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Introduction

- To define the current activities and capability of the clinical trials sector on the Gold Coast
- To define the potential growth of the sector over the next ten years
- To identify supply chain opportunities that would unlock or catalyse the sector
- To enable the project process to be able to be used in other regions

Project Objectives

- Regional Development Australia Gold Coast (RDAGC)
- Department of State Development, Manufacturing, Infrastructure and Planning (DSDMIP)
- City of Gold Coast (CoGC)

Project

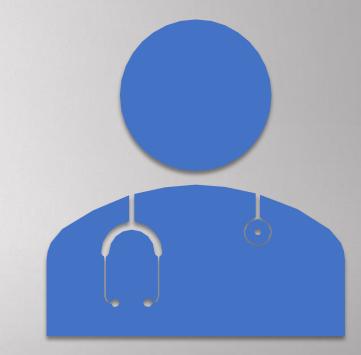
Partners

• Gold Coast Health and Knowledge Precinct (GCHKP)

What are clinical trials?

"Research investigations in which people volunteer to test new treatments, interventions or tests as a means to prevent, detect, treat or manage various diseases or medical conditions."

(National Health and Medical Research Council – a Federal Government Initiative)



Global Drivers

- Companies investing in innovation and research & development
- World population increase
- Ageing populations
- Increasing expectations of greater health outcomes
- Personalised healthcare
- Digital healthcare
- Tighter regulatory regime

Project Methodology

Project Stakeholder Engagement

Economic Analysis

Supply Chain Development

Growth of clinical trials in Australia

Projected to double in expenditure and employment in a ten-year period

	2015	2025 Scenarios	
		Low Case	High Case
Expenditure (\$Billion)	1.095	2.080	2.530
Employment	6,900	12,900	15,600

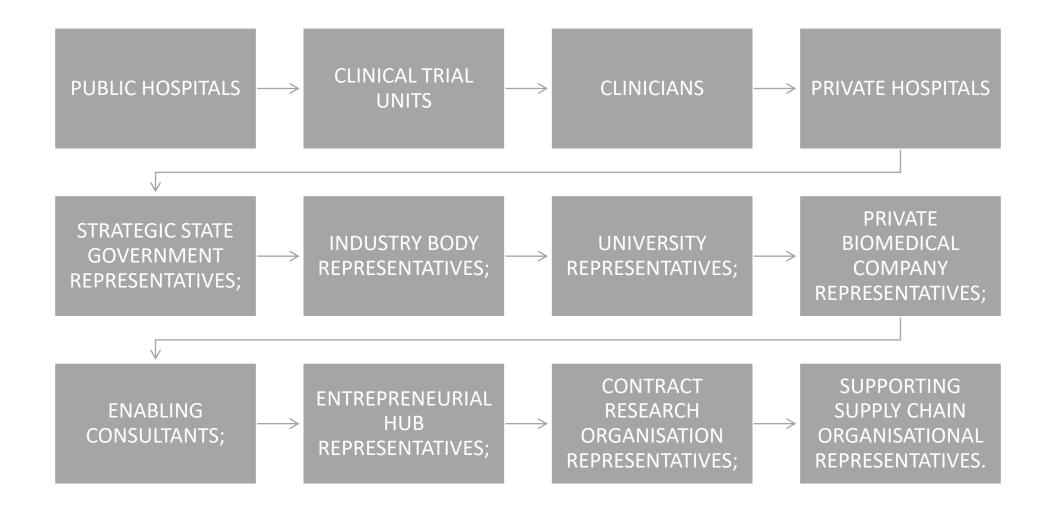
Source: MTP Connect. Clinical Trials in Australia: The economic profile and competitive advantages of the sector. 2017

Stakeholder Engagement

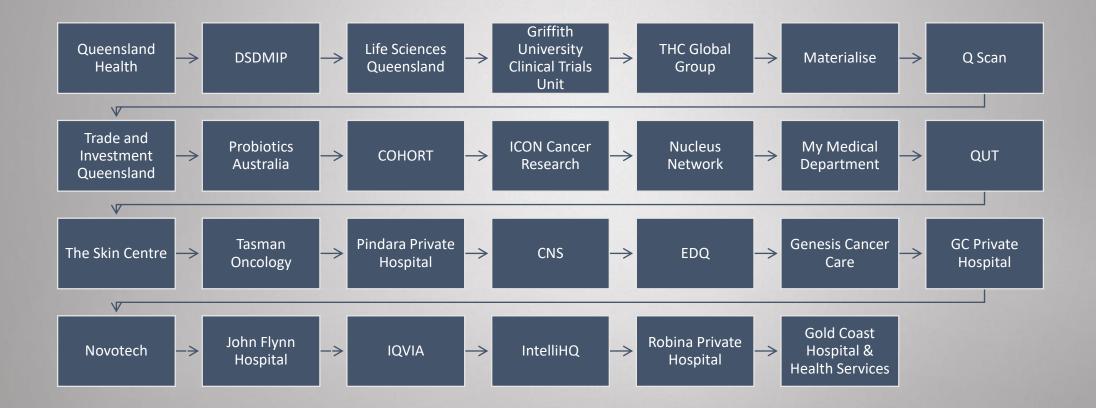
Project Engagement Process



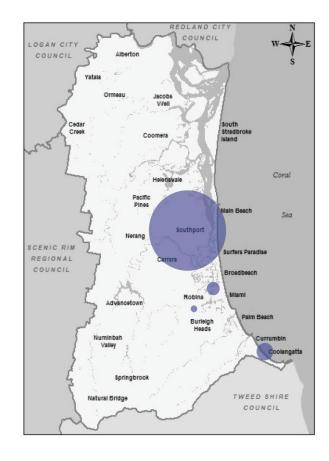
Project Stakeholders



Companies engaged



Where are clinical trials occurring on the Gold Coast

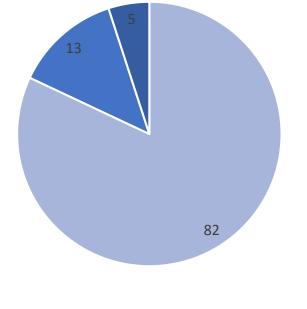


Note: 88% of the trials are being delivered in Southport either at the Gold Coast Health and Knowledge Precinct or within a short distance of the old hospital in Nerang Street, Southport.

Market sentiment

Of the stakeholders interviewed who have a direct involvement in clinical trial delivery 82% believed that they would see significant growth, 13% would see steady growth and 5% said they would remain the same.

Projected Growth



Strengths (as noted by stakeholders)

- Gold Coast Health and Knowledge Precinct
- World class research institutes
- Size of patient population
- Ageing patient population
- Ethnically diverse population
- Experienced and motivated clinicians
- Participant recruitment
- Hospital infrastructure (public and private)
- Easy to get around the city
- Oncology research
- Gold Coast lifestyle

Weaknesses

(as noted by stakeholders)

- Emerging reputation for clinical trials
- Collaboration between institutions
- Future need for experienced and skilled clinical trials staff
- Gap in regulatory knowledge support
- Relatively small but growing population
- No accredited material testing laboratory
- Minimal ancillary clinical trials businesses

Opportunities

(as noted by stakeholders)

- Market Gold Coast clinical trials sector capability
- Dedicated Phase I facility
- Gold Coast clinical trials governance structure and strategic planning
- Medical tourism
- Phase I GP Clinic
- More dedicated spaces for trials
- Export of knowledge and services to Asia Pacific region
- Talent attraction
- Telehealth/virtual health
- Wearables and apps
- Artificial intelligence

Constraints

(as noted by stakeholders)

- Lack of specialised laboratories
- High speed internet
- Rail links between Brisbane and airport

Engagement Outcomes Overview



Economic Analysis

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Objectives

The objectives for the economic assessment included:

- Map the current Gold Coast clinical trials capabilities and capacity including the present size and structure of the industry and growth potential;
- Identify the economic relationships and linkages;
- Assess and identify the supply chain and associated gaps in the region to support the projected growth of the clinical trials industry;
- Develop the existing suppliers' capabilities, identifying new supply chain opportunities, emerging skills and workforce requirements and gaps, including skills, facilities and investment attraction opportunities, and
- Provide a benchmarking tool for other Queensland regions to utilise.



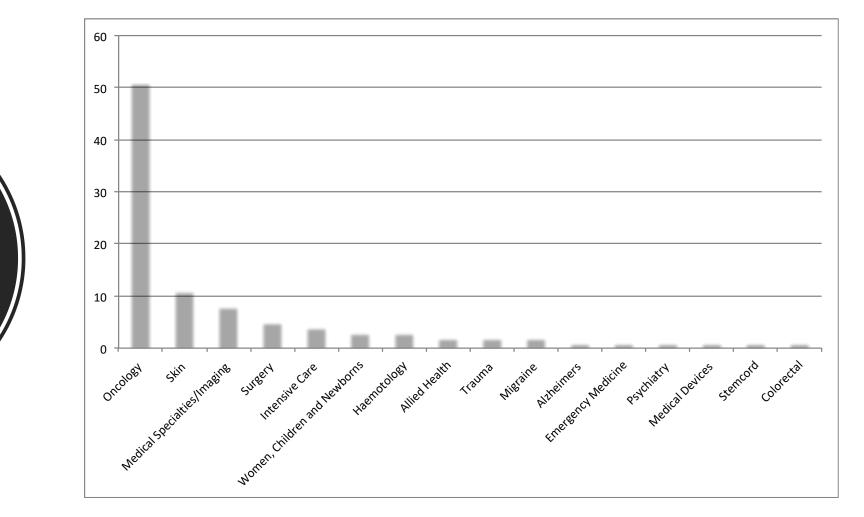
Economic Analysis Methodology

The consideration of the appropriate impact assessment tools were driven by:

- The focus of the project on Gold Coast City, Local Government Area;
- The requirement that the study should be able to be replicated in other Queensland regions, presumably the larger regions which have large hospitals and universities with the appropriate skills, courses and facilities; and
- The model needed to have reasonable specificity in terms of providing industry and employment classifications to the level that could identify where most of those involved in clinical trials were working.

Ee

id. economic impact model



Survey Results – Medical Field of Trials

Note: Analysis results from available stakeholder data

Survey Results: Trials generate economic activity

Measure	2019	2029	Average annual Rate of growth
Number of trials	126	258	7%
Value add Economic Contribution			
Direct Gold Coast (\$M)	8.7	24.7	11%
Total Gold Coast (\$M)	11.7	33.1	11%
Total Queensland (\$M)	14.0	39.6	11%
Total Australia (\$M)	17.7	50.2	11%

Source: Economy i.d model for Gold Coast City for economic activity

Trials generate economic activity

Comparative employment growth	Period	Average annual Rate of growth
Projected Clinical Trials	10 years 2019-2029	11%
Gold Coast Employment Total	5 years 2014-2019	4%
Gold Coast Education and Training	5 years 2014-2019	5%
Gold Coast Health Care	5 years 2014-2019	8%

Source: Economy i.d Gold Coast City Economic Profile for 2014-2019 employment

Comparative employment growth Assumed Revenue Impacts **For every \$10M** in revenue from grants or contracts attracted for trials, the impacts are:

- An additional value-added contribution of \$8.9M to the Gold Coast economy;
- An output increase of \$15.1M for the Gold Coast economy;
- The flow on jobs created are high value indicating the importance of support activities for this sector, and
- 89 local jobs, of which the Gold Coast retains 84.7% of the jobs created in Queensland.

Economic Contribution Summary (1)

The main features of the medical clinical trials sector in Gold Coast City are that:

- It is an emerging sector that is rapidly growing;
- The demand drivers are well established and include ageing, population growth, increasing populations in subtropical and tropical areas, increased regulatory pressures, closer scrutiny of research findings and trials results and the need to diversify the trial population base;
- It does not take place in a vacuum, but is preceded by other stages not measured in this study including initial development, non-clinical refinement, clinical refinement and is for the successes followed by market authorisation, training and market adoption;
- It represents significant scientific investigation operating in a highly regulated environment;

Economic Contribution Summary (2)

- The direct jobs created are typically high value knowledge-based jobs that contribute substantially to the economy;
- As high-level science, trials activities are likely to have strong and positive flow-on effects;
- The industry basis and employment profile fit very well with aspirations of Federal, State and Local Government economic development strategies;
- Gold Coast operations are frequently part of national and international collaborations, with strategic functional linkages with global markets;
- Economic inflows and outputs are likely to be high;
- The state, national and international regulatory environments are driving a specialised supporting sub sector in the legal, business, financial and contracting areas; and
- Physical, intellectual and financial factors of production will drive locational decisions.

Supply Chain Development

Clinical Trial Supply Chain (City level)

- trial sites
- participants
- sponsors and therapeutic products
- clinicians and clinical trial staff
- support services
- bioanalytical services
- logistics



Gold Coast	Opportunity
 Existing capability with public and private hospitals, clinics and clinical trial units. The colocation of trial sites at the Gold Coast Health and Knowledge Precinct is a key strength. 	 Phase I Facility or Phase I GP Clinic.

Participants



Gold Coast	Opportunity
 Large and growing population. Ageing population. Diverse population. 	 Phase I population. Database and categorisation. Increase in overall participation.

Sponsors and therapeutic products

Gold Coast	Opportunity
 Gold Coast conducts trials for local, national and international sponsors. Developing new therapeutic products. 	 Regional governance and branding. Promote competitive advantage of oncology, additive manufacturing, Artificial Intelligence, wearables and robotics.

Clinicians and clinical trials staff

Gold Coast

Opportunity

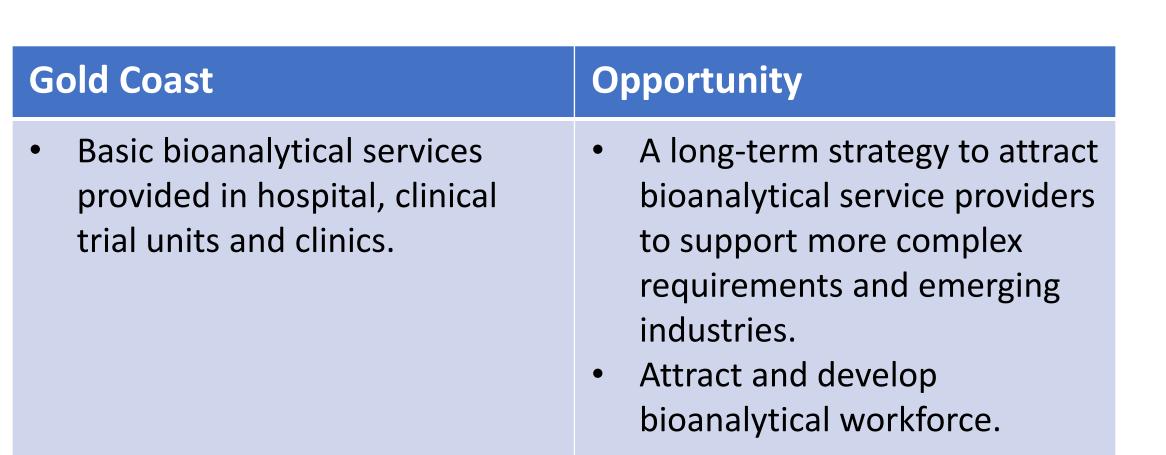
- Highly regarded and experienced clinicians.
- Movement between sites if trials conclude.
- Current clinician and clinical trials staff availability meets existing capacity.

- Increasing Clinical Practice training.
- Develop workforce capabilities:
 - Investigators
 - Clinical Trial Coordinators
 - Project Managers
 - Quality Assurance Manage
 - Data Managers
 - Clinical Trial Nurses
- Greater integration and collaboration between trial sites.



Gold Coast	Opportunity
 Quality of existing allied health and other support services capabilities. 	 Ensure allied health capabilities meet projected growth. Growth potential in regulatory, legal, accounting, ethics and clinical trial development expertise.

Bioanalytical Services



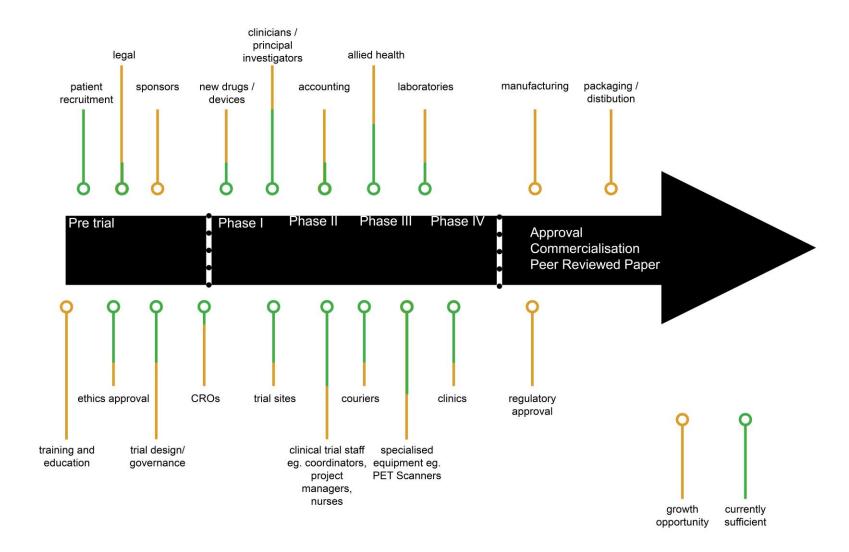


- Strong transport links to clinical trial unit facilities.
- High quality transport (e.g. light rail) to a number of facilities.

Opportunity

- Infrastructure associated with airport, transport and communications.
- A strategy to attract clinical trial logistics companies.
- A capable freight logistics network.

Gold Coast Supply Chain Growth Opportunity



Conclusion

Conclusion



- The Gold Coast is the largest regional city in the country for the delivery of clinical trials
- The sector is expected to grow significantly on the Gold Coast
- This is an emerging sector that is growing quickly and has significant value
- Employment in the sector is expected to more than double over the next ten years and create high value knowledge jobs
- The Gold Coast region has the opportunity to develop the supply chain to meet projected growth



HEALTH AND KNOWLEDGE PRECINCT

Department of State Development, Manufacturing, Infrastructure and Planning

CITY OF GOLDCOAST.



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Giles Consulting	*
INTERNATIONAL	

Business and Economics

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