

Issues Brief

6 Clinical Trials

BUILDING AUSTRALIA'S CLINICAL TRIAL EXPERTISE

Australia is home to extraordinary talent. The sort of talent that can create breakthroughs in medicine and lead to better health outcomes for all Australians.

That is why the medicines industry is investing in clinical trials. Investments that are creating highly valued jobs and placing Australia at the cutting edge of research into some of the major health challenges of our time.





OBJECTIVES BRIEF 6: CLINICAL TRIALS

Medicines Australia strongly encourages the Australian Government to:



Work with all political parties to establish a clinical trials parliamentary friendship group.

Improve the patient recruitment process for clinical trials.



Harmonise the regulatory framework for clinical trials to deliver shorter approval timelines.

Address the high and variable costs of clinical trials in Australia.



Promote Australia's capabilities in clinical trials through a comprehensive marketing strategy that complements the long-term strategic plan for the Medical Technologies and Pharmaceuticals sectors currently under development.

Key fact:

Every year, around **700 new clinical trials** are commenced in Australia by the medicines industry.

OVERVIEW

Clinical trials deliver patients early and free access to new medicines that can literally change their lives.

A clinical trial is a scientific study, or an organised test of medicines and new treatment options involving patient and non-patient human volunteers. Clinical trials confirm whether medicines are safe and effective to introduce as new treatments for a particular disease or condition.

Clinical trials may also be used to determine whether an existing medicine can be safely and effectively used for other diseases and/or conditions. While medicines are extensively tested in laboratories, these tests can only predict how a medicine will act.

To thoroughly understand how a new medicine will work in humans, it needs to be tested on people affected by the disease the medicine is designed to treat.

CLINICAL TRIALS ARE CRITICALLY IMPORTANT TO AUSTRALIA

These human tests (clinical trials) help doctors to assess if the new medicine is more effective or safer than old medicines or treatments, and to determine the correct dosage of the medicine.

Clinical trials are critically important to Australia because:

- Results from clinical trials can lead to the development of medicines that can assist Australians to treat and manage their condition.
- Patients can gain early access to new medicines not otherwise available at no cost. In some instances, a clinical trial is the treatment of last resort for some patients.
- Participation in clinical trials can improve the lives of thousands more people suffering from various medical conditions when the safety and efficacy of a particular treatment proves favourable.
- Finding new treatments can help reduce the burden of some of our most challenging diseases such as cancer, cardiovascular diseases and central nervous system diseases.
- They generate valuable new insights for science and research, through development of new knowledge that can be beneficial when treating future patients.
- They create employment in our research organisations, universities and hospitals.
- Clinical trials are used to inform decisions by the Therapeutic Goods Administration (TGA) and the Pharmaceutical Benefits Advisory Committee (PBAC) to register and subsidise a medicine.

PHASES OF CLINICAL TRIALS

PHASE I

Phase I clinical trials involve the first administration of the medicine to humans, usually to small numbers of healthy volunteers. Phase I clinical trials determine the safety of the medicine, how it works and how well it is tolerated. These clinical trials also identify preferred routes of administration (eg. tablet, liquid or injection) and help determine the appropriate doses for later studies. Phase I clinical trials are usually undertaken in centres appropriately equipped for the specialised monitoring and the high degree of surveillance needed.

PHASE II

Phase II clinical trials are normally the first trials of the medicine in patients suffering from the condition for which the medicine is intended. The principal aim of these clinical trials is to determine effectiveness and safety. These clinical trials are undertaken in a small number of closely supervised patients and conducted by researchers regarded as specialists in the particular disease or condition and its treatment.

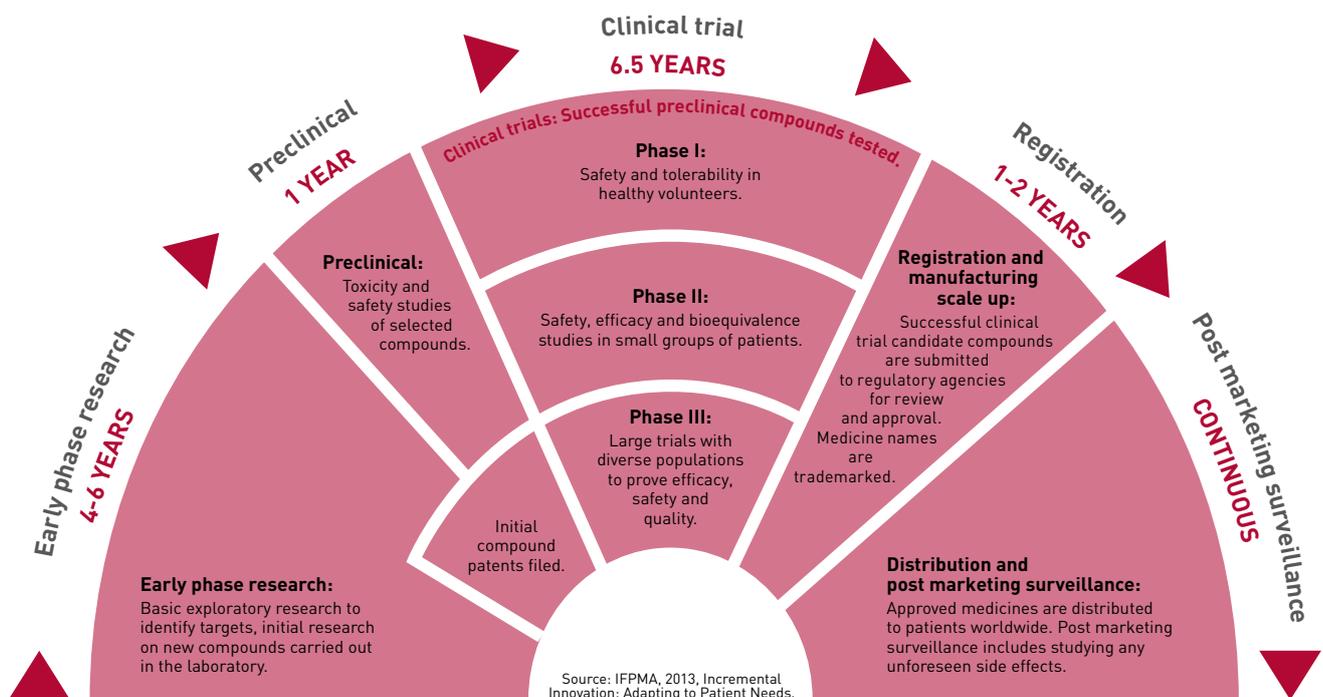
PHASE III

Phase III clinical trials involve greater numbers of patients and are undertaken for the purpose of determining whether the medicine confers clinical benefit in the disease/s for which effectiveness was demonstrated in Phase II clinical trials. They also determine the nature and likelihood of any side effects. Phase III clinical trials are undertaken if the Phase II clinical trials indicate the medicine has potential benefit that outweighs the hazards.

PHASE IV

Phase IV clinical trials are also undertaken to further investigate the use of the medicine in the normal clinical setting of the disease, as this may differ quite markedly from the conditions under which the other clinical trials were conducted. This includes post marketing surveillance studies.

1. Source: Access to Unapproved Therapeutic Goods, Clinical Trials in Australia, Australian Government <https://www.tga.gov.au/publication/access-unapproved-therapeutic-goods-clinical-trials-australia>



INCREMENTAL INNOVATION: ADAPTING TO PATIENT NEEDS

SPONSORS PLAY AN IMPORTANT ROLE IN CLINICAL TRIALS

Key fact:

Every year, around 700 new clinical trials are commenced in Australia by the medicines industry.

Clinical trials are generally initiated by 'sponsors', although they can also be initiated by medical specialists and doctors (investigator-initiated clinical trials) with involvement from the sponsor to provide the medicine under investigation. Sponsors come from a wide range of organisations.

Sponsors include:

- Medicines companies, either solely or jointly with other research institutions, such as universities and hospitals;
- Private research institutes such as the Garvan Institute and Walter and Eliza Hall Institute of Medical Research under a grant, commonly through the Government's National Health & Medical Research Council or from public donations; and
- Publicly-funded research organisations, such as universities and teaching hospitals.

In Australia each clinical trial is overseen by a doctor. The clinical trial team includes doctors and nurses as well as pharmacists and other health care professionals. The clinical trial team is responsible for checking the health status of the participants at the beginning of the trial, monitoring them during the trial, and staying in touch with them for a period of time after the clinical trial has been completed.

The AbbVie logo is displayed in a dark blue, lowercase, sans-serif font.

CASE STUDY OF CLINICAL TRIAL BENEFITS

- AbbVie recognises the strength and capability of local clinical researchers and includes Australia in the top 10 countries for participation in global clinical trials of its industry-leading biopharmaceutical pipeline.
- In 2015 alone, AbbVie invested more than \$11.3 million in support of clinical and medical research in Australia.
- AbbVie is currently testing 17 medicines in 85 clinical trials in Australia, with more than 1000 patients enrolled across 230+ trial sites.

CHALLENGE: REGULATORY ARRANGEMENTS FOR CLINICAL TRIALS ARE OVERLY COMPLEX

Slow start up times are regularly identified as a key reason why Australia is losing its competitive edge against other countries. On average, research governance reviews add 49 days to approval times.

Australia's clinical trials environment is complex and can vary considerably across our states and territories. Slow start up times are regularly identified by clinical trial sponsors as one of the key reasons why Australia is losing its competitive edge against other countries.

Despite ongoing reforms, the time it takes to start a clinical trial in Australia is not getting shorter. Industry surveys continue to cite the lengthening research governance approval timelines as one of the main contributors.² Previous studies have shown that, on average, research governance reviews add 49 calendar days to approval times.

Other countries are taking the lead on supporting clinical trials. For example in July 2016 the new European regulation on clinical trials will commence. These regulations introduce a single application for a clinical trial, via a portal to the European Medicines Agency (EMA), which will be evaluated in consultation by all member states involved in the trial. Timelines for evaluation and approval are to be harmonised across Europe.

Other comparable countries to Australia, such as Canada, have efficient and responsive regulatory systems for clinical trials. These include many mechanisms to expedite clinical trial start-up times. Canada's Federal Health Department, Health Canada, targets a 30-day review of clinical trial applications. In 2013, Health Canada achieved 99% of their target for all applications received.³

There will always be complexities in Australia because of the shared responsibility for healthcare between the Australian Government and state and territory governments. As shown overseas, driving greater efficiency in the clinical trials environment can be achieved. With increasingly fierce competition for attracting clinical trial investment, now more than ever we need to keep pace with international standards and best practice models for clinical trial approvals.

2. Australian Pharmaceutical Industry Trends 2015 Review White Paper

3. https://canadatalkspharma.com/wp-content/uploads/2014/11/Global-Affairs-Canada_ClinicalTrialsBrochure_WEB.pdf



SOLUTION: REGULATORY HARMONISATION AND MUTUAL RECOGNITION

The innovative medicines industry supports the Australian Government taking a national leadership role to reorganise the existing regulation of clinical trials within 12 months.

Medicines Australia welcomes the Australian Government's commitment to make it easier to conduct trials in different states and territories through better regulatory harmonisation and regulatory mutual recognition.⁴ Short approval timelines that are respected need to be implemented through the new national co-ordination unit as soon and as efficiently as possible if Australia is to remain competitive and promote investment in clinical trials.

The Australia Government's \$7 million **Encourage More Clinical Trials in Australia** policy proposes a central point of contact for clinical trial sites to:

- Navigate and negotiate with multiple sites to improve recruitment and start-up timelines for large-scale clinical trials in Australia, benefiting the maximum number of Australian patients;
- Establish and negotiate trial budgets and contracts with sponsors as well as facilitating governance and ethics approvals across multiple sites;
- Provide ongoing support both administratively and professionally throughout the study; and
- Ensure that clinical trials are promoted to relevant patient groups to maximise patient recruitment.

The medicines industry supports the Australian Government taking a national leadership role to reorganise the existing regulation of clinical trials within 12 months. To achieve this ambitious reform, Medicines Australia proposes that the Australian Government consider introducing legislation to establish the national central point of contact to drive better quality standards and regulation across jurisdictions. Consideration could be given to a cost-shared model with the states and territories.

Ensuring efficient quality assurance of clinical trials is critical to improving health outcomes and the overall productivity of the economy. States that maintain they should have regulatory control over certain clinical trial activities could retain control but harmonise legislation at the state level to support greater national consistency. This would be particularly timely given that state governments have already agreed to work in good faith with the Australian Government to improve the clinical trials environment.⁵

Medicines Australia welcomes the unanimous bipartisan support for clinical trial participation expressed during the federal election.⁶ Given this, it would be prudent for the Parliament to agree to reform the current regulatory environment for clinical trials within the next 12 months. While there are many options to improve the current clinical trials environment and many more challenges that are outside the scope of this brief, this option is one example of what appears logical to progress.

4. <https://www.liberal.org.au/coalitions-policy-encourage-more-clinical-trials-australia>

5. <http://www.coaghealthcouncil.gov.au/Announcements/ArtMID/527/ArticleID/92/CHC-Communique-8-April-2016>

6. Coalition, Australian Labor Party, Australian Greens responses to Medicines Australia Federal Election questionnaire, June 2016, unpublished.

CHALLENGE: IMPROVE THE PATIENT RECRUITMENT PROCESS FOR CLINICAL TRIALS

One of the barriers to initiating more clinical trials in Australia lies in the difficulty in recruiting suitable patients to enroll in clinical trials.

The barriers to patient recruitment include:

- A lack of patient awareness of clinical trials;
- Inappropriate or ineffective communication methods to raise awareness;
- Identifying the right patients;
- The length and complexity of application processes; and
- A lack of harmonisation of patient records and regulatory frameworks.

The medicines industry is also tightly regulated in what information it can share on clinical trials. These barriers lead to delays in commencing trials, early termination, or small sample sizes that make it difficult to draw meaningful conclusions and are a disincentive to initiating trials in Australia.



SOLUTION: A NATIONAL COMMUNICATIONS STRATEGY TO INCREASE PATIENT PARTICIPATION

Medicines Australia acknowledges that the Australian Government will develop a national communications strategy focusing on the benefits of clinical trials to increase participant identification and eligibility. It is proposed to build on the operation of the existing digital portal – [AustralianClinicalTrials.gov.au](https://www.australianclinicaltrials.gov.au).

Medicines Australia welcomes the Australian Government's approach and agrees that electronic health records, and more coordinated education for patients and clinicians and streamlined regulatory processes have the potential to help address some of the current challenges.

CHALLENGE: MAKING AUSTRALIA A PREFERRED COUNTRY FOR CLINICAL TRIALS

Australia is currently the third most expensive country in the world in which to conduct clinical trials.

Australia is recognised globally as having some of the best scientists and research infrastructure in the world, which gives us an important strategic advantage. But we are facing fierce international competition for clinical trial investment, and over a 10-year period overall levels of clinical trial activity have been in steady decline.

Australia is currently the third most expensive country in the world in which to conduct clinical trials.⁷ Even compared to socio-economically comparable countries, it is more expensive to conduct clinical trials in Australia. This is particularly surprising given that there are few, if any, meaningful differences between Australia and countries like France, Germany, the United Kingdom and South Korea when it comes to the quality of their healthcare and medical research systems.

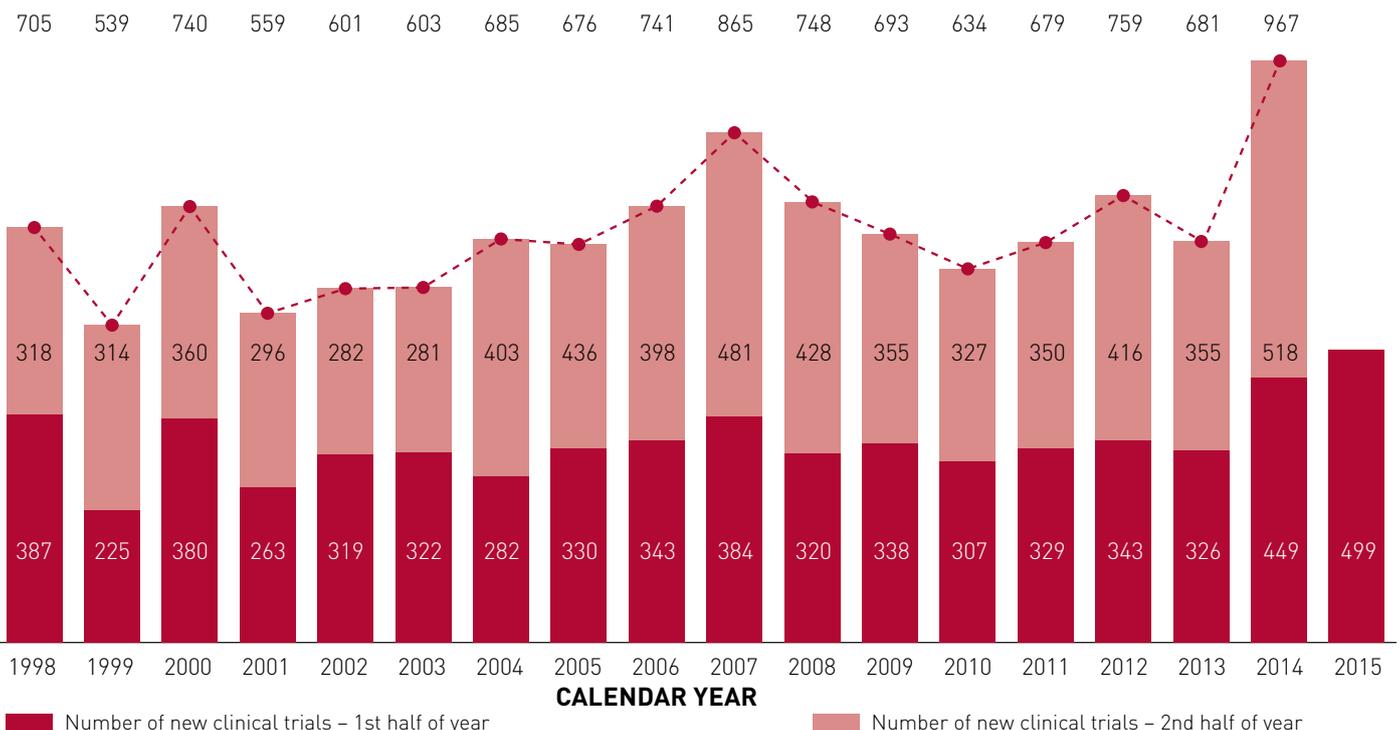
The situation is exacerbated by the significant variability in how much individual research sites charge for performing virtually identical tasks. A recent comparison of start-up fees across 22 research sites for an actual commercially sponsored study illustrates the problem. In this example, individual start-up fees ranged from \$4,900 to \$41,418 for the same study, with an average cost of \$19,887 and a total start-up cost of \$437,499. These costs were incurred before a single patient was enrolled in the study.

7. Pharmaceuticals Industry Council, 2013, Benchmarking the Cost of Conducting Clinical Trials in Australia.

OVERALL CLINICAL RESEARCH ACTIVITY HAS NOT INCREASED OVER THE LAST DECADE

Figures from the Therapeutic Goods Administration (see below) show that although the number of clinical trials undertaken in Australia stagnated for many years, we are now seeing signs of growth.

Due to a change in TGA processes, there is a break in the data from June 2015.



Source: Therapeutic Goods Administration half yearly performance reports, clinical trials (medicines).

SOLUTION: MTPCONNECT 10-YEAR STRATEGIC PLAN

Through the Medical Technologies and Pharmaceuticals Growth Centre (MTPConnect), the Australian Government is currently developing a 10-year strategic plan.⁸

Medicines Australia notes that the vision for MTPConnect is to maximise the sector's competitive advantage and establish Australia as an Asia Pacific hub for medical technology and pharmaceutical companies.

SOLUTION: LONG-TERM MARKETING STRATEGY AND ONGOING ADVOCACY

As well as the MTPConnect 10-year plan, a comprehensive marketing strategy could position Australia as a preferred country to both local and international businesses by targeting areas of strength to attract international investment.

This marketing strategy will be based on policies that support further clinical trial investment, through a simple, consistent approvals framework, and incentives to commercialise.

It could include supporting private and public research and service organisations to develop and promote the necessary capabilities and capacity to collaborate with industry.⁸ It could also promote the top research domain areas.

8. MTPConnect, accessed 30 June 2016 at: <http://www.mtpconnect.org.au>

NEW CLINICAL TRIALS: TOP 5 RESEARCH DOMAINS⁹

Research domain	Number of new trials
Blood disorders including cancers and cardiovascular disorders	181
Lung and respiratory conditions	58
Skin disorders including cancers	56
Mental health and CNS disorders excluding cancer	53
Breast cancer	50

Medicines Australia notes that the Australian Government, through Austrade, produces a useful and informative **Clinical Trials Capability Report**.⁹ Austrade, in consultation with other portfolios involved in the administration and support of clinical trials, could be tasked to review this report and build on it (given that some of the information is soon to become out of date).

Future publications promoting Australia as an attractive location for clinical trials, including those produced by Austrade, should be used as part of a broader strategy to target potential investors and form part of a long-term marketing strategy. A long-term marketing plan that includes identification of how best to market Australia to potential investors, could complement the Medical Technologies and Pharmaceuticals plan currently under development by MTPConnect. It could help to improve Australia's brand and promote our world-class capabilities for clinical trials in key markets through our existing trade teams.

9. Clinical Trials Capability Report 2015, Austrade.com.au

SOLUTION: RAISING AWARENESS ABOUT THE BENEFITS OF CLINICAL TRIALS

Coalition will

"take a national leadership role in improving the environment for clinical trials"

Greens support

"that more Australians have access to clinical trials and the treatments they need"

Labor will

"make Australia's national clinical trial framework a reality"

Source: Responses to MA election questionnaire, 2016

As well as a long-term marketing strategy being developed to promote Australia as a preferred destination for clinical trials investment, there is a need to raise greater awareness about the benefits of clinical trials in the Australian community.

Business leaders, Government officials, Parliamentarians and other health peak bodies can all contribute to the effective future promotion of clinical trials.

Given the high-degree of bipartisan support for clinical trials by political parties, Parliamentarians could establish a new parliamentary friendship group. The goal of the group would be to raise greater awareness amongst Parliamentarians and the wider community about the benefits of clinical trials.

Establishment of the Parliamentary Clinical Trials Friendship Group would provide a forum to explore opportunities and drive change in the clinical trial environment. It would also help build a mutual understanding of the economic opportunities clinical trials create and the health benefits it helps to deliver for Australians.

The group could be supported by Medicines Australia, Research Australia, Ausbiotech and the Australian Clinical Trials Alliance, with peak bodies offering to help educate members of the group through research, briefings and other information.



Issues Brief 6 Clinical Trials

EXECUTIVE SUMMARY

A COMMON GOAL

To see a thriving local clinical trial sector which brings value to the Australian economy and advances public health outcomes.

KEY CHALLENGES

- Regulatory arrangements for clinical trials are overly complex and are a shared responsibility between the Australian Government and state and territory governments. Slow research governance approval and start-up times are regularly identified by clinical trial sponsors as one of the key reasons why Australia is losing its competitive edge against other countries.
- Improve the patient recruitment process for clinical trials – difficulties include identifying and recruiting appropriate patients in appropriate numbers, lengthy and complex application processes, and a lack of harmonisation of patient records and regulatory frameworks.
- Making Australia a preferred destination for clinical trial activity – Australia is currently the third most expensive country in the world in which to conduct clinical trials, and over a 10-year period, overall levels of clinical trial activity have been in steady decline.

KEY SOLUTIONS

- Within 12 months, achieve regulatory harmonisation and mutual recognition in different Australian states and territories, including legislation to establish the national central point of contact to drive better quality standards and regulation across jurisdictions.
- Medicines Australia welcomes the Australian Government's plans to develop a national communications strategy around the benefits of clinical trials to increase participation; introduce electronic health records; and support a more coordinated education approach for patients and clinicians.
- Medicines Australia welcomes the MTPConnect 10-year strategic plan to maximise the sector's competitive advantage and establish Australia as an Asia Pacific hub for medical technology and pharmaceutical companies.
- Develop a long-term marketing and advocacy strategy targeting potential investors, which is based on policies that support further clinical trial investment, including a simple consistent approvals framework, and incentives to commercialise.
- Establish a new parliamentary research friendship group, with the goal of raising greater awareness amongst Parliamentarians and the wider community about the benefits of clinical trials.