

# ResApp Health

## You snooze, you lose

### SPECULATIVE BUY

(no change)

Current price:	A\$0.091
Target price:	A\$0.21
Previous target:	A\$0.21
Up/downside:	130.8%
Reuters:	RAP.AX
Bloomberg:	RAP AU
Market cap:	US\$50.57m
	A\$68.99m
Average daily turnover:	US\$0.15m
	A\$0.21m
Current shares o/s	693.0m
Free float:	74.1%

- RAP announces it has received positive feedback and a clear path for regulatory submission for its SleepCheck application with the US FDA.
- A human factors (HF) study is required, which is expected to commence in the next couple of months followed shortly by submission of its 510(k).
- HF studies are relatively inexpensive and, if approved, will be cleared initially as a diagnostic (prescription only) in the US. Further clinical studies are required to support over-the-counter (OTC) use as there are no OTC predicate devices and earmarked to commence end FY21.
- A clear positive for RAP if achieved; however, investors appear unlikely to assign much value to the announcement until receipt of approval given the difficulty in dealing with the FDA to date.
- We view recent weakness as an opportunity to add to positions ahead of a number of significant milestones. We have made no changes to forecasts and retain our Speculative Buy recommendation and target price of A\$0.21.



Price performance	1M	3M	12M
Absolute (%)	-20.9	-30	-68.6
Relative (%)	-27.3	-37.4	-66.4

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Analyst(s) own shares in the following stock(s) mentioned in this report:

- N/A

### What is a human factors study?

A human factors (HF) study is effectively a usability study where users test various factors of an application or device to understand and improve the way that people may perceive the information, interpret that information and ability to make an actionable decision about what to do next, and inform ease of control or navigation. Outcomes typically inform any potential deficiencies in usability although importantly in a medical device sense help reduce risk of use errors. These studies are cheap and typically run <A\$20k, only requiring a minimum of 15 representative users and expected to commence 1QCY21. Further clinical data for OTC is also relatively inexpensive and likely to cost ~A\$100k based on an estimated 100 patient sample being required.

### SleepCheck – a reminder on clinical data to date

RAP developed the SleepCheck algorithm with data showing high levels of accuracy when compared to alternative at-home monitoring and diagnosis of OSA. In its clinical study (n=238), SleepCheck correctly identified patients (sensitivity) with mild OSA (85% accuracy), moderate OSA (83% accuracy), and severe OSA (83% accuracy) while correctly determining when a patient did not fit within the various spectrums (known as specificity) - mild OSA (73%), moderate OSA (80%) and severe OSA (90%) when compared to an AASM Type II sleep study (full but unattended polysomnography test) performed simultaneously in the patient's home. The application works by analysing breathing sounds to determine the level of hypoxia experienced during sleep.

### Investment view – maintain positive recommendation

We have made no changes to our forecasts and our DCF valuation remains at A\$0.21. We have set the target price at the same level. Our assumptions continue to fully discount the SleepCheck product and ResApp-DX verticals outside of Telehealth, noting the early nature and number of commercial questions still remain. The downside risk includes failure to roll out the cough diagnostic across Europe and Australia in a timely manner. We maintain our Speculative Buy rating for investors with a higher risk profile.

Financial Summary	Jun-19A	Jun-20A	Jun-21F	Jun-22F	Jun-23F
Revenue (A\$m)	0.00	0.97	2.40	11.25	20.63
Operating EBITDA (A\$m)	-7.04	-8.52	-4.72	3.88	12.99
Net Profit (A\$m)	-7.24	-8.52	-4.87	3.67	12.87
Normalised EPS (A\$)	(0.010)	(0.011)	(0.006)	0.005	0.016
Normalised EPS Growth	5%	6%	(44%)		244%
FD Normalised P/E (x)	NA	NA	NA	19.78	5.75
DPS (A\$)	-	-	-	-	-
Dividend Yield	0%	0%	0%	0%	0%
EV/EBITDA (x)	NA	NA	NA	16.80	4.10
P/FCFE (x)	NA	NA	NA	22.57	5.98
Net Gearing	(93.0%)	(82.5%)	(100.0%)	(94.3%)	(95.6%)
P/BV (x)	10.94	9.99	22.70	9.16	3.40
ROE	(128%)	(134%)	(96%)	66%	87%
Normalised EPS/consensus EPS (x)			0.62	0.92	0.79

SOURCE: MORGANS, COMPANY REPORTS

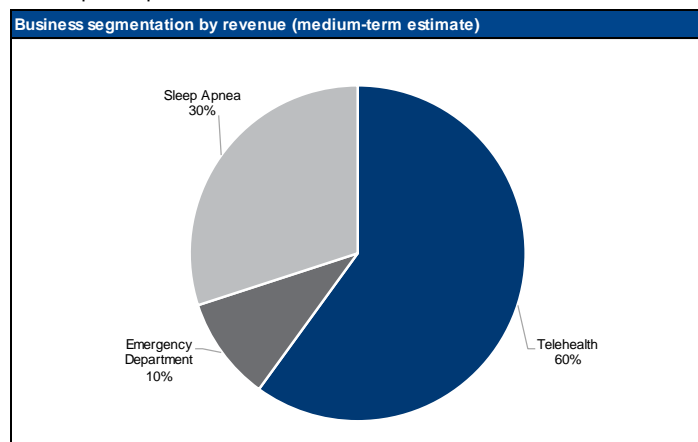
## ResApp Health

as at November 24, 2020

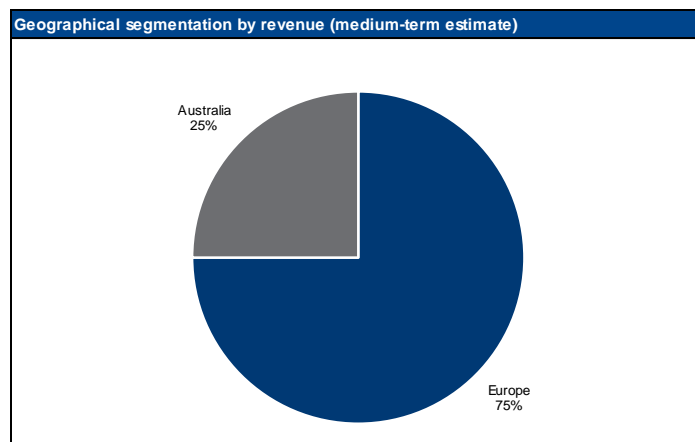
Market cap (A\$m):	68.99	Rating:	SPECULATIVE BUY
Shares outstanding (m):	693.0	Price (A\$):	0.091
Free float (%):	74.1	Target price (A\$):	0.21
Website:	www.resapphealth.com.au	Upside/downside to target price (%):	130.8

### Company description

ResApp Health Limited (RAP) is a digital health company developing smartphone applications for the diagnosis and management of respiratory disease. The technology is based on machine learning algorithms that use cough sounds to diagnose and measure the severity of respiratory conditions without the need for additional hardware. **TECHNOLOGY:** RAP was created to diagnose and measure the severity of a range of chronic and acute diseases such as pneumonia, asthma, bronchiolitis and chronic obstructive pulmonary disease (COPD) using this insight. ResApp has developed new machine-learning algorithms to measure the severity of OSA from a patient's overnight breathing and snoring sounds recorded using a smartphone placed on a bedside table.



SOURCE: MORGANS



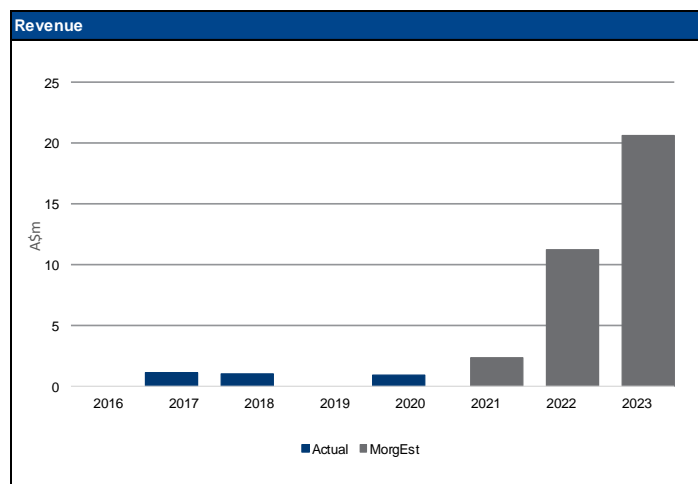
SOURCE: MORGANS

Assumptions	2018A	2019A	2020A	2021F	2022F	2023F
<b>Clinical Revenue</b>						
\$ Fee / test	5.0	5.0	5.0	5.0	5.0	5.0
Patient visits to ED/GP (m)	1,199	1,259	1,322	1,388	1,457	1,530
% present with respiratory	10%	10%	10%	10%	10%	10%
Children/Adult split	25%	25%	35%	45%	45%	45%
Total address market (m)	149.9	157.3	231.3	312.3	327.9	344.3
Market share	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Revenue- Clinical (US\$m)</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Telehealth Revenue</b>						
\$ Fee / test	4.0	4.0	4.0	5.0	5.0	5.5
# Providers	0	0	0	3	6	10
Avg consults p.a. / provider (m)	0	3	4	4	5	5
Patients presenting with problem	30%	30%	30%	30%	30%	30%
Market addressable (children/adults)	25%	25%	25%	25%	25%	25%
Total address market (m)	0.00	0.00	0.00	0.90	2.25	3.75
Weighting within FY (%)	50%	100%	25%	40%	75%	75%
<b>Revenue- Telehealth (US\$m)</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>1.8</b>	<b>8.4</b>	<b>15.5</b>
<b>Revenue- Direct (US\$m)</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Total revenue - ResApp (US\$m)</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>1.8</b>	<b>8.4</b>	<b>15.5</b>
AUDUSD FX	0.75	0.75	0.75	0.75	0.75	0.75
<b>Total revenue - ResApp (A\$m)</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>2.4</b>	<b>11.3</b>	<b>20.6</b>

SOURCE: MORGANS

Timing	Milestone	Outcome
4QCY18	Top-line data from SMARTCOUGH-C-2	Mixed
2QCY19	File de novo premarket submission with FDA for lead pediatric product	Achieved
1QCY19	File for CE Mark in Europe for lead pediatric product	Achieved
1QCY19	SMARTCOUGH-C-2 Croup results	Insufficient data
2QCY19	Additional Australian adult study results	Achieved
3QCY19	CE Mark Clearance for pediatric application	Achieved
3QCY19	CE Mark Clearance for adult application	Achieved
4QCY19	Sleep Apnea study top-line readouts	Achieved
2QCY20	TGA clearance for Adult product	Achieved
2QCY20	FDA clearance for lead pediatric product	Failed
3QCY20	Lodgement of CE Mark submission for OSA	
3QCY20	Covu integration	Achieved
3QCY20	Phenix integration	Achieved
4QCY20	Initial telehealth agreement EU	
2QCY21	US FDA 510(k) submission for SleepCheck	

SOURCE: MORGANS, COMPANY



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Key Drivers
<b>Objective and repeatable</b> - the trend towards medical diagnostics being both objective and repeatable.
<b>Scalability</b> - the low cost nature of the technology makes it easily scaleable for the tele-health providers and primary care physicians
<b>Catalysts</b> - Initial commercialisation and further deals with Telehealth organisations.
<b>Key risks:</b>
<b>Regulatory clearances</b> yet to be received from FDA in the US (largest single potential revenue source).
<b>Clinical</b> - a number of trials are yet to read out - poor results could impact the ability to commercialise the technology.
<b>Funding risk</b> - delays in receiving clearances could impact the commercialisation timelines resulting in further working capital being required.
<b>FX risk</b> - Main source of revenues are expected to be generated in overseas jurisdictions.

SOURCE: MORGANS, COMPANY

Figure 1: Financial summary

Income statement	FY19A	FY20A	FY21F	FY22F	FY23F
Total revenue	0.0	1.0	2.4	11.3	20.6
EBITDA	-7.0	-8.5	-4.7	3.9	13.0
Associate income	0.0	0.0	0.0	0.0	0.0
Depreciation	0.0	0.0	0.0	0.0	0.0
EBITA	-7.3	-8.5	-5.0	3.6	12.7
Amortisation/impairment	0.0	0.0	0.0	0.0	0.0
EBIT	-7.3	-8.5	-5.0	3.6	12.7
Net interest expense	0.1	0.0	0.1	0.1	0.1
Pre-tax profit	-7.2	-8.5	-4.9	3.7	12.9
Income tax expense	0.0	0.0	0.0	0.0	0.0
After-tax profit	-7.2	-8.5	-4.9	3.7	12.9
Minority interests	0.0	0.0	0.0	0.0	0.0
NPAT	-7.2	-8.5	-4.9	3.7	12.9
Significant items	0.0	0.0	0.0	0.0	0.0
NPAT post abnormal	-7.2	-8.5	-4.9	3.7	12.9

Cash flow statement	FY19A	FY20A	FY21F	FY22F	FY23F
EBITDA	-7.0	-8.5	-4.7	3.9	13.0
Change in working capital	1.6	4.3	1.0	-0.7	-0.8
Net interest (pd)/rec	0.1	0.0	0.1	0.1	0.1
Taxes paid	0.0	0.0	0.0	0.0	0.0
Other oper cash items	0.0	0.0	0.0	0.0	0.0
Cash flow from ops (1)	-5.3	-4.2	-3.7	3.2	12.4
Capex (2)	0.0	0.0	0.0	0.0	0.0
Disposals/(acquisitions)	0.0	0.0	0.0	0.0	0.0
Other investing cash flow	0.0	-0.1	0.0	0.0	0.0
Cash flow from investing (3)	0.0	-0.1	0.0	0.0	0.0
Incr/(decr) in equity	7.5	5.0	1.2	1.2	1.2
Incr/(decr) in debt	0.0	0.0	0.0	0.0	0.0
Ordinary dividend paid	0.0	0.0	0.0	0.0	0.0
Preferred dividends (4)	0.0	0.0	0.0	0.0	0.0
Other financing cash flow	0.0	-0.4	0.0	0.0	0.0
Cash flow from fin (5)	7.5	4.6	1.2	1.2	1.2
Forex and disc ops (6)	0.0	0.0	0.0	0.0	0.0
Incr/(decr) cash (1+3+5+6)	2.1	0.3	-2.4	4.5	13.6
Equity FCF (1+2+4)	-5.3	-4.2	-3.7	3.2	12.4

Balance sheet	FY19A	FY20A	FY21F	FY22F	FY23F
Cash & deposits	5.4	5.8	3.1	7.5	20.8
Trade debtors	0.0	0.0	0.1	0.5	0.8
Inventory	0.0	0.0	0.1	0.6	1.0
Other current assets	1.0	0.9	0.9	0.9	0.9
Goodwill	0.0	0.0	0.0	0.0	0.0
Other intangible assets	1.8	1.9	1.6	1.3	1.1
Fixed assets	0.0	0.3	0.3	0.3	0.3
Investments	0.0	0.0	0.0	0.0	0.0
Other assets	0.1	0.0	0.0	0.0	0.0
Total assets	8.3	8.9	6.2	11.0	24.9
Short-term borrowings	0.0	0.0	0.0	0.0	0.0
Trade payables	2.3	1.2	2.3	2.4	2.5
Long-term borrowings	0.0	0.0	0.0	0.0	0.0
Other term liabilities	0.1	0.4	0.4	0.4	0.4
Other liabilities	0.0	0.3	0.3	0.3	0.3
Total liabilities	2.5	1.9	3.0	3.1	3.2
Share capital	29.3	35.9	37.2	38.4	39.7
Other reserves	7.2	1.8	1.8	1.8	1.8
Retained earnings	-30.7	-30.7	-35.8	-32.3	-19.7
Other equity	0.0	0.0	0.0	0.0	0.0
Total equity	5.8	7.0	3.1	7.9	21.7
Minority interest	0.0	0.0	0.0	0.0	0.0
Total shareholders' equity	5.8	7.0	3.1	7.9	21.7
Total liabilities & SE	8.3	8.9	6.2	11.0	24.9

Valuation metrics					
Share price (A\$)	\$0.091		Price Target (A\$)	\$0.21	
DCF valuation inputs					
Rf	3.00%		10-year rate	3.00%	
Rm-Rf	5.00%		Margin	2.0%	
Beta	1.70		Kd	3.50%	
CAPM (Rf+Beta(Rm-Rf))	11.5%		Ke	11.5%	
Equity (E/EV)	100.0%		NPV cash flow (A\$m)	157.3	
Debt (D/EV)	0.0%		Minority interest (A\$m)	0.0	
Interest rate	3.50%		Net debt (A\$m)	-5.8	
Tax rate (t)	30.0%		Investments (A\$m)	0.0	
WACC	11.5%		Equity market value (A\$m)	163.0	
			Diluted no. of shares (m)	768.1	
			DCF valuation	\$0.21	

Multiples	FY19A	FY20A	FY21F	FY22F	FY23F
Enterprise value (A\$m)	75.4	75.7	73.0	77.4	90.7
EV/Sales (x)	na	77.7	30.4	6.9	4.4
EV/EBITDA (x)	-10.7	-8.9	-15.5	20.0	7.0
EV/EBIT (x)	-10.3	-8.9	-14.6	21.4	7.1
PE (x)	-8.7	-8.2	-14.6	19.8	5.7
PEG x)	1.6	1.3	-0.3	0.1	0.0

Per share data	FY19A	FY20A	FY21F	FY22F	FY23F
No. shares	659.0	735.1	768.1	783.1	798.1
EPS (cps)	-1.0	-1.1	-0.6	0.5	1.6
Dividend per share (c)	0.0	0.0	0.0	0.0	0.0
Dividend payout ratio (%)	0.0%	0.0%	0.0%	0.0%	0.0%
Dividend yield (%)	0.0%	0.0%	0.0%	0.0%	0.0%

Growth ratios	FY19A	FY20A	FY21F	FY22F	FY23F
Sales growth	na	na	147%	369%	83%
Operating cost growth	-6%	35%	-25%	4%	4%
EBITDA growth	-9%	-21%	45%	182%	235%
EBITA growth	-10%	-17%	41%	172%	252%
EBIT growth	-10%	-17%	41%	172%	252%
NPAT growth	-11%	-18%	43%	175%	250%
Normalised EPS growth	-5%	-6%	44%	174%	244%

Operating performance	FY19A	FY20A	FY21F	FY22F	FY23F
Asset turnover (%)	0.0	2.8	8.0	32.7	28.7
EBITDA margin (%)	na	-875.7	-196.6	34.5	63.0
EBIT margin (%)	na	-875.7	-207.9	32.1	61.7
Net profit margin (%)	na	-875.7	-203.0	32.6	62.4
Return on net assets (%)	-105.6	-20.5	-90.2	-119.4	-126.8
Net debt (A\$m)	-5.4	-5.8	-3.1	-7.5	-20.8
Net debt/equity (%)	-93.0	-82.5	-100.0	-94.3	-95.6
Net interest/EBIT cover (x)		n/a			
Invested capital	2.0	5.6	1.0	-0.3	0.2
ROIC (%)	-355.2	-153.5	-510.7	-1369.7	6913.5

Internal liquidity	FY19A	FY20A	FY21F	FY22F	FY23F
Current ratio (x)	2.8	4.6	1.6	3.5	8.5
Receivables turnover (x)	0.0		48.7	40.1	31.5
Payables turnover (x)	4.6	5.5	4.1	3.1	3.1

SOURCE: MORGANS RESEARCH, COMPANY

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