The Test Tracker system negates the need for busy specimen collection and reception staff to enter in patient and specimen details into laboratory information systems. This is important when laboratories are under pressure to maintain 24-hour turnaround times of reporting COVID results. The Test Tracker system should be expedited across Victoria. It should capture time and date of specimen collection, receipt in the laboratory and reporting of results. It should be enhanced to track send away tests, that is, those tests which are received by a laboratory and referred to another laboratory. This is important in managing testing overflows and specialised tests that must be handled by a referral laboratory in the future.

Non-hospital collections – contracted services

At the start of the first and second waves of the pandemic, there was confusion over whether public or private pathology providers should be utilised in non-hospital settings such as aged care. This was compounded by the Commonwealth Government awarding a selective tender to a national private pathology provider for COVID-19 testing in aged care settings. This generated confusion over whether the local public pathology provider should be used or not. There was a financial incentive not to use the local public provider who may have turnaround test results faster. Directing tests to public pathology providers in the first instance, particularly for government operated aged care facilities, would have enabled greater control of the response.

Hospital employee infections

Hospital workers are at high risk of infection when caring for patients with COVID-19. There were around 3,573 healthcare workers infected with COVID-19 in Victoria, with 72.9% infections known to be acquired in the workplace.² Significant work has been undertaken to segregate the hospital workforce in the hope of preventing entire departments being furloughed. Physical distancing and contact tracing are at the extreme ends of a preventative strategy. The missing middle section is asymptomatic / pre-symptomatic surveillance. The impediments - cost, discomfort and time are surmountable. Cost is relative and can be seen as a saving if surveillance is implemented at the right point in time for the right period of time. Discomfort can be minimised by using saliva (or a buccal swab). Time can be minimised by adequate resource and optimisation of process.

To achieve this, significant planning, assay development, resource implementation and a thorough understanding of the epidemiology of the disease is required. Point prevalence surveillance projects, symptomatic and asymptomatic seroconversion projects and assay development for less invasive sample collection have or are in the process of being undertaken locally. The results of these initiatives should be assessed in light of a potential third wave. There must be a plan for surveillance testing of hospital workers and other high-risk groups.

Funding

Under the National Partnership on COVID-19 Response (NPA)³, States and Territories equally share COVID related costs with the Commonwealth for activities defined under the National Health Reform Agreement (NHRA).

Activity under the Medicare Benefits Schedule (MBS) sits outside the NHRA and are a Commonwealth expense. However, in the case of SARS-CoV-2 (COVID) tests, the MBS fee reflects the NPA, being: \$50 for public pathology providers and \$100 for private pathology providers. The shortfall for COVID tests by public pathology providers claimed under the MBS must be paid for by the State Government.

In addition, public pathology providers are excluded from charging the MBS \$110 for each COVID test of aged care workers in Victoria and interstate freight workers unlike private pathology providers.

The differential MBS COVID fees have unintended consequences. For instance, public laboratories who perform COVID tests for private hospitals can only charge \$50 per test, whereas private pathology companies charge \$100 per test, even if they are done for public hospitals.

² <https://www.dhhs.vic.gov.au/victorian-healthcare-worker-covid-19-data#:~:text=A%20total%20of%203573%20healthcare,infection%20could%20not%20be%20determined> accessed 29 November 2020.

³ <https://www.coag.gov.au/sites/default/files/communique/covid19-mpa.pdf>

In addition to lower COVID fees, there are differences in MBS fees for pathology collection services, with private pathology providers receiving at least 2-3 times the amount that public pathology providers can claim from the MBS for every episode. These lower MBS Patient Episode Initiation Fees and Bulk Billing Incentives impact on the ability of public pathology providers to provide Medicare funded pathology services, particularly in areas of need. It furthers health inequity, reduces patient choice, and impacts on continuity of care. This funding disparity does not occur in any other medical speciality.

To ensure there is appropriate funding for MBS COVID tests, it is important that the Victorian Government insists on funding parity for all pathology services under Medicare from the Commonwealth Government. This should be raised and discussed at National Cabinet.

There needs to be clarity about COVID testing reimbursement for non-MBS COVID tests. It is imperative that the expenses incurred by public pathology providers for COVID testing are claimed through the NPA by States/Territories and that funding received for COVID testing is directly provided to public pathology providers rather than retained at other levels of government. This will ensure that public pathology services will have adequate budget to continue testing.

Supporting telehealth and hospital in the home

During the pandemic, hospitals increased out of hospital and telehealth appointments. This should be supported into the future where appropriate – especially in rural and regional areas. Pathology also needs to adapt to support new modalities of healthcare – both in the way pathology tests are requested and in the way they are provided.

There should be a national or at the very least a centralised, statewide pathology electronic referral system. This would comprise a portal and repository where pathology requests are housed and accessed by patient's public pathology provider of choice.

Point of care testing (PoCT4) performed close to the patient at the time of encounter can support services such as hospital in the home. While PoCT is not a replacement of the full suite of laboratory tests and not all PoCT devices are fit for purpose, with proper governance and administration, they can improve access to pathology services. Public pathology services have expertise in implementing and governing large PoCT networks and should be resourced to do so where clinically appropriate.

Communication and coordination

There must be continued efforts to improve communication from DHHS to the frontline laboratories to facilitate the pandemic response. Specifically, improved communication prior to and during a testing blitz will allow better planning and logistics during times of significantly increased testing activities. Improved coordination between various laboratories can also streamline the testing approach by better allocating resources to testing demands.

The DHHS recommended testing processes can be improved by widening the consultative process to include those working in frontline laboratories with intimate knowledge of the national quality framework before implementation. This would ensure adherence to accreditation requirements and minimisation of risk.

4 National Pathology Accreditation Advisory Council (NPAAC) Guidelines for Point of Care Testing (First Edition), 2015, p4.

Conclusion

Public pathology has been responsive to the demands of the COVID-19 pandemic.

Greater focus on public pathology services rather than a heavy reliance on the private pathology sector would have improved Victoria's response to the COVID-19 pandemic. Public pathology providers are a critical healthcare service and infrastructure of the State Government, its public health services and its population. They can be compelled, directed and coordinated to provide services in a way that the private sector cannot.

There could have been faster engagement, capacity building and resourcing of the public pathology sector and coordination from the Department of Health and Human Services (DHHS) during the COVID-19 pandemic.

Public Pathology Australia trusts this public submission has been useful in informing current and future public health emergency responses from the Victorian Government. Resolving issues identified in this submission will be important given the higher incidence of respiratory infection during autumn and winter and a potential subsequent wave of COVID-19.

