

CARDIĤAB

Investor
Information Deck

February 2021

Helen Souris CEO

What problem does Cardihab Solve?

~1 in 3 people that had a cardiac event (eg heart attack) will have a repeat event within 3 months

Cardiac rehabilitation has been proven to reduce this risk and even save lives

Yet 80% of patients do not have access to cardiac rehabilitation.

Results and highlights



Cardiovascular disease is the leading cause of death and healthcare costs globally

80% of patients do not access life saving rehabilitation programs



422M people globally

Have cardiovascular disease



785,000 Americans

will have a new MI p.a. with direct and indirect CVD cost > US\$316B ¹



~1 in 3 people

will have a repeat event within 3 months



Medications and surgery

are not enough to prevent events



Cardiac rehabilitation saves lives

yet 80% of patients **do not access** programs

Cardiac rehabilitation reduces risk of death and subsequent cardiac events, yet uptake is low

1.2 million Australians or 1 in 20

are living with heart disease

278,000

Acute overnight separations with cardiac diagnosis in 2018-19

60,000

Coronary procedures in Australian hospitals in 2018-19

Just ~25,000

patients participating in CR

Poor participation is due to

- inconvenience of in Clinic Programs
 - (time capacity and location)
- Group capacity constraints
- Poor access to programs for rural and remote patients
- Busy schedules of patients

Cardihab Solution

Cardihab is Australia's first clinically proven digital cardiac rehabilitation (CR) platform

An online cardiac rehabilitation platform to support cardiac patients in recovery and reduce hospital re-admissions.

Cardihab provides clinicians with licenses to our digital health tools to deliver virtual care to patients.

Class I Medical Device ARTG ID: 340440 Australian Register Therapeutic Goods

Aligned with clinical guidelines



Clinically validated mHealth Apps are changing the medical landscape, but more are needed



Clinically validated digital health innovations are needed to help relieve the untenable pressures on healthcare budgets and systems at scale

mHealth apps have already shown proven reductions in acute care utilisation across diabetes prevention, diabetes care, asthma, cardiac rehabilitation and pulmonary rehabilitation (IQVIA).

As regulation of mHealth apps tighten, only registered Software as Medical Devices (SaMD) will be used in clinical settings

Cardiac rehabilitation anytime, anywhere

Cardihab fills a gap in the global market.

We enable cardiac patients access to cardiac rehabilitation, focusing on recovery and prevention of re-occurrence.

Digitally, remotely, and with flexibility.

- City, Rural and Remote patients
- Patients with busy schedules
- Continuity of care during COVID-19 Social Distancing



Revenue streams span clinical programs and data

Annual License* Fee PLUS \$250 per patient, per plan

Cardiac Rehab
6 weeks & 6 months plans

Custom Plans#

Prevention (Varied plans)

Cardiac Rehab
Care Plans

Annual License Fee PLUS \$250 per patient, per plan

> Heart Failure 12 months

Long term care plans

Custom Plans#

Chronic Care

Annual License Fee

Data (RWE), PROMS, Reporting

Visualisation and Al/ML Algorithms

Decision Support Analytics

Development cost + license fee

Clinical Trial Platform

Data/ RWE Supplement

Clinical Trials

Cardihab product offering targeting health enterprises and giving greater access to cardiac rehabilitation for patients

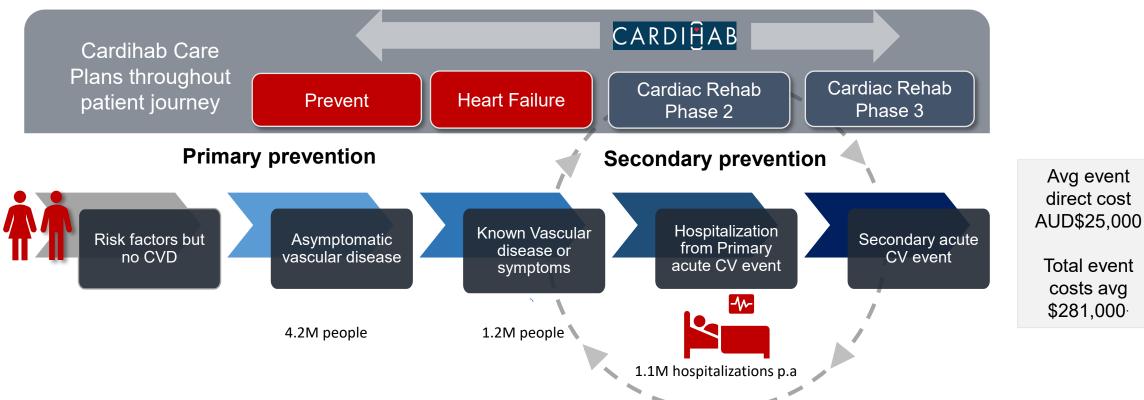
*Standard license \$10K Enterprise License \$35K

#Enterprise customers only



Together with clinicians, Cardihab helps people recover from and prevent life threatening cardiac events

Patient Journey

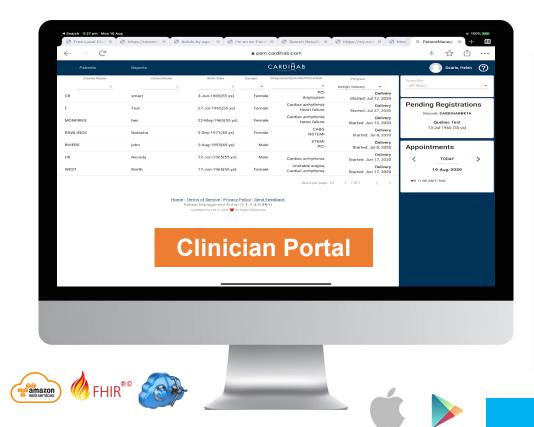


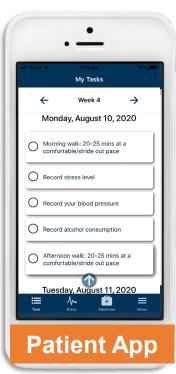
Avg event direct cost

Total event costs avg \$281.000

Cardihab's digital health platform improves access to quality care and outcomes

- ✓ Connect patient to Care team
- ✓ Patient Centred care plans
- ✓ Synchronised Data real time
- ✓ On-demand patient education
- ✓ Secure data hosting





Smartphone or Tablet

Cardihab delivers better outcomes and reach

Cardihab's structured care plans and model of care delivers significantly better outcomes vs traditional face-to face cardiac rehabilitation*

Digital Cardiac Rehabilitation Program comparison	CARDIĤAB	Traditional Face-to-Face Cardiac Rehabilitation
Uptake of Program	80%	62%
Completion of Program	80%	47%
Adherence to Program	94%	68%
Anxiety and Depression	Sig reduction	No reduction
Health-related quality of life	Sig improvement	Improvement



^{*}Varnfield M, Karunanithi M, Lee C-K, et al. Heart 2014;100:1770–1779

Our solution improves participation and outcomes while generating cost savings







Additional Australian patients completing CR with Cardihab, compared with traditional CR (30.2% of patients referred4)

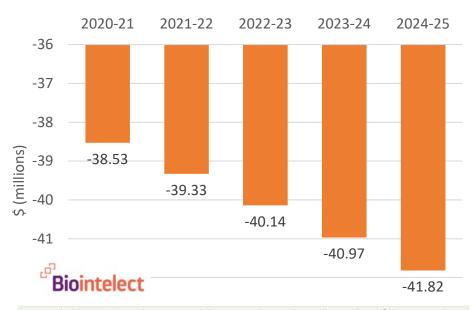
¹ AlHW Admitted patient care 2014-15 to 2018-19 (Chapter 4), https://www.aihw.gov.au/reports-data/myhospitals/content/data-downloads - principal diagnoses included are: ischaemic heart disease (120-125), heart failure (150) and atrial fibrial fibri

Potential budget savings in Australia by substituting traditional CR models with Cardihab is ~\$40M p.a.

We save costs because we:

- 1. Improve patient access and participation rates
- 2. Provide more efficient care with less resources
 - (equipment, people and time)
- 3. Prevent readmission rates especially in cohorts that would otherwise not participate
 - o (ie 80% who don't access CR programs)

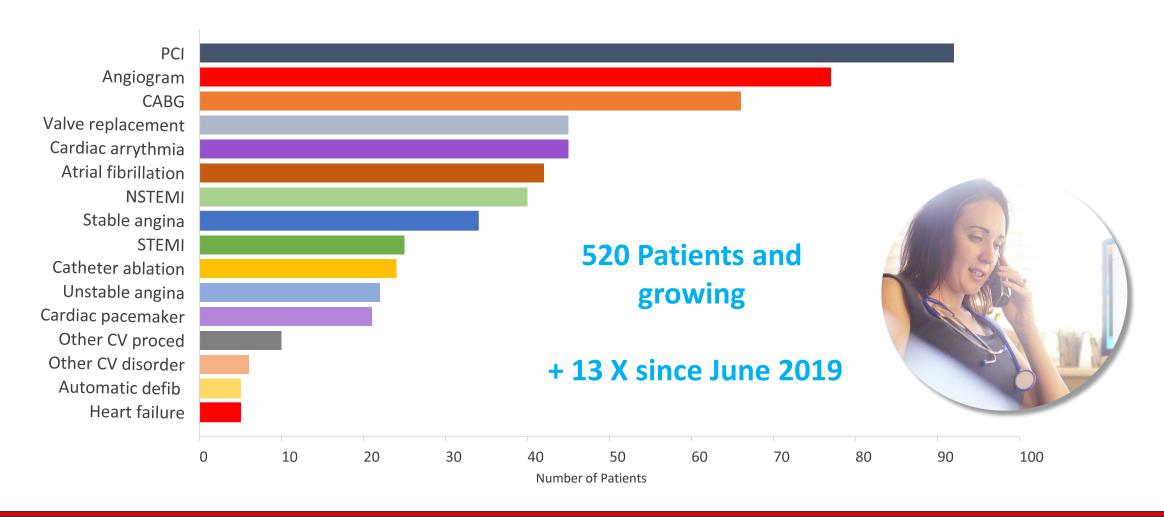
Avoided costs of separations through preventative CR Australia (assuming 30.2% of patients referred⁴)



- Eligible separations have principal diagnosis ischaemic heart disease, heart failure or atrial fibrillation¹
- Higher uptake and adherence to CR with Cardihab means that more patients will benefit²
- Cost of Cardinab is estimated at approximately 25% of the cost of traditional CR³
- No growth is assumed in the cost of Cardihab or traditional CR (due to wide variation in previous growth of NEP price for non-admitted CR³)

¹ AIHW Principal diagnosis data cube 2017-18, National Hospital Morbidity Database – principal diagnoses included are: ischaemic heart disease (120-125), heart failure (150) and atrial fibrillation (148); 2 Varnfield et al. 'Smartphone-based home care model improved use of cardiac rehabilitation in postmyocardial infarction patients: results from a randomised controlled trial', Heart. 2014 Nov;100(22):1770-9. doi: 10.1136/heartjnl-2014-305783; 3 IHPA National Efficient Price Determination 2020-21; 4 Astley et al. 'The Impact of Cardiac Rehabilitation and Secondary Prevention Programs on 12-Month Clinical Outcomes: A Linked Data Analysis', Heart, Lung and Circulation (2020) 29, 475–482; https://doi.org/10.1016/j.hlc.2019.03.015..

Cardihab's use demonstrated across most cardiac conditions



Medibank HeartHealth at Home is achieving great results with NPS +72 and adherence of 91%

Independent assessment by researchers at Monash reported high engagement from patients and clinicians involved in the program

92% of members would recommend the program

91% Adherence to program





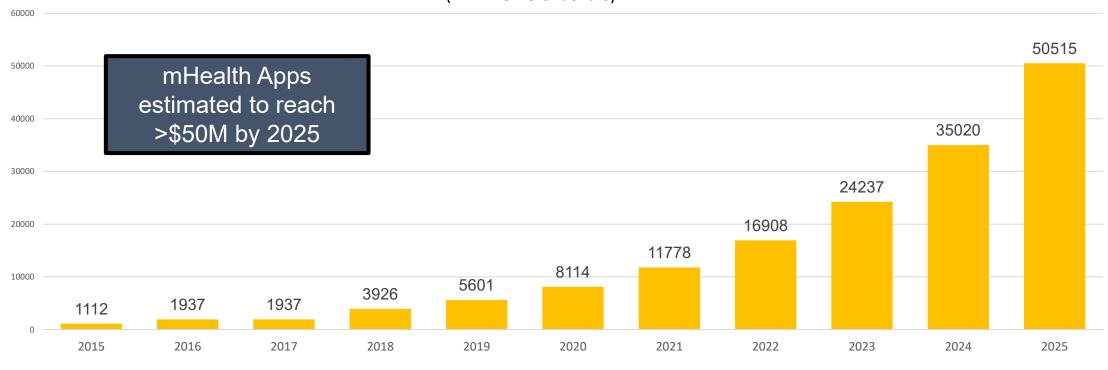


- ✓ Supporting patient during COVID restrictions
- ✓ Enabling participation by people in full time and part time employment typically unable to attend traditional programs
- ✓ Enabling achievement of equitable access targets for remote regional areas
- ✓ Australia wide coverage

The Market

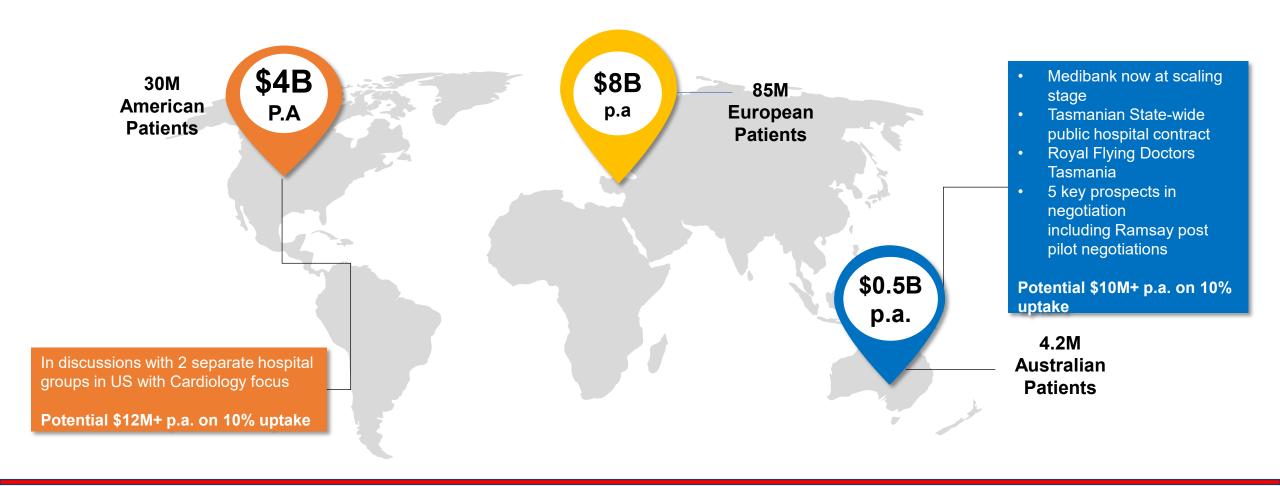
Cardiovascular disease presents a significant opportunity within the growing digital health market

Total mobile health apps market forecast in the United States from 2015 to 2025 (in million U.S. dollars)

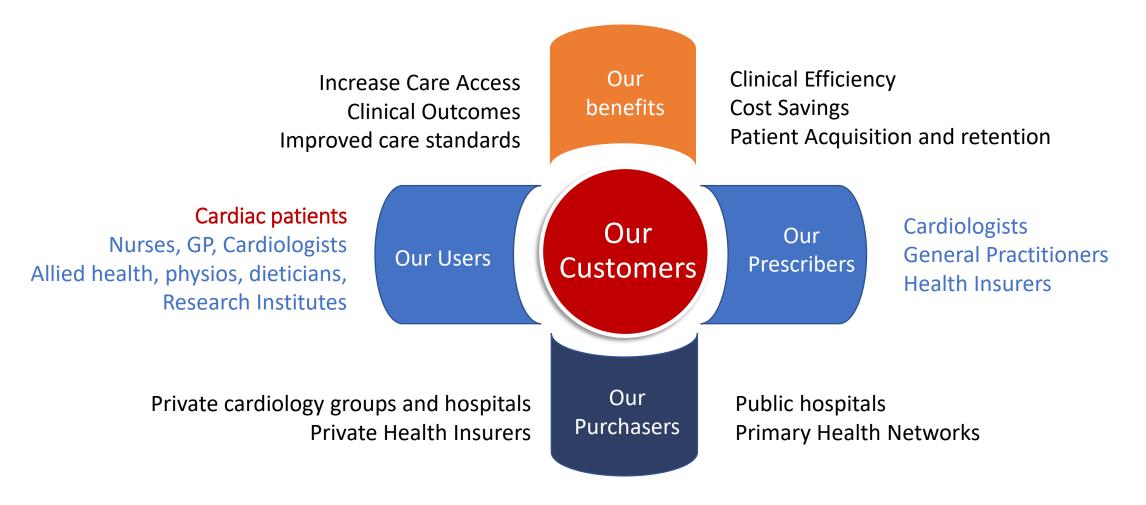


NB Source Statista 2017 - Pre-COVID estimates

422M people globally living with cardiovascular disease. Significant TAMs in key markets



Our stakeholders and customers span all sectors



Healthcare providers and payers are our customers

Private cardiology groups and hospitals

Public hospitals

Private Health Insurers

Cardiac rehab providers/enablers

Hospital in the Home Services









Tasmanian Health
Service Statewide
R

















Customers need Cardihab to reach more patients with quality, cost effective and efficient care

Cardihab is purchased by health enterprises to:

- Increase care access for patients
- Improve clinical care standards
- Improve clinical efficiency
- Achieve cost savings
- Increase patient acquisition and retention



Who is the End User

- Cardiac patients
- Cardiologists
- General Practitioners
- Nurses
- Allied health e.g. physios, dieticians.
- Research Institutes

Cardihab's revenue model comprises Platform License + Patient Access Fees

Standard App

\$10K p.a. per site + \$250 per patient per year, per care plan fees

- Standard service offering
- Cloud based platform for clinicians
- Patient Apps
- Clinical expertise and workflow integration



Enterprise App

\$35K p.a. + \$250 per patient per year, per care plan fees

- Includes all standard items
- Corporate branding on apps
- Technology development for plan customisation





Clinical Partners & collaborators

















Competitors are active, but SaMD regulatory changes will impact the market

The competitive landscape is active, particularly in the USA.

Australian competition is minimal with some unvalidated disease agnostic platforms

Cardihab's competitive edge will be maintained by:

- ✓ Our RCT clinical validation
- ✓ Clinical expertise
- ✓ Regulatory registration (Class I Medical Device SaMD)
- ✓ Unique real world evidence suite
- ✓ New platform innovations
- ✓ ISO Compliance
- ✓ Innovative ML/AI and analytics



Samsung HeartWise
Collaboration between
Kaiser Permanente/
Samsung (USA) digital CR



Personify (AUS) disease agnostic Software for health providers to streamline care



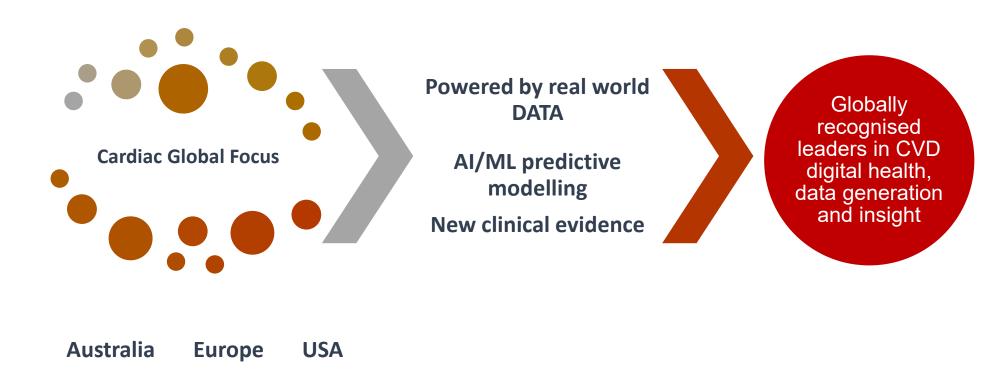
(USA) Cloud- and mobile-based population health management platform, with an emphasis on patient engagement.



Welldoc Diabetes (USA) Digital care delivery solution for Diabetes

Strategic focus is to maximise the use of Cardihabs platforms within Cardiac disease + DATA optimisation

Our strategic focus is to transform Cardihab from a cardiac rehabilitation digital provider to a leading digital provider of chronic disease management + DATA generator + clinical trials platform.



Cardihab Team



Helen Souris, CEO

- 20+ years digital & health commercial expertise
- Leading multinational and Australian start-ups.
- ACNielsen, Red Sheriff, Eli Lilly, AstraZeneca, OneFourNine, PainChek
- B.A Statistics (CS)



Grant Jennings Christine Kwong Snr Tech



Clinical Specialist



Mark Roland Engineer



Sai Paruchuri Engineer



Ezsa Franza QA



Loyd Ocampo Engineer



Claire Cottrell H/O Clinical Outcomes and Market Access















Cardihab Board Members



Natasha Rawlings
Uniseed Investment
Manager, Cardihab Board
Chair, GAICD



Dr. John Rivers

BSc (Med) | MBBS | FRACP

| FCSANZ , Director

Queensland Cardiovascular

Group (QCG)



Tim Fortin Ex Vice President & Managing Director, Australia & New Zealand for Medtronic, and prior Boston Scientific General Manager, Cardiovascular, ANZ



Prof Hugh Dawkins
PhD, GAICD
Prof, School of Medicine,
University Notre Dame; and
A/Prof Division of Genetics,
School of Biomedical
Sciences, University of WA.

The Investment Offer

Investment offer

Cardihab is seeking investment of AUD\$3M by way of equity

Current pre money valuation: AUD\$7.8M

Funds will be used to support channel expansion and to ramp up enterprise sales, paid clinical trials and user acquisition of the platform.

Investment Offer		
Raise target	AUD \$3,000,000 (three million dollars)	
Offer Type	Preference Shares	
Offer Open	February 2021	
Offer Closed	April 2021	
Details	Per investor minimum \$50K (new investors) Professional, Sophisticated Investors, Family Offices, Companies, Trusts, Investment Funds and other Institutions	

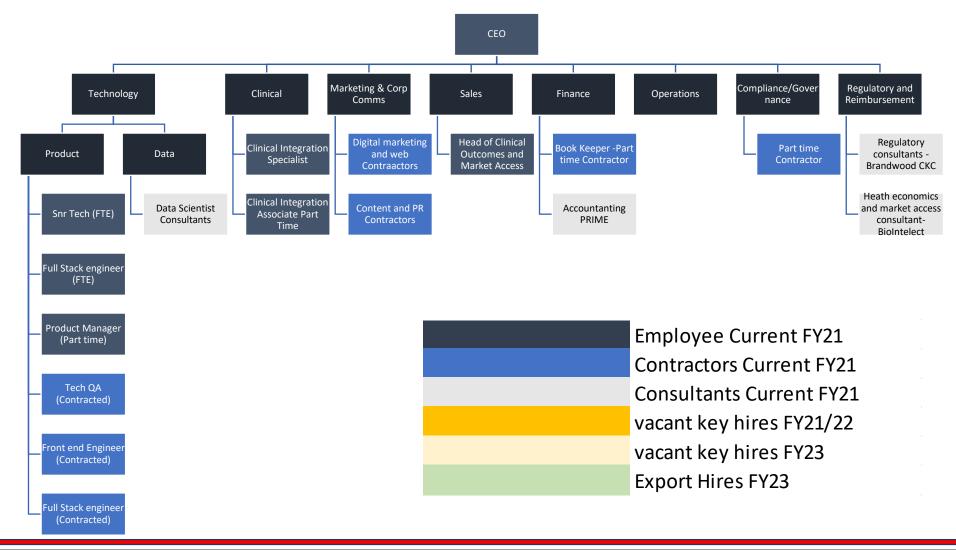
Use of funds

Cardihab is an early stage growth company, experiencing strong interest both locally and globally in its clinically proven cardiac rehabilitation digital solution.

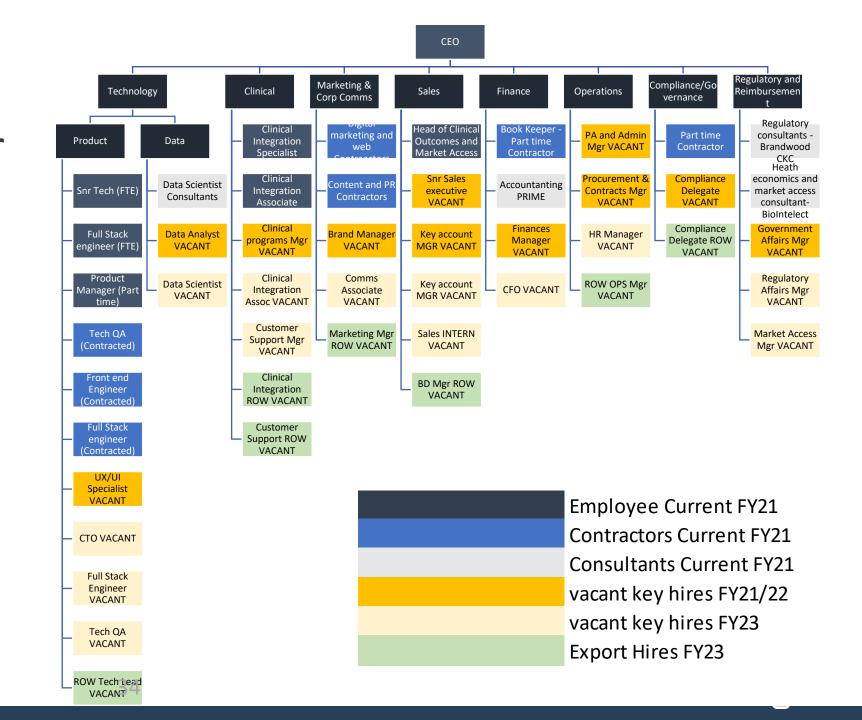
Funds will be used predominantly to facilitate scaling key current customers and major leads, expanding clinical platform and service offering and lay foundations for international expansion.

Use of Funds	\$3,000,000 Capital Raise
Product and Software Development	\$360,000
Resources / R&D projects	\$630,000
Operations	\$450,000
Sales & Marketing	\$750,000
Recruitment	\$600,000
Regulatory and QMS	\$210,000
Total Use of Funds	\$3,000,000

Current Org Chart and team composition

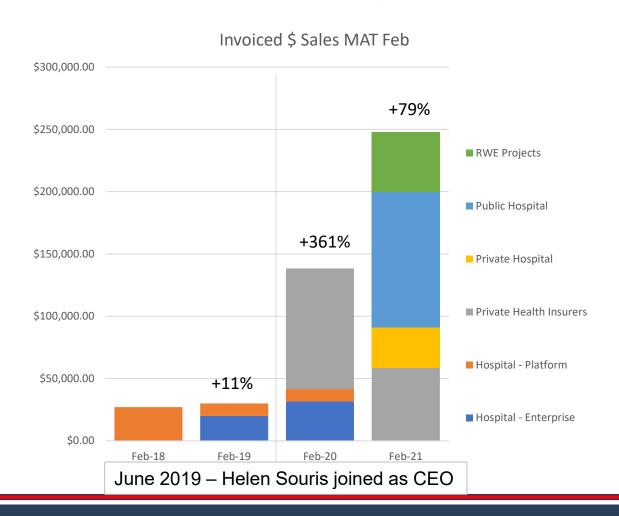


3 year projections for planned team expansion to create growth and scale



Financials And Forecast

Strong growth in revenue and broader customer uptake in consecutive Moving Annual Total (MAT)



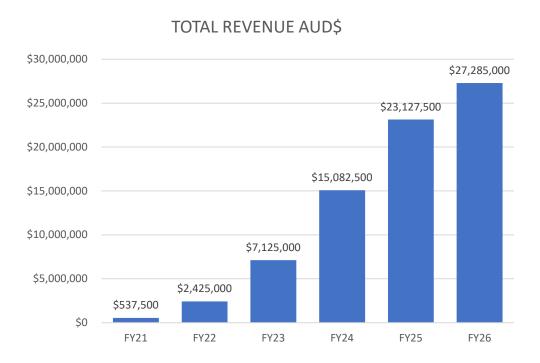
Contracted ARR ~\$340K +

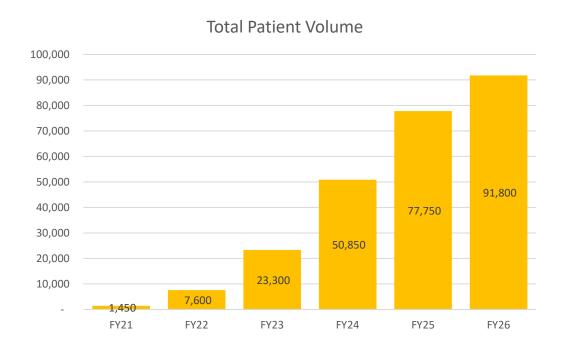
Annual subscription plus minimum patient volume commitments



NB figures exclude scaled contract negotiations that are in progress for key PHI and Private hospital accounts

Cardihab has the potential to be a high value business and delivers what customers need now and for the future





Market Access Route:

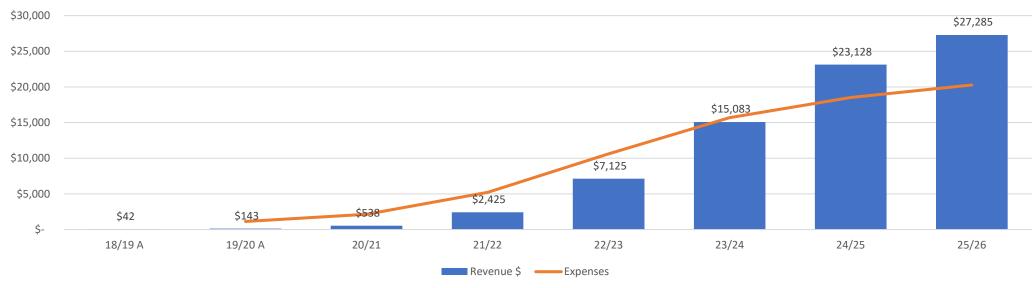
- Few key clients with multiple sites and large patient volumes for scale
- Private sector focus
- Slightly more smaller customers addressing critical gaps in care
- Earlier but smaller scale public sector activation with full scale FY24 +

Key assumptions:

- Overall COVID 12-18 month impact on patient flows (lower)
- Change in mix of Chronic Care plans (upwards over time) vs CR
- Pilots in OS markets (USA/EU) FY 23 +

Cardihab has the potential to be a high value business and delivers what customers need now and for the future





	Historical Actual			Forecast FY												
Annual Sales (FY)	18	/19 A	19)/20 A	2	20/21	2	21/22		22/23		23/24		24/25		25/26
Revenue \$	\$	42	\$	143	\$	538	\$	2,425	\$	7,125	\$	15,083	\$	23,128	\$	27,285
Patients (A+C)			40		14	50	760	00	233	300	508	50	777	'50	918	300
Sites			5		9		22		31		44		70		80	
Funding						\$1.5M		\$3M		\$5M *						
Expenses			\$	1,143	\$	2,139	\$	5,220	\$	10,615	\$	15,703	\$	18,520	\$	20,262

NB one customer can have multiple "Sites"

Break even FY 2025@ ~\$1.4M revenue per month

^{*} Tentative funding for OS expansion

Illustrative revenue model demonstrates that revenues are largely driven by patient volumes

Cardihab example global revenue model – illustration only

Illustrative Revenue - Enterprise License	Scenario 1	Scenario 2	Scenario 3	Scenario 4
LICENSE SALES				
Number of Standard Customers (hospitals, cardiac care groups, health insurers etc.) – one site only	40	120	500	1000
Estimated total revenue based upon SmartCR Package @ \$10k per site, per annum	\$ 400K	\$ 1.2M	\$ 5M	\$ 10M
Number of Enterprise Clients (hospitals, cardiac care groups, health insurers etc.)	60	180	750	1000
Estimated total revenue based upon Enterprise (White label) Package \$35k (Head Office) per annum	\$ 2.1M	\$ 8.7M	\$ 26.3M	\$ 35M
PATIENT SUBSCRIPTIONS				
Scenario 1: Number of patients (500 per site per annum)	50K	150K	625K	1M
Scenario 2: Number of patients (1000 per site per annum)	100K	300K	1.3M	2M
Estimated total revenue based upon Patient subscription to one of Cardinab's care plans @ \$250 p.a.	\$12M- \$25M	\$37M - \$75M	\$156M - \$312M	\$250M- \$500M

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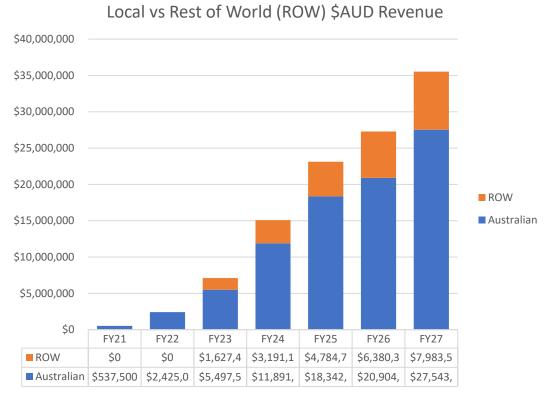
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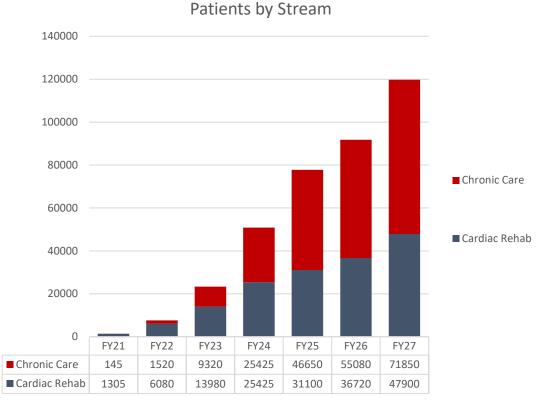
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Forecasts and assumptions for international expansion and patient segments within cardiovascular disease





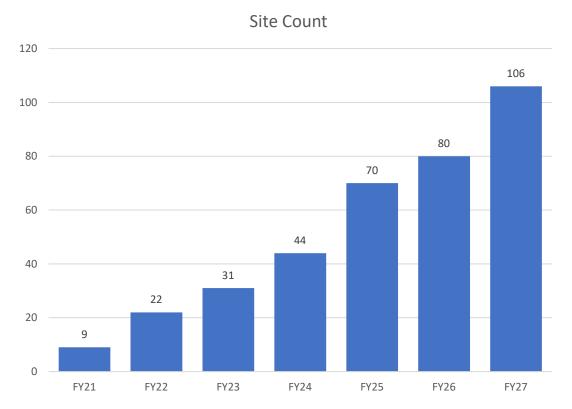
- FDA / EUMDR registration as Class I medical device
- Pilots required in key clinics before scale
- Clinical integration and customer support teams in each market



Key assumptions:

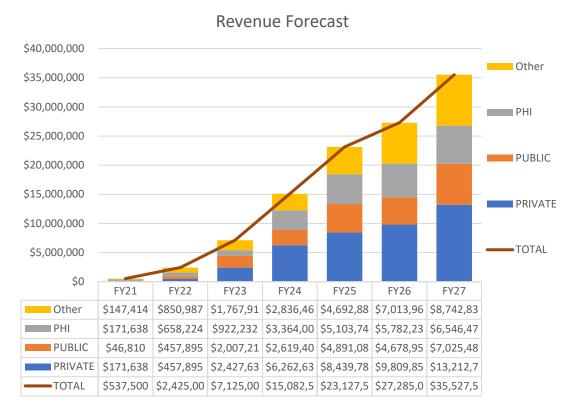
- Larger population in chronic disease market than cardiac rehab
- Segmentation and targeting higher risk population vs newly diagnosed low risk
- Cardiovascular population only (no other indications in this forecast)

Forecasts and assumptions site count and revenue streams



Key assumptions:

- Focus on key accounts with high patient volumes and/or multiple sites to drive revenue
- NB Key accounts (eg Tasmanian Health Service) have multiple "sites"



Key assumptions:

- Decision support and analytics revenues captured within streams
- Project based clinical trials technology revenue only vs trial management

	Historical FY			Forecast FY						
(\$'000's)	18/19 A	19/20 A		20/21	21/22	22/23	23/24	24/25	25/26	26/27
Revenue										
Hospital (private & Public)	41.5	41.5		280.9	1,516.8	5,397.8	10,158.5	15,563.8	18,622.8	25,321.0
Private Insurers	0.0	101.2		171.6	658.2	922.2	3,364.0	5,103.7	5,782.2	6,546.5
RWE/ CT/Other	0.0	0.0		85.0	250.0	805.0	1,560.0	2,460.0	2,880.0	3,660.0
Net sales	41.5	142.7		537.5	2,425.0	7,125.0	15,082.5	23,127.5	27,285.0	35,527.5
COGS	14.6	31.0		68.1	222.0	408.0	744.0	1,020.0	1,164.0	1,320.0
Gross Profit	26.9	111.7		469.4	2,203.0	6,717.0	14,338.5	22,107.5	26,121.0	34,207.5
Gross Margin %	87%	81%		87%	91%	94%	95%	96%	96%	96%
Operating Expenses										
General and Administrative (G&A)	92.1	88.6		225.6	606.5	1,175.9	1,666.2	2,353.2	2,773.2	3,110.5
Physical Assets	0.4	3.7		28.1	118.3	209.0	280.3	310.6	338.4	366.0
Research and Development	147.4	325.5		467.5	729.6	1,770.8	3,836.9	3,969.6	4,221.6	4,632.0
Sales and Customer Acquisition	61.5	70.2		168.3	751.5	1,393.4	2,106.0	2,592.0	3,036.0	3,600.0
Consultants/Advisory	0.0	164.3		267.6	618.0	1,528.6	1,807.8	1,916.1	1,808.1	1,980.0
Wages and Salaries	1,058.0	490.4		982.1	2,395.7	4,537.7	6,005.4	7,378.4	8,084.8	9,163.6
Total Operating Expenses	1,359.5	1,142.7		2,139.1	5,219.6	10,615.5	15,702.7	18,519.8	20,262.1	22,852.1
Net Operating profit (loss)	-508.0	-1,301.0	0.0	-1,669.7	-3,016.6	-3,898.5	-1,364.2	3,587.7	5,858.9	11,355.4
Interest income										
Net income (loss)	-508.0	-1,301.0	0.0	-1,669.7	-3,016.6	-3,898.5	-1,364.2	3,587.7	5,858.9	11,355.4
Summary Cash Flow										
Beginning Cash	0.0	0.0		524.0	354.3	337.7	1,439.2	75.1	3,662.7	9,521.6
Cash from (Used) operations	0.0	-1,301.0		-1,669.7	-3,016.6	-3,898.5	-1,364.2	3,587.7	5,858.9	11,355.4
Other Sources (Uses) of Cash	656.0	2,000.0		1,500.0	3,000.0	5,000.0	0.0	0.0	0.0	0.0
Ending Cash Balance	0.0	699.0	-	354.3	337.7	1,439.2	75.1	3,662.7	9,521.6	20,877.0
FTEs (year end)	11	5		10	19	27	33	39	41	41

Commentary

- First sales via paid pilots began in Jul 2017
- Total \$ earned to date \$428K @Dec 2020
- Total \$ burned to date (August 1) ~\$3M
- 2019/20 validation :
 - Medibank signed (~\$100K over 12 months)
 - Renewed till October 2021
 - Wesley Heart Failure Clinical Trial funding \$~50K
 - HBF ~\$30K
 - Epworth Camberwell ~\$39K
 - QCCN renewal ~\$7k
 - NEW: Tasmanian Statewide Health Service ~\$80K+ beginning Q1 2021
 - NEW: Royal Flying Doctors Tasmania ~\$80K+ beginning Q1 2021
 - Ramsay Health negotiating staged roll out beginning Q1 2021
- Model assumes \$3 million Pre-Series A round to fund the Company through to FY22 with further Fundraising upon target milestones
- Cardihab currently has funding until May 2021
- NB, due to rounding to \$'000s, not all columns add exactly

Financial Highlights

Revenue (FY)

- 2019 @ \$42K
- 2020 @ est \$143K
- 2021 @ est \$538K (~\$253K to date)
- 2022 @ est \$2.4M
- 2023 @ est \$7.1M
- 2024 @ est \$15.1M
- 2025 @ est \$23.1M

Burn Rate

- Current @ ~\$100K
- Peak @ \$1.2M (FY25)

Breakeven

- At \$1.7M monthly revenue run rate
- Targeted B/even for FY24
- B/even requires Data opportunity project, US expansion Q4 FY22 and Clinical Trial platform concept dev.

Estimated Losses (FY)

- 2020 @ \$(1.3M) (actual)
- 2021 @ \$(1.6M)
- 2022 @ \$(3.0M)
- 2023 @ (\$3.9M)
- 2024 @ \$1.4M
- 2025 @ \$3.6M

Cost of Key Projects-

- Data opportunity Optimised platform functionality, reporting and AI/ML analytics.
 ~\$700K
- Optimise integration with medical device wearable and EMR ~\$200K
- Rebranding and relaunch Australia ~ \$250K
- Customer engagement optimisation \$500K
- Clinical Trial platform concept ~\$400K
- Reg and operations (incl export prep) \$500K

Key Value-Drivers (next 12 months)

- TGA registration
- Patient uptake and Data showing patient benefit
- Revenue model established; sales cycle reduced
- Firm relationships with major customers
- Back end activity / opportunity tangible
- Plan for expansion other countries and/OR other chronic indications
- Bolster team accomplished full time leadership

Appendix

About Cardihab









- A digital health company that exists to help patients reach optimal health when at risk of, or living with, heart disease globally.
- The technology originates from within the CSIRO
- Cardihab was incorporated in February 2016 as the commercialisation vehicle for mobile health (m-health) research at the Australian E-Health Research Centre (AEHRC) a joint venture between CSIRO and Queensland Health.
- Strong commercial Board and Management
- Current shareholders include Uniseed Artesian Capital Management, Stoic VC, Queensland Cardiovascular Group (QCG) and CSIRO (on behalf of AEHRC).

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Risks and Mitigants



References

Slide 2 Cardiac rehabilitation reduces risk of death and subsequent cardiac events, and yet uptake is low

1.G. Balady et al. Referral, Enrollment, and Delivery of Cardiac Rehabilitation/Secondary Prevention Programs at Clinical Centers and Beyond. A Presidential Advisory From the American Heart Association; Originally published 1 Dec 2011 https://doi.org/10.1161/CIR.0b013e31823b21e2Circulation. 2011;124:2951–2960.

Slide 7 Australian statistics and participation rates

1 ABS National Health Survey: First Results, 2017–18 — Australia, https://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/4364.0.55.001~2017-

18~Main%20Features~Heart,%20stroke%20and%20vascular%20disease~55; 2 AIHW Admitted patient care 2018-19, https://www.aihw.gov.au/reports-data/myhospitals/content/data-downloads (excludes private hospitals in Tasmania ACT and NT) – principal diagnoses included are: ischaemic heart disease (I20-I25), heart failure (I50) and atrial fibrillation (I48); 3 AIHW Non-admitted patient care 2018-19 (Table S3.13); 4 AIHW 'Transition between hospital and community care for patients with coronary heart disease: New South Wales and Victoria 2012–2015', 2018, https://www.aihw.gov.au/reports/heart-stroke-vascular-diseases/transition-hospital-community-care-heart-disease/contents/table-of-contents; 5

Anderson et al. 'Exercise-based cardiac rehabilitation for coronary heart disease', Cochrane Systematic Review – Intervention 2016, https://doi.org/10.1002/14651858.CD001800.pub3.

Slide 8 Digital health sector projections US sales

Sources: Statista estimates 2017; Grand View Research © Statista 2020

Slide 16 Cardihab Outcomes

Varnfield M, Karunanithi M, Lee C-K, et al. Heart 2014;100:1770–1779



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Canadian College of Cardiology poster October 2020

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Improving uptake of cardiac rehabilitation with a smartphone enabled application and understanding barriers to success



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Background

Current guidelines recommend referral for cardiac rehabilitation following acute cardiac events but participation rates are poor. ¹² Uptake of cardiac rehabilitation (CR) remains a challenging problem for multiple reasons including: distance/transport, time, cultural, cost and psychological constraints. ³⁴

This study evaluated the impact on CR participation associated with the introduction of a smartphone enabled app (CardihabTh) for patients declining conventional CR. Information on barriers to CR participation were collected.

Methods

204 consecutive patients were offered CR post angioplasty; 99 in phase one who were offered conventional CR only, and 105 in phase 2, initially offered conventional CR with app-based CR offered to those patients who declined conventional CR. Patients were followed throughout a 6-week CR program and participation rates were compared for Phase 1 and 2. Patients were evaluated based on the mode of CR in which they initially agreed to participate.

Patients declining all forms of CR in phase 2 were interviewed to assess reasons for non-participation.

The occurrence and cause of hospital readmissions within 12 months of the index cardiac event were retrospectively documented for Phase 2 patients.

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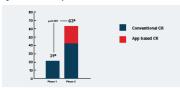
Results

- In Phase 1, 21 patients (21%) undertook conventional CR while in Phase 2, 43 patients (41%) elected to undertake conventional CR (p=0.002). Of the 62 patients declining conventional CR in Phase 2, a further 23 elected to participate in the app-based program. (Table 1)
- In Phase 2 a total of 66 patients (63%) undertook CR, using either the conventional or app-based program. The increase in CR participation from Phase 1 to Phase 2 was statistically significant (p-0.001). (Figure 1)

Table 1: Summary of patient participation by mode of cardiac rehabilitation

	(n=	99)	(n=1		
	Male	Female	Male	Female	
Number	73	26	79	26	p=0.806*
Approached	(74%)	(26%)	(75%)	(25%)	
Median Age	70	73	66	71	M: p=0.006*
(168)	(63-74)	(68-80)	(58-71)	(62-77)	F: p=0.164*
Conventional	21 (21%, CI	:14%-30%)	43 (41%, CI	p=0.002*	
CR Enrolled	13 (18%)	8 (31%)	31 (39%)	12 (46%)	
App-based	_		2		
CR Enrolled	n	/a	21	2	
Total CR uptake	21 (21%, CI	:14%-30%)	66 (63%, CI	53%-71%)	p<0.001*
	13 (18%)	8 (31%)	52 (66%)	14 (54%)	
*p-values for compari				ervals calculated a	aing the Wison

Figure 1. Overall CR Participation Rates



- From Phase 1 to Phase 2, participation by males in the CR program increased from 18% to 66% (p-0.00f). There was no significant difference for females (p-0.09). The Increase in male participation arose from Increased participation in the conventional program (18% to 39%), plus a significant contribution from those taking up the app-based program (214%, 44%).
- Patients participating in the app-based CR were younger (median: 61 vs. 70 years, p=0.005)
- Patients who declined CR during Phase 2 (n=39) were interviewed to Identify reasons for non-participation (Table 2). 9 patients (23%) reported psychosocial issues and 9 patients (23%) Identified technology issues as reasons for not taking up appbased CR.

Table 2: Patient-reported reasons for declining participation in CR (n = 39)

Reason	Number (%)
Further cardiac procedure scheduled	11 (26%)
Psychosocial Issues	9 (23%)
Technical concerns (device or operator) re app-based CR	9 (23%)
Comorbidities (Alzheimer's; hearing difficulties)	3 (0.08%)
Unable to be interviewed or living outside Australia	3 (0.08%)
Completed CR previously and feel another program won't be useful	2 (0.05%)

Hospital readmissions (by primary diagnosis categories) within 12-months post the initial cardiac event for Phase 2 patients are shown in Table 3. Cardiac readmission was observed to be very low in the app-based (Cardihab) CR cohort at 4%, considerably higher at 33% for conventional CR patients and 13% for the no CR cohort (p=0.025). This may partly reflect a younger cohort in the app-based CR patients.

Note: Study not specifically designed to detect differences in readmission rates.

Table 3: Hospital readmissions within 12 months of index cardiac event

		No CR	CR	App-based CR	
Patients	n	39 (M: 69%)	43 (M:70%)	23 (M: 91%)	
(Phase 2)	Age (IQR)	68 (61-74)	70 (63-74)	61 (56-69)	
	n	10 (M: 60%)	21 (M: 67%)	5 (M:100%)	
All readmissions	Age (IQR)	65 (61-75)	69 (63-73)	68 (66-70)	
	Proportion (%)	26% (15%-41%)	49% (35%-63%)	22% (10%-42%)	
	n	5 (M: 60%)	13 (M: 77%)	1 (M: 100%)	
Cardiac readmissions	Age (IQR)	66 (59-71)	69 (63-73)	68 (n/a)	
	Proportion (%)	13% (6%-27%)	33% (19%-45%)	496 (196-2196)	
LOS interespetite comm	. N'OF Annuals Steen Marie	Ville many defend on house 4th		- Mars F. Confidence	

IQR, interquartile range; F2F, face to face. No IQR is provided where the number of cases is less than 5. Confid intervals (95%) shown for proportions were calculated using the Wilson score interval.

Conclusion

- Providing the additional option of an appbased CR program to patients who declined conventional CR was associated with an increase in overall CR participation rate from 21% in phase 1 to 63% in phase 2.
- Use of a clinically validated, smart-phone enabled, digital CR program can improve CR participation and should be considered as a standard component of a CR service, particularly for patients who find conventional CR impractical, inconvenient or unappealing.
- Further trials are needed to assess the value of app-based risk factor modification on long term clinical outcomes.

Disclosures 1. I. Smith has not had an affiliation (financial or otherwise) with a commercial organization that may have a direct or indirect connection to the content of this presentation. 2. J.T. Rivers and C. Smith work within Queensland Cardiovascular Group which is the clinical development partner for Cardihab Pty. Ltd. and a shareholder of Cardihab Pty. Ltd. JT. Rivers is a director of Cardihab Pty. Ltd. James Cameron (deceased) worked within Queensland Cardiovascular Group. (Financial Interest Modest & \$100).

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Cardihab is getting a great response from patients and clinicians across Australia

Our digital health platform enables quality and engaging care without face to face contact with telehealth enabled clinical consultation over video or phone



Our expansion plans include US, Europe and Asia

We are committed to expanding our community of Cardihab providers to deliver more results like these

Heart of the matter

Heart surgery can be stressful at the best of



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"Doing appointments with nurses over the phone was obviously a much better way of doing it, being able to keep social distancing while also letting the nurses track my progress was important for my recovery."

1577 views LinkedIn

"Not only filling it in encouraged me to do the exercise, and do the check in. I might not have done it [the exercise] otherwise, I would have got a bit lazy."

824 views LinkedIn track with a heart hea × + bluemountainsgazette.com.au/story/6848364/keeping-on-track-with-a-heart-health-app/ Keeping on track with a heart health app Ilsa Cunningham Neil Buckland had a heart valve replacement and bypass operation in March, and credits a telehealth cardiac rehabilitation program with his ongoing

Medibank HeartHealth at Home is achieving great results with NPS +72 and adherence of 91%

Independent assessment by researchers at Monash reported high engagement from patients and clinicians involved in the program

92% of members would recommend the program

91% Adherence to program







- ✓ Supporting patient during COVID restrictions
- ✓ Enabling participation by people in full time and part time employment typically unable to attend traditional programs
- ✓ Enabling achievement of equitable access targets for remote regional areas
- ✓ Australia wide coverage

Team at QCCN are also getting great feedback from their Cardihab patients

"Really happy with the Cardihab app, and the advice has been really good. We have learnt a lot. Really impressed with the attention: phone support and organising extra services. I felt a bit lost about my prognosis at the beginning, but now I know so much more. And more confidence about my heart health."

M. & B. Jensen, Mt Pleasant

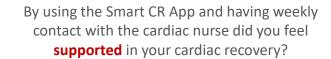


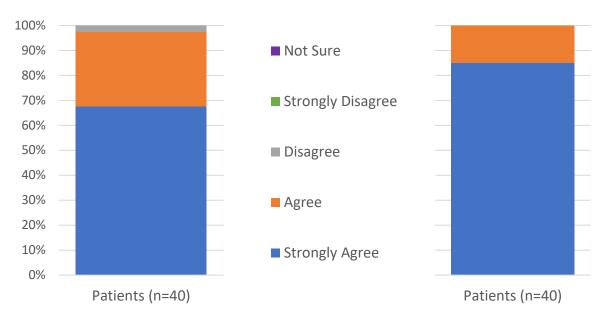
Cardihab enabled continuity of care during COVID-19 lock downs with positive outcomes and support for patients

98% motivated

100% Supported

The Smart CR app **motivated** me to complete my daily tasks and activities including my daily recommended walks





"Felt totally supported not only in regards to heart condition but mentally and physically. Complete care physically, mentally and educationally"

"Motivation to change behaviour and lifestyle"

"App is great, covers a lot of different areas of support"

"... I very much enjoyed the app together with the online consultation with the suite of expert nurses.... I can see this just being enhanced with in person classes as well"

Proud to collaborate on research that will provide important insight into COVID-19 and Heart Failure

This study aims to understand the impact of:

- COVID-19 infection and sequela for heart failure patients
- health implications of patient isolation
- benefits of Cardihab in monitoring and mitigating some of the associated risk factors
- Utilizes the Cardihab platform as the trial intervention platform and database

Supporting those with pre-existing condition COVID-19 Rapid Response Research Centre

WESLEY MEDICAL DESEARCH

Wesley Medical Research's COVID-19 Rapid Response Research Centre

Partnership with Baker Heart And Diabetes Institute

- Successful Heart Foundation Vanguard grant application by A/Prof Melinda Carrington
- Study aims: Improving secondary prevention and survivorship after a coronary event through enhanced disease management in higher risk individuals
- Up to Two Years
- VIC







FY21-FY22 Clinical Trial program to expand clinical evidence and use of Cardihab

