

Executive Insights

Impact of COVID-19 on the Australian MTP sector

Globally, more than 6 million cases and 375,000 deaths have been reported since the beginning of the outbreak in November 2019 to the end of May.¹ Australia was amongst the first wave of countries to record COVID-19 cases, with the first case in late January. After a sharp rise in new COVID-19 cases during the month of March, the curve was subsequently 'flattened', and by the end of May the number of cases had stabilised at around 7,200, with 103 people losing their lives to COVID-19. Australia's success to date in managing the first wave of infections is in large part due to the swift and decisive actions to implement social distancing measures, targeted regulations, intergovernmental cooperation and a strong focus on testing.

Together with MTPConnect, part of the Industry Growth Centres Initiative for Australia's medical technology, biotechnology and pharmaceutical (MTP) sector, L.E.K. Consulting has explored the impacts of the COVID-19 pandemic on the Australian MTP sector over the period from February to May. The findings were published in the [MTPConnect COVID-19 Impact Report: The Impact of COVID-19 on the Australian Medical Technology, Biotechnology & Pharmaceutical Sector](#). This document summarises the key insights from our report.

Assessment of COVID-19 impact on MTP sector

Key organisations impacted	Key issues encountered	Types of responses
Those focused on early-stage R&D and clinical trials	Clinical trials halted	Immersion in the COVID-19 response
Smaller organisations	R&D efforts slowed due to restrictions and lack of funding	Pivoting to support the COVID-19 response
Organisations whose products / services are not aligned to COVID-19 response efforts	Supply chain challenges in terms of available capacity and cost of air and sea freight	Protecting organisation viability and sustainability
	Changes in end-user demand for products / services	Continuing operations while observing distancing requirements and constraints

The COVID-19 crisis has had a strongly negative impact on the MTP sector, as it has on many other parts of the Australian economy. Sector executives and senior leaders rated the overall impact on their businesses as 2.5 on a scale of 1 to 7, where a rating of 1 is a highly negative impact and 7 is highly positive.

Commercial activity across the sector, as measured by the market capitalisation of ASX-listed MTP companies, has fallen \$11 billion AUD (or 5%), from \$211 billion in February to \$200 billion in May. While this decline is lower than the corresponding 24% decline of the S&P / ASX All Ordinaries index over the same period, it is primarily driven by the steady market capitalisations of CSL and ResMed, two companies that have both played significant roles in responding to COVID-19. Excluding these two companies from the analysis reveals the rest of the Australian

Impact of COVID-19 on the Australian MTP sector was written by **Stephanie Newey**, Partner, **Neale Jones**, Partner and **Manoj Sridhar**, Manager in collaboration with MTPConnect. Stephanie and Neale are based in Sydney. Manoj is based in Melbourne.

For more information, please contact strategy@lek.com.



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sector has experienced nearly a 16% decline in market capitalisation, akin to the S&P / ASX index over the same period.

The impact of the COVID-19 crisis has been particularly severe on three types of organisations within the sector:

1. Organisations focused on earlier stage R&D and clinical trials in the MTP value chain have been impacted more than those focused on manufacturing and sales and distribution
2. Smaller organisations rather than larger companies
3. Organisations whose products / services are not aligned to the COVID-19 response efforts

Value chain focus

Lockdown and social distancing measures across Australia have limited the ability of workers to work on-site and physically continue R&D activities in laboratories.² In contrast, manufacturing operations, particularly in the pharma / biotech and medtech subsectors, were widely deemed essential services and continued to operate, albeit with stricter social distancing and hygiene guidelines.

Organisation size

Larger companies had more significant cash reserves to withstand the impact of a revenue slowdown as compared with smaller companies and have benefited from diversified operations, for example, continued demand and revenue for products in some parts of their business while facing reduced demand in other areas. Smaller companies, particularly startups and early-stage biotech / medtech / digital health companies, were further disadvantaged if they were pre-revenue, as these organisations have not been eligible for JobKeeper payments from the federal government.

Alignment to COVID-19 efforts

A differentiating factor of the MTP sector as compared with others in the Australia economy is that many organisations have played a direct role in responding to the COVID-19 crisis, including developing ventilators, vaccines and therapeutics against SARS-CoV-2 and producing and sourcing vital medical supplies and protective equipment for healthcare workers. Consequently, the impact on organisations has varied depending on whether their products and capabilities have been aligned to COVID-19 crisis needs.

Issues encountered

We surveyed over 80 senior executives in the sector to identify the nature of the issues and challenges experienced as a result of COVID-19. Four impacts were consistently raised as the most significant: reduction in clinical trial activity, reduction in R&D activity, supply chain disruptions and change in demand for end-user products.

Impact on clinical trials

Many pharma, biotech and medtech companies have had to put their clinical trials on hold, as it was not practical to continue

treating and monitoring patients during the pandemic. Concerns regarding patient safety, hospitals that stopped clinical trial monitoring activities and healthcare infrastructure being diverted for COVID-19 purposes were the common drivers of clinical trials being put on hold. In addition, pharma and biotech companies found recruitment of patients for new clinical trials challenging, as patients were not willing to participate in trials during this pandemic period.

Impact on new and ongoing R&D

Biotech companies have found it difficult to source funding for new and ongoing R&D as a result of the pandemic. These delays can disrupt and delay years of planning as well as reduce commercial attractiveness after years of investment, as the sector has long development lead times of 10-15 years. Restrictions on working in laboratories due to the lockdown measures and social distancing requirements have resulted in a slowdown of R&D activity. The notable exception here is that R&D efforts directed towards the development of vaccines, diagnostic kits and therapeutics for SARS-CoV-2 have seen increased funding and levels of activity. Early-stage biotech firms, universities and medical research institutes (MRIs) have been disproportionately impacted by the slowdown.

“The nation could face ‘generational loss’ of biotechs and medtechs that are not eligible for the JobKeeper subsidy since it does not support pre-revenue innovation companies.”

— Chris Nave, Founding Partner and Managing Director, Brandon Capital Partners³

This has significant implications for future cash reserves to complete clinical trials once they resume and for the retention of jobs in the sector.

Impact on supply chains

The COVID-19 pandemic has resulted in a surge in demand for some medicines and medical devices such as respiratory products⁴, ventilators and PPE. This extra demand has caused significant stress on the supply chains of pharma, biotech and medtech companies. These companies have found it increasingly challenging to source input materials or finished products from overseas given the dramatic decline in sea and air freight services internationally, combined with border closures.

Pharma and medtech companies have incurred the additional cost of transporting freight via limited air, land and sea freight services to meet the urgent demand for products. Air freight costs have increased between three- and tenfold during the pandemic compared with the typical pre-COVID-19 costs and have not been passed on to buyers.

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Impact on demand for end-user products

Digital health and medtech companies involved in the COVID-19 response or whose products are perceived essential, including telehealth, have experienced increased activity levels and more positive financial outcomes than those that are not. Digital health companies surveyed by MTPConnect have experienced a positive impact on their businesses because social distancing regulations have led to a rapid and robust pivot towards virtual healthcare delivery.⁵

“The forced adoption of digital technologies has been a positive development, especially around e-prescriptions and telehealth. Rapid introduction of reimbursement was key; however, this will need to be maintained and expanded to digital medicine and digital therapeutic technologies to fully capitalise on the full potential of our digital health sector.”

— Bronwyn Le Grice, CEO and Managing Director, ANDHealth

Medtech companies whose products are involved in elective procedures and surgeries experienced a sharp decline in demand, leading to decreased earnings in the quarter. Cochlear hearing devices experienced an 80% decline in revenue across developed markets, which is partially attributed to Australia’s halt of elective surgeries from 25 March to 27 April.⁶

Responses

The pandemic escalation period in Australia from March to April was characterised by unprecedented uncertainty and the need for businesses to respond and adapt in a rapid manner in order to protect staff and customers, provide support to the COVID-19 response, and in some cases, simply ‘survive’.

Organisation responses have typically fallen into one of four categories, linked to the extent to which the organisation was impacted and whether opportunities have existed to pivot and support the COVID-19 response:

- **Immersion in the COVID-19 response:** Those organisations experiencing a significant surge in demand for products and / or services have needed to align and adapt to support the national response to the COVID-19 pandemic
- **Pivoting to support COVID-19:** Organisations with some assets and capabilities to support the COVID-19 response have rapidly pivoted a proportion of organisation activities and resources to address needs arising from COVID-19
- **Protecting organisation viability and sustainability:** Those organisations facing significant negative economic impacts of COVID-19 have focused on preserving financial sustainability and viability
- **Continuing operations while observing distancing requirements and constraints:** Those organisations that have had a modest financial impact have needed to adapt operations to meet social distancing requirements

Segment	Description	Example organisations (products / services)	Illustrative actions taken by organisations
Immersion in the COVID-19 response	A number of pharma / biotech / medtech and digital health companies have seen a surge in demand for their usual products and / or services during the COVID-19 period because these products / services have been essential for consumers, healthcare organisations and / or governments to address the health impacts of COVID-19	ResMed, notus industry consortium (ventilators), Med-Con (personal protective equipment such as face masks), telehealth companies (MedAdvisor, Coviu), government agencies such as the Therapeutic Goods Administration (TGA) and Department of Health	Ramped up production and distribution of products / services seeing increased demand either on their own or in collaboration Secured alternative supply chain solutions, often involving higher-than-normal cost of freight / logistics Increased workforce capability to serve the increased demand
Pivoting to support the COVID-19 response	Organisations that have deployed a subset of their capabilities to support demand for products / services	Alcohol producers developing hand sanitiser, Stryker, CSL, DetMold (masks), Clerts Linen (gowns), CSIRO, Planet Innovation, the TGA	Redeployed staff, facilities and resources to develop and / or voluntarily provided services that aid the national response Reprioritised R&D efforts to address challenges presented by COVID-19 Implemented rapidly with a more responsive pace of working
Protecting organisation viability and sustainability	Organisations that have experienced a significant drop in demand for their products / services due to the COVID-19 pandemic and have been unable to pivot their activities sufficiently to mitigate this decline in demand	Cochlear devices, small biotechs such as Immuron, universities, MRIs	Used cost-saving tactics and sought aid to best manage the decline in demand to ensure ongoing survival
Continuing operations while observing social distancing requirements and constraints	MTP sector organisations that have been minimally impacted by the COVID-19 pandemic because the pandemic did not severely impact demand for their products / services	Relatively few organisations fall into this category, e.g. some service providers such as intellectual property advisers and market access advisers	Minimal impact on overall business, with impacts typically limited to particular products or business lines (e.g. R&D and sales functions) Largely maintained the course with organisation activities while adjusting to the COVID-19 restrictions

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Most notable was the collaboration between industry and government to ensure the supply of vital medical equipment under the Health Industry Coordination Group chaired by Glenys Beauchamp PSM. Industry stepped in to fulfil manufacturing and procurement needs; this collaboration was unprecedented and led to the securement and production of vital medical equipment within Australia. The details of this collaborative effort are presented in the Supplementary Report.⁷

The table above highlights these four categories of responses.

The road to recovery and emerging lessons from the pandemic

The road to recovery for the MTP sector is likely to be a difficult one with many uncertainties. It is currently unclear whether there will be subsequent waves of heightened community transmission of COVID-19 requiring further shutdowns. It is unclear how long Australians will need to socially distance and how cautious they will be in returning to previous behaviours, including receiving medical treatment. There is uncertainty around ongoing international border closures and the movement of goods, and it is also unclear how the broader Australian economy will be affected and how reduced consumer wealth and funding sources will impact the demand for MTP products and services. The MTP sector will need to continue to be agile.

There are five key factors across the MTP value chain that will affect the sector over the next six to 12 months, as summarised below.

Factors	Implications	Path to recovery
 Healthcare system burden	The healthcare system is likely to be challenged by a surge in the volume of patient consultations and severity of interventions required as patients have delayed diagnoses and treatments during the pandemic.	Public and private sector organisations and government need to continue to work together to encourage patients to seek regular medical care.
 Potential for increased unemployment	There may be an increase in job cuts if JobKeeper support is scaled down before a sufficiently strong recovery in market conditions, particularly at early-stage MTP companies and research institutions.	Consideration of a range of policy options, such as matching capital through mechanisms such as revenue contingent, convertible loans to support pre-revenue and early stage biotech and medtech companies to deliver the services and products for the healthcare of Australians.
 Continued high shipping costs and supply chain disruptions	While international travel is restricted, companies will face compounding financial pressures resulting from lower revenues and lower margins due to higher freight costs.	There is a need to continue growing air freight capacity and improve its cost effectiveness, building on the good work of government departments such as Department of Industry, Science, Energy and Resources and Austrade during the pandemic. There is also a need to continue to ensure supply chains are diversified to avoid disruptions from nations impacted by the pandemic.
 Slowing of the innovation pipeline	Shortfalls in research funding and lack of alternative revenues (e.g. international student fees, philanthropic donations) could require research institutions to rationalise their research efforts.	A collaborative approach to safely expedite international students returning / coming to Australia once travel bans are lifted is key. A review of the research funding model in light of Australia's innovation agenda would also be valuable.
 Opportunity to strengthen Australia's clinical trials reputation	There is a short-term opportunity to leverage Australia's position as one of the lesser-affected Organisation for Economic Co-operation and Development (OECD) nations to attract clinical trials and associated R&D activity to Australia.	Strategies increasing patient recruitment and restarting trials that were put on hold during the pandemic, including risk mitigation plans to cope with further waves of infection which may arise over the next six months.

Emerging lessons learned

Although the impacts of the COVID-19 pandemic on the MTP sector are yet to be fully realised, our engagements with senior MTP sector stakeholders have highlighted a number of key lessons learned from the journey thus far in dealing with the pandemic.

Lessons learned to be applied to future practices	Description
Enhance government, industry and research sector collaboration	Significant work has been undertaken to align efforts across states and territories in Australia, especially with R&D and procurement for COVID-19 preparedness. This collaboration between government and industry and across all levels of government has been regarded as a quantum leap forward and should continue post-pandemic.
Accelerate adoption and realise the potential of digital innovation and capabilities	Remote access to data for clinical trial teams, the introduction of remote / at-home monitoring of patients, the introduction of a COVID-19 tracking app and the ability to e-sign documents are examples of broader digital health capabilities within Australia that have been successfully adopted during COVID-19. Maintaining the changes in behaviour while also accelerating the rate of adoption of digital health innovation will be critical to drive productivity gains and improve the quality of healthcare delivery in Australia.
Diversify supply chains and develop local manufacturing	Ensuring a diverse supply chain and sources with built-in redundancies, sufficient local manufacturing capabilities and / or state and national stockpiles would better prepare Australia for future pandemics.
Develop a structured approach to pandemic monitoring and detection	Consistent and sustainable funding for research, development and manufacturing capabilities for infectious diseases and associated medical diagnostics would better prepare Australia for future pandemics. ⁸

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Conclusion

The COVID-19 pandemic and the restrictions implemented to control its spread have caused significant negative impacts to the MTP sector across the February-May period. Many sector companies and organisations have seen severe declines in revenue and margins. Supply chain integrity for many companies has been compromised and, with a necessary emphasis on preserving cash until better times, jobs have been lost. Up to 90% of clinical trials have been put on hold and R&D activities have been slowed down or stopped. Complications in access to capital for early-stage companies could lead to a generational loss of startups from the Australian ecosystem.

The MTP sector is innovative and resilient, characteristics which came to the fore in the unique collaboration between industry and government to ensure effective supply of the critical healthcare technologies, goods and services necessary to support the public health response to COVID-19. Many organisations have pivoted their own activities to contribute to the pandemic response, often absorbing higher costs and consequently lower margins. This has

now placed Australia among the leading countries globally in terms of recovery from the pandemic.

After a number of years of strong growth and sustained contributions to the Australian economy, COVID-19 is testing the MTP sector like never before. The uncertain path over the next six to 12 months, with the possibility of future waves of infection, will have flow-on impacts for the MTP sector and the broader Australian economy. Our research has shown that the MTP sector has played a key role in responding to COVID-19 and is of vital importance to the recovery efforts and to building Australian sovereign capabilities for future pandemic resilience.

As the impact of COVID-19 continues to evolve, MTPConnect and L.E.K. will continue to monitor the health and responses of the MTP sector. A follow-up report will be published in Q3 2020 that will articulate a more comprehensive view of the lessons learned from the sector's collective experiences of the COVID-19 pandemic, outline strategies and initiatives to position it for future growth, and enhance Australia's future pandemic preparedness.

Endnotes

- ¹ Hien Lau and Veria Khosrawipour, "Internationally lost COVID-19 cases", Journal of Microbiology, Immunology and Infection, 14 March 2020.
- ² Frank Larkins, "Impact of the pandemic on Australia's research workforce", Rapid Research Information Forum, 6 May 2020.
- ³ Carrie LaFrenz, "Biotechs face 'generational loss' without JobKeeper", Australian Financial Review, 25 May 2020.
- ⁴ Senior stakeholder interview with international pharmaceutical company.
- ⁵ Damien Angus, Maureen Connolly and Mariella Salita, "The shift to virtual care in response to COVID-19", PwC, 9 April 2020.
- ⁶ Maarten Ijzerman and Jon Emery, "Is delayed cancer diagnosis a consequence of COVID-19?", Pursuit, University of Melbourne, 30 April 2020.
- ⁷ MTPConnect and the Medical Technology Association of Australia, "Collaborating in the Public Interest: How Australia's Medical Technology Sector joined with Government to fight COVID-19", June 2020.
- ⁸ Sophie McNeill, Jeanavive McGregor and Lauren Day, "How Australia's 'panic and neglect' funding cycle has left us vulnerable to pandemics like coronavirus", ABC News, 8 June 2020.

About the Authors



Stephanie Newey

Stephanie Newey is a partner in L.E.K. Consulting's Sydney office and a Director of the firm's [Asia-Pacific Life Sciences Centre of Excellence](#). She has more than 17 years of experience in strategy and consulting, with expertise in the biopharmaceuticals and life sciences, healthcare services, and building materials industries. Stephanie's insights into biopharmaceuticals and healthcare are supported by three years of experience working at a major global pharmaceutical company.



Neale Jones

Neale is a Partner of L.E.K. based in the Sydney office. He began his consulting career in London in 2001 and brings extensive experience in strategy consulting in the Australia, Asia and European markets. As a leader in L.E.K.'s Healthcare practice, Neale works closely with clients from across the continuum of care on many of their most pressing strategic priorities including corporate and business unit strategy development, international expansion, identifying and evaluating acquisition opportunities, and value activation strategies.



Manoj Sridhar

Manoj is a Manager in L.E.K.'s Melbourne office. He has over 10 years of experience in the Australian MTP sector and has worked on a number of strategy projects across all parts of the sector. He holds a Ph.D. in Physics from Vanderbilt University and a M.B.A. from Melbourne Business School.

About MTPConnect

MTPConnect is a not-for-profit organisation aiming to accelerate the rate of growth of the medical technologies, biotechnologies and pharmaceuticals (MTP) sector to increase commercialisation and collaboration and establish Australia as an Asia-Pacific hub for MTP companies. Formed in December 2015 as part of the federal government's Industry Growth Centres Initiative, MTPConnect is an independent and trusted voice calling for change to support the sector.

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