PainChek
Intelligent Pain Assessment

Company Presentation
March 2019

PainChek Ltd
ASX:PCK

Our "Why"

Our purpose is to give a **voice to people** who **cannot verbalise** their pain

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The PainChek® Solution

A secure, validated, **medical device** in the form of a mobile app

Uses existing smartphone and tablet hardware[1]

Artificial Intelligence (AI) technology to analyze facial expressions indicative of pain in real time

[1] Edge devices (smartphones and tablets) are being adopted extensively within Aged Care and Primary Care health services to capture patient medical records and resident data

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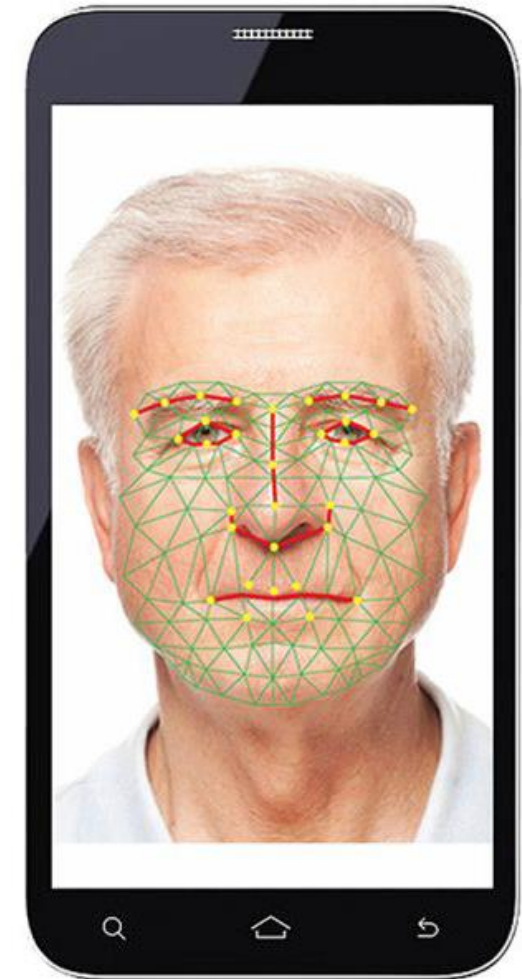
The PainChek® App

- **Automated facial pain analysis:**
  - 3 second video of a patient face
  - recognises 9 micro-facial expressions that indicate pain

- **Digital questionnaire checklist:**
  - guide the carer in other pain assessment factors e.g. movement, vocalization
  - leading questions with Yes/No decisions

- **Automated pain assessment score:**
  - based on 42 test points

- **Documented electronically via cloud backend:**
  - pain trend line and monitoring of treatment
  - integrated into patient medical records
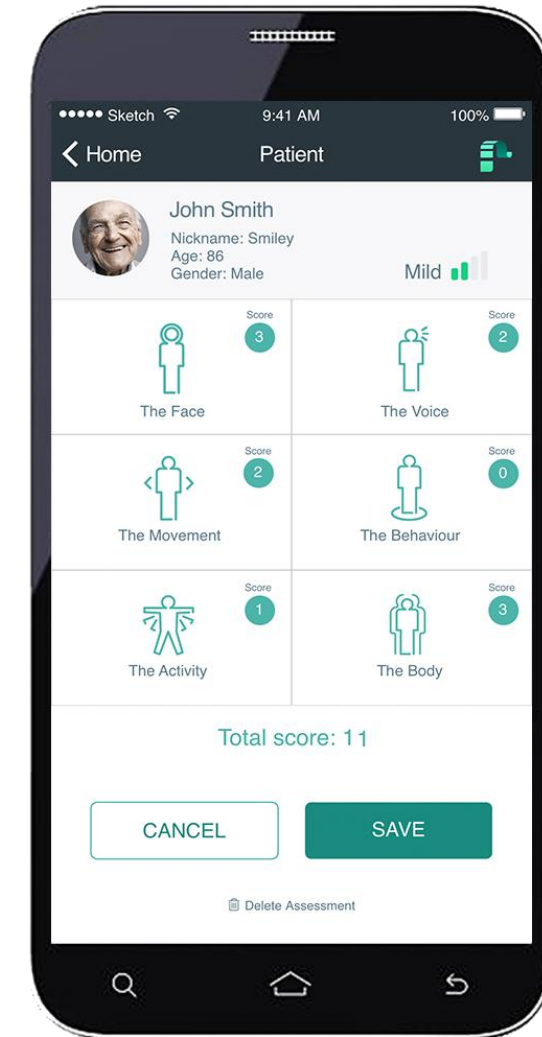
PainChek® Highlights

Proven business model

Accelerating sales in Residential Aged Care (RAC) including Allity, Top 5 RAC

Partnering with 3rd Party Software Suppliers for local and international market expansion

Core team in place for global market execution

New Business Opportunities

Dementia App extending into Palliative Care, GP, Pharmacy and Home Care Settings

Anticipate Kids App clinical trial with recognized children's hospital Q1 19

PainChek becoming standard of care for pain assessment and monitoring
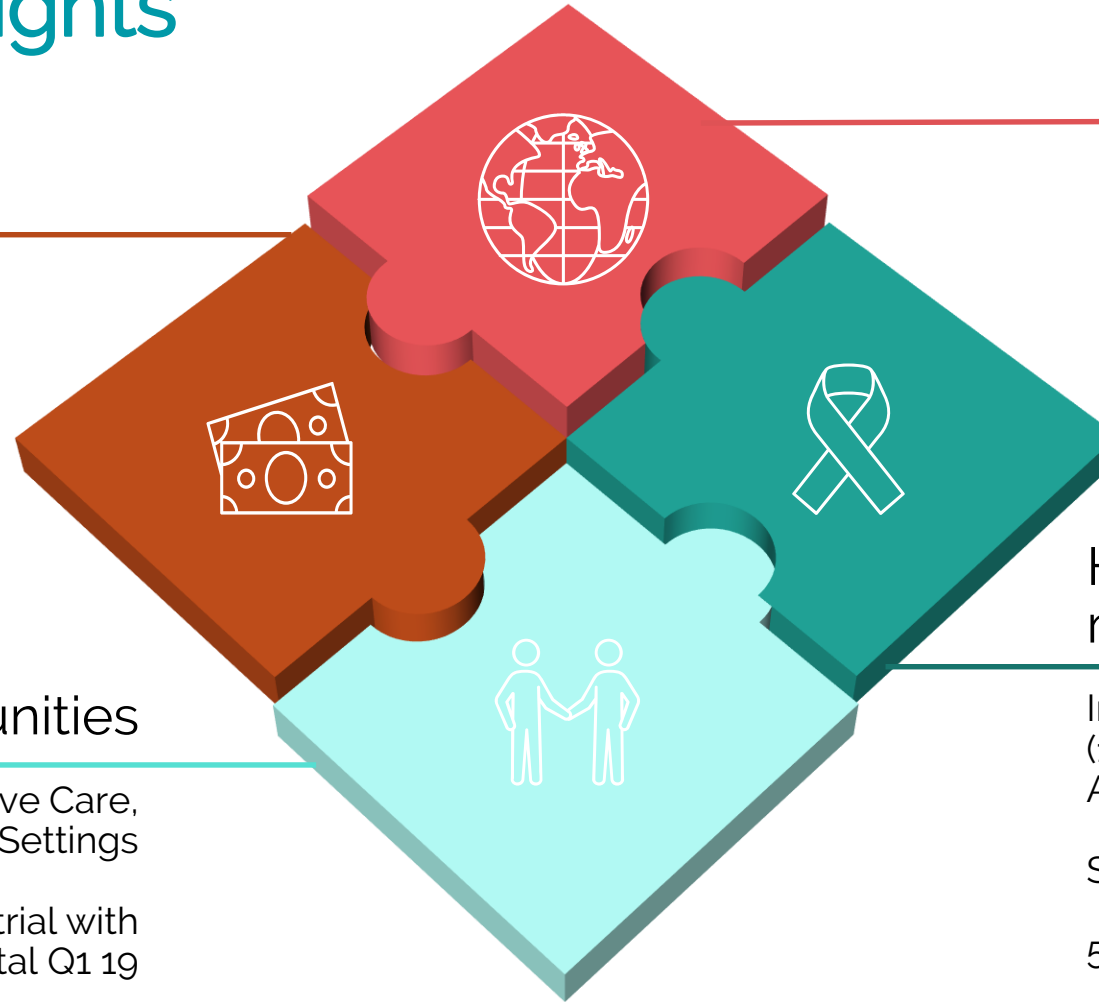
Large initial global market opportunities

47M people living with dementia worldwide - CAGR 3%

400M children aged between 0-3 years old

Broad range of carers in health care professional and consumer segments

High clinical relevance and market acceptance

Improving current clinical practice (18,000+ PCK clinical assessments in Australian RAC by Feb 2019)

Support of industry and clinical experts

5 peer reviewed publications

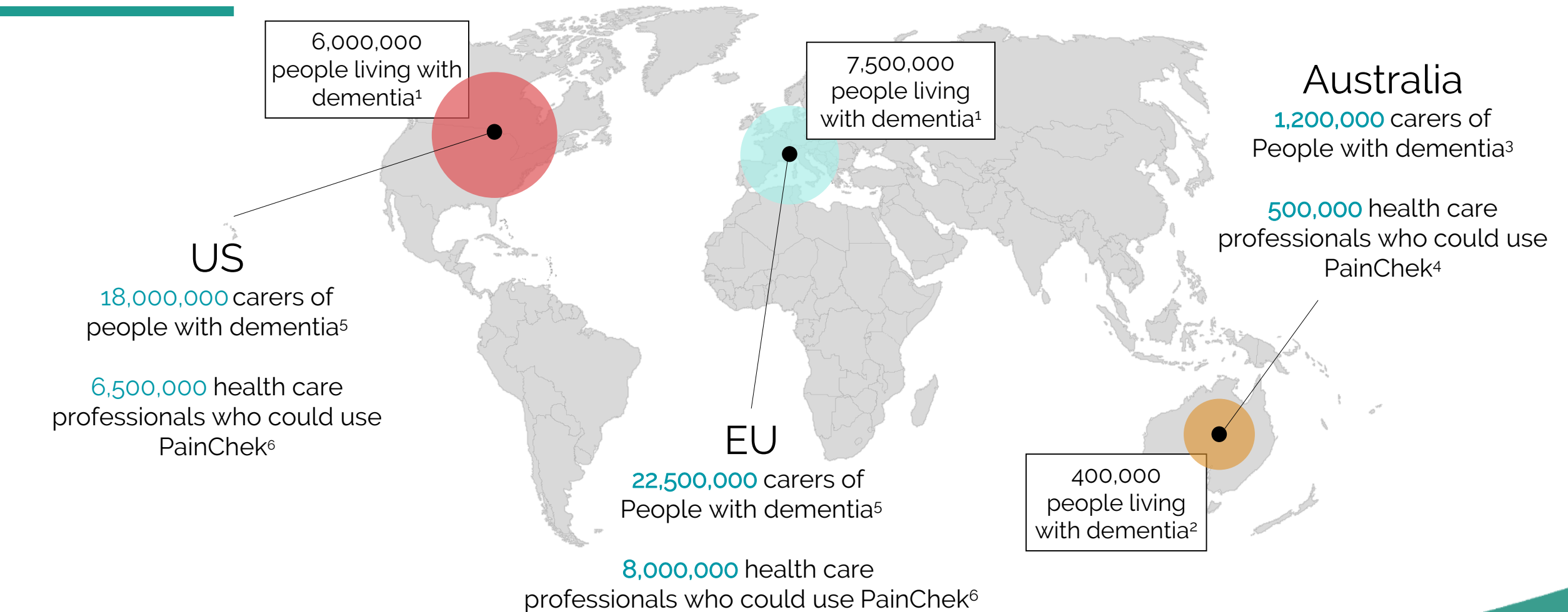CE Mark and TGA regulatory clearance in place - FDA in progress

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Our Initial Target Markets

Carers of non-communicative people with pain:

- Dementia sufferers
- Pre-verbal children

Children, Parents & Grandparents

Nannies, BabysittersDay Care Staff

Doctors

Nurses

Day Care Centres

Carers of people who cannot self-report their pain

GP, Outpatient, First Aid Clinics

Allied Health

Hospitals

First Responder Fire & Ambulance

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PainChek® Initial Market Opportunity – Carers of People Living with Dementia

6,000,000 people living with dementia[1]

7,500,000 people living with dementia[1]

Australia

1,200,000 carers of People with dementia[3]

500,000 health care professionals who could use PainChek[4]

US

18,000,000 carers of people with dementia[5]

6,500,000 health care professionals who could use PainChek[6]

EU

22,500,000 carers of People with dementia[5]

8,000,000 health care professionals who could use PainChek[6]

400,000 people living with dementia[2]

[1] World Alzheimer Report 2016
[2] Alzheimer's Australia key facts and statistics 2017
[3] ,[4] Australian health care statistics
[5] Estimated based on Australian dementia data ratios
[6] Estimated based on Australian population ratios

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New Market Opportunity: Pre-verbal Children's App

- Children's App developed with facial recognition capability
- Clinical trial sites identified with major Australian children's hospital
- Trials scheduled to commence Q1/Q2 2109
- Product launch scheduled for Q4 2019

Carers

of pre-verbal children

Mums & Dads
Grandparents
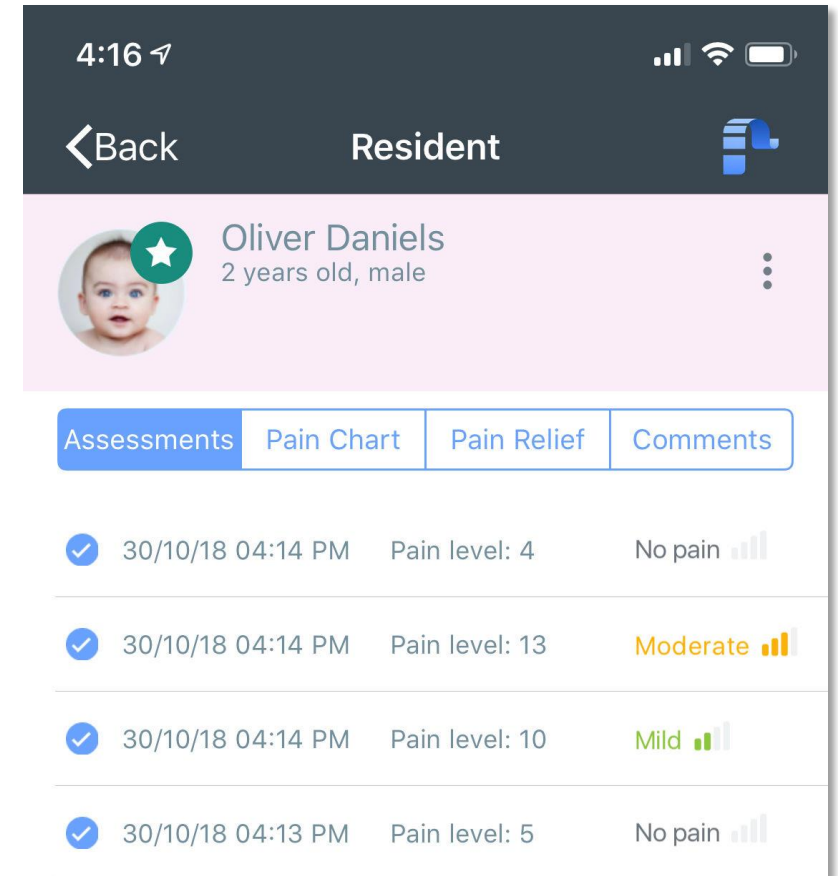**Health care professionals**
Nannies
Babysitters
Day care workers

~ 130 million[1]

Births per year in world

~ 1.25 million[2]

0-3 year olds in Australia

~ total of 400 million

0-3 year olds worldwide

4:16

Back   **Resident**

Oliver Daniels
2 years old, male

| Assessments | Pain Chart | Pain Relief | Comments |

30/10/18 04:14 PM	Pain level: 4	No pain
30/10/18 04:14 PM	Pain level: 13	Moderate
30/10/18 04:14 PM	Pain level: 10	Mild
30/10/18 04:13 PM	Pain level: 5	No pain

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Philip Daffas
CEO & Managing Director, MBA, BSc

Philip is a highly accomplished global business leader and people manager with an international career spanning more than 25 years with leading blue-chip healthcare corporates. Philip has held senior global leadership positions with Cochlear and Roche in Europe, US and Australia.

Prof. Jeff Hughes
Chief Scientific Officer PhD, MPS

Jeff is a professor in the School of Pharmacy, Curtin University in Western Australia. Jeff served as the Head of the School of Pharmacy of Curtin University, from March 2009 to May 2014. Jeff is one of the team who developed the PainChek® concept.

Mustafa Atee
Research Scientist MPS, PhD (candidate)

Mustafa is a clinical, community and academic pharmacist and he has managed a number of community pharmacies in Western Australia. The PainChek® concept was born out of his PhD research. His PhD research has been supported by both a grant and an academic scholarship from Alzheimer's Australia.

Scott Robertson
Chief Technology Officer, MBA, B.Eng. (Comp. Systems)

Scott has over 25 years' experience designing, deploying and managing enterprise software systems. He mostly worked in private enterprises, where adapting to changing client needs, markets directions and government regulations were paramount to commercial success.

David Allsopp
Head of Business Development ANZ

David has more than 15 years' experience in the account management, relationship management and business development space. Ten of those spent in the aged care sector with market leaders Healthstrong and Mirus. He is renowned for establishing trusting, transparent and long-standing relationships in the healthcare space.

Dawn Kerr
Senior Clinical Specialist

Dawn has 16 years' nursing experience. She completed her nurse training at West of Scotland University in Glasgow, where she graduated with a BSc in Adult Nursing. Dawn has an extensive knowledge in the area of pain management nursing. Patient orientated in providing care, Dawn believes pain management is of paramount importance in any care facility.

THE TEAM

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The Challenge of Managing Pain for People with Dementia

Pain is common

- Up to 80% of people in aged care experience chronic pain[1]

- More than 50% of people in Australian aged care have dementia[2]

- 47 Million globally living with Dementia[3] growing at 3% p.a.

But pain often goes undetected and untreated[1]

- Pain is difficult to assess

- Tools to assess pain are often not used or use subjective rating scales

- Adverse impact on quality of care, operational efficiency and compliance

1 Aged Care Awareness
2 Australian Govt. Dept. of Health data at 30 June 2015
3 World Alzheimer's report 2016

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Evolution of Pain Assessments in Dementia

2002 — AGS

2003

2004

2017 — PainChek ®
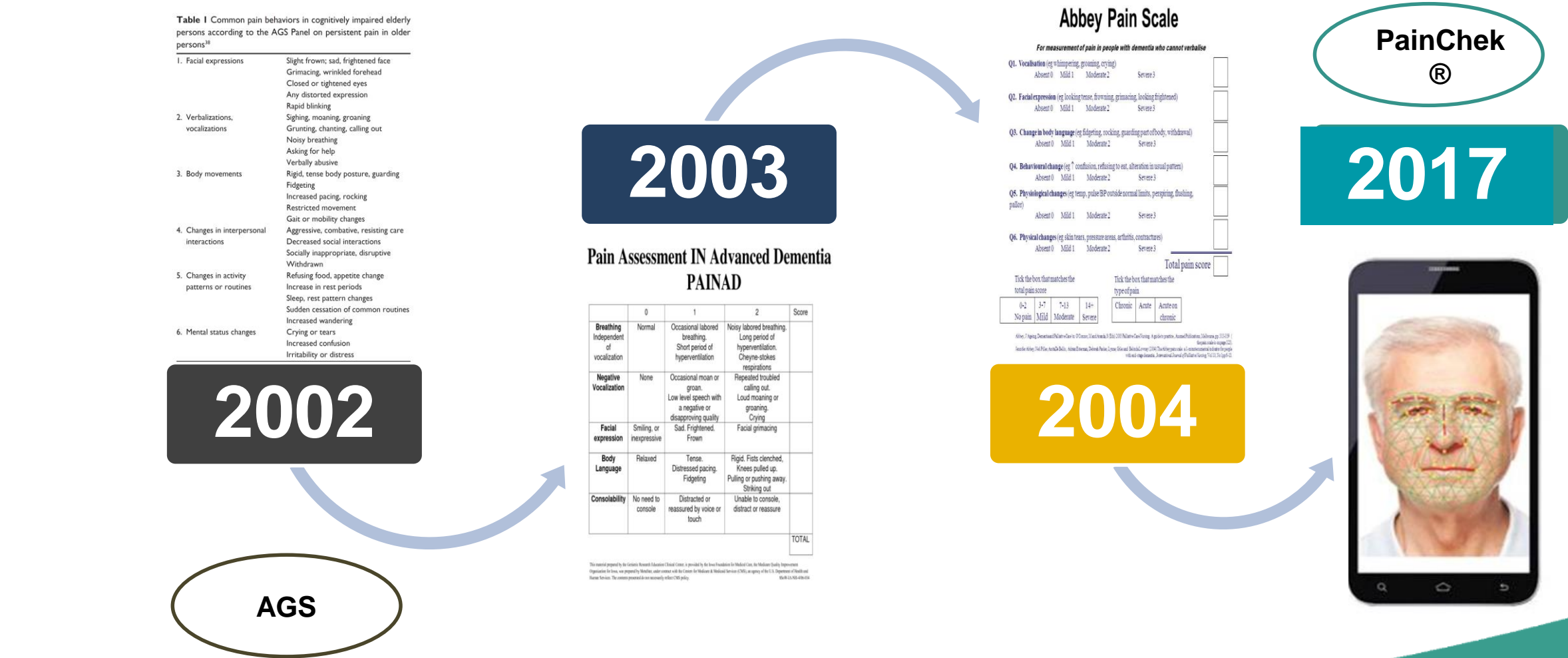
PainChek® Benefits Impacts All Key Stakeholders

Clinical Utility

- Improve quality of life
- Reduce rates and severity of behavioural and psychological symptoms
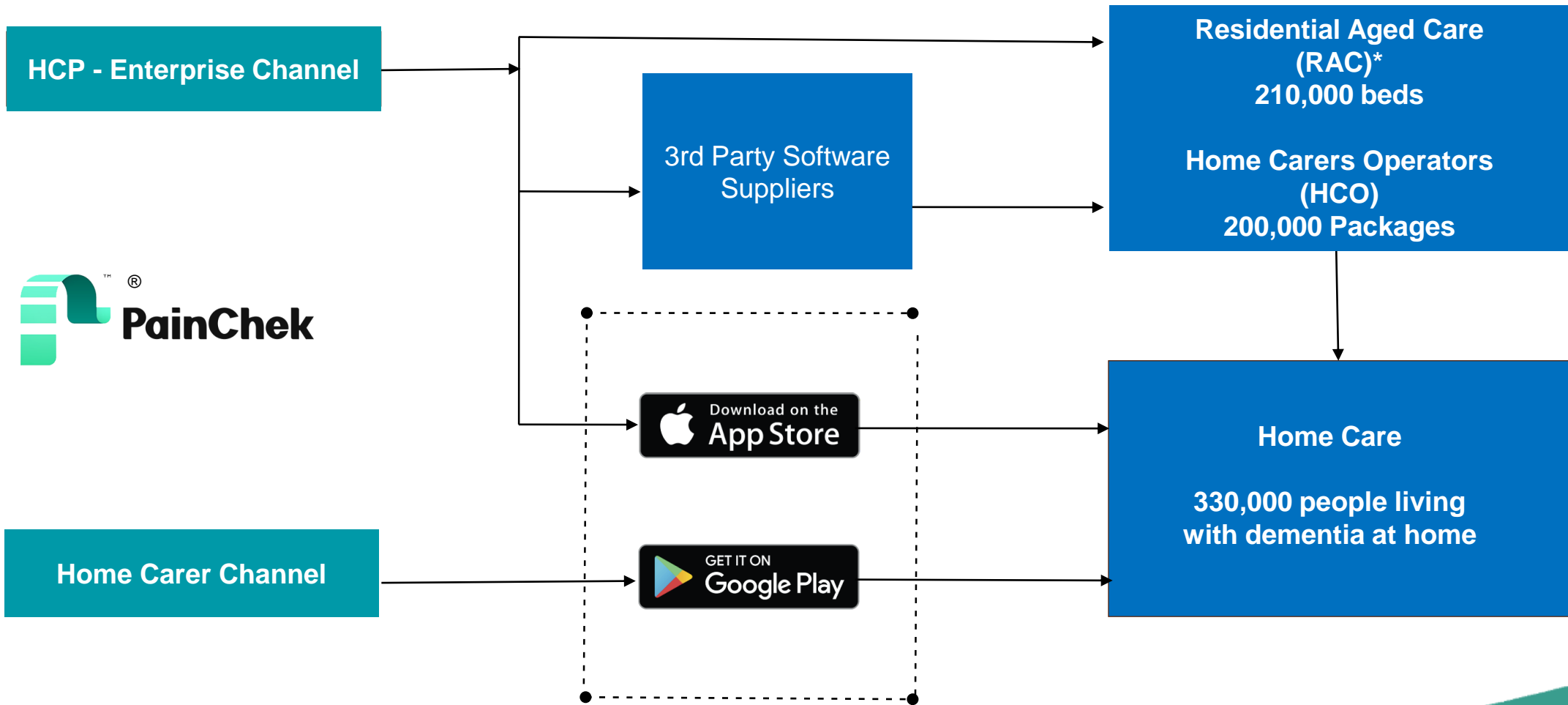- Reduce rates of incorrectly prescribed antipsychotics

Cost Benefit

- Point of Care testing
- Automated documentation
- Eliminate double handling of data
- Reduce labour time to focus on care

Quality & Funding

- Addresses pain assessment requirements for accreditation standard 2.8
- Accurate and validated tool as evidence base for Aged Care Funding Instrument (ACFI) including ADLs & CHC items 3, 4a, 4b

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PainChek® App Market Entry Strategy - Australia

HCP - Enterprise Channel

PainChek

Home Carer Channel

3rd Party Software Suppliers

Download on the App Store

GET IT ON Google Play

Residential Aged Care (RAC)*
210,000 beds

Home Carers Operators (HCO)
200,000 Packages

Home Care

330,000 people living with dementia at home

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3ʳᵈ Party Software Partners Integration Update

Australian market partners:

- Health Metrics and LeeCare go live target 4/19
- New partner agreements in negotiation – targeting 6/19
- Total partner agreements will cover more than 100,000 Australian Residential Aged Care beds

Overseas markets partners:

- UK market leading software provider in negotiation – targeting 6/19
- NZ and Singapore agreements in process

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PainChek® Gaining Strong Market Momentum

Residential Aged Care Clients (Under Contract) — Contract Clients and Contract RACS from Jan-18 to Feb-19

Contracted Number of Residential Aged Care Beds (based on contracts signed as of month end) — CNRB from Jan-18 to Feb-19

Clinical PainChek Assessments (Cumulative from 1 Jan 2018) — Cumulative Assessments from Jan-18 to Feb-19
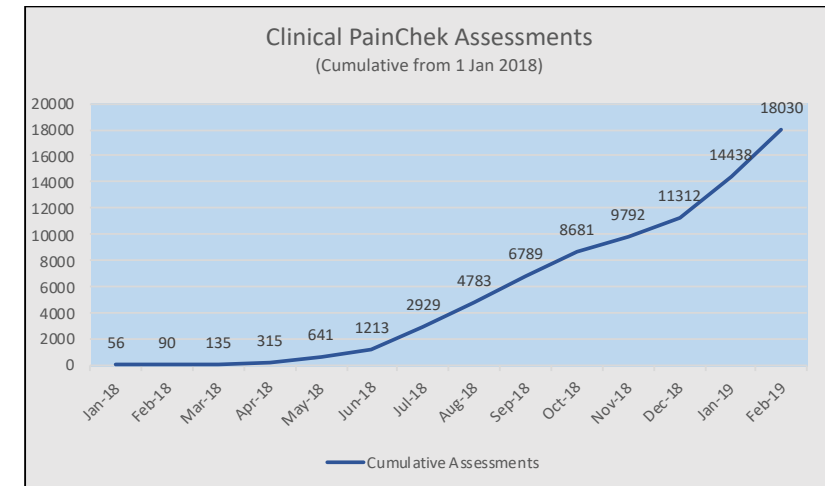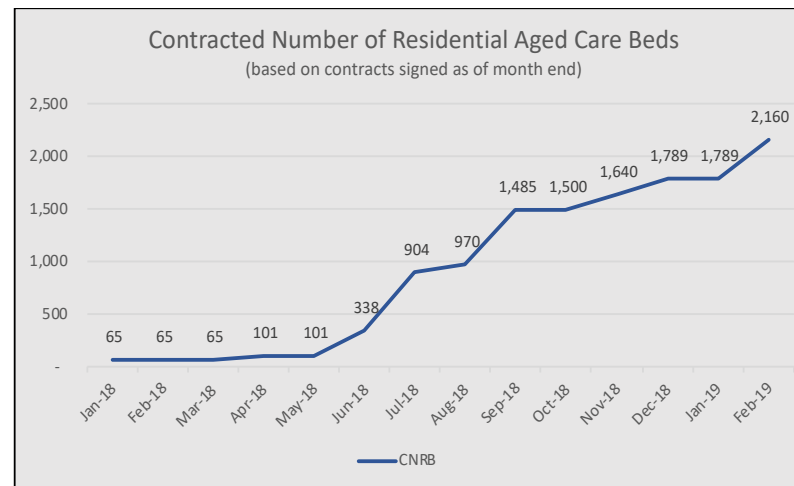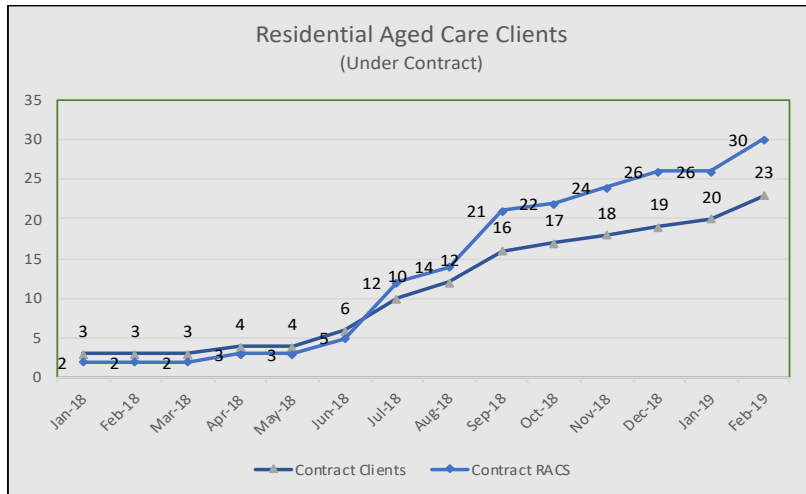
Currently engaged with trials and pre-contract negotiations with a significant number of Australian RAC providers

Revenue Model: The PainChek monthly Average Revenue per Licensed Bed (ARLB) across the RAC customers based on the agreements signed to date is $5 per month, and the Average Revenue per Active Resident (ARAR) is in the range of $10 per month based on actual resident usage.

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Our Clients Include:

Partners and Supporters

PainChek® Global Entry Market Strategy

Current regulatory clearance provides access for up to 40% of the global market.

1 Australia 2017/18

2 International Expansion 2019

3 US entry 2020

Goal: Established sales, business model and clinical utility data

Focus: RAC, HCP, Primary Care and Consumer markets

Distribution: Direct Operation established and local partners

Regulatory: TGA clearance received in 2017

Global market access: 3-4%

Goal: Expand into international markets using Australian experience

Focus: Europe (500 Million people) and other CE Mark countries

Distribution: Establish overseas presence and engage with local distributors (including 3rd party software partners overseas operations).

Regulatory: CE mark clearance 2017

Global market access: 35-40%

Goal: Extend into US market post FDA clearance and predicate for Children App

Focus: RAC,HCP and Consumer segments

Distribution: Establish US presence and local partners

Regulatory: FDA de Novo clearance projected in 2019/2020

Global market access: 70%

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PainChek® Patent Status

- Patent clearance for PCT filing received in August 2016
- National filings commenced Feb 2017 in all key global markets;
  - Europe
  - US
  - Australia
  - China
  - Japan

PainChek® Key Milestones

Dementia App

01 — Q4 2017
First commercial sales achieved

02 — Q4 2018
20 RAC Providers , 2000 beds under contract and 10,0000 clinical assessments completed

03 — Q1 2019
FDA de Novo clearance pre-submission completed
Home Care package sales commenced Australia

04 — Q2 2019
integrations completed with 3 Australian Software Suppliers and 1 UK strategic partner in place
Consumer App commercialized in Australia

05 — Q3 & Q4 2019
Launch into UK market & other overseas
Goal is 20,000 contracted RAC beds by end Q4 2019
Extend into new market sectors (Palliative, GP and Acute care)

06 — 2020
Broader international expansion - Europe and Asia
FDA clearance and US entry

Pre-Verbal Children Apps

2018
Completion of children video library, data model and algorithm

Q1 2019
Completion of Children's App for clinical trial
Clinical study agreement with Children's hospital in Australia

Q2 2019
Clinical studies and validation work commenced in leading Children's hospital in Australia

Q2-Q4 2019
Progress reports on clinical trial and validation studies

Q4 2019
Target for publications and TGA/CE mark clearance
launch into Australian market with HCP's
Prepare documentation for FDA clearance submission

2020
Broaden application to home care/family members
Launch into International markets – Europe/Asia
Submit for FDA clearance

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PainChek® Board

- ## John Murray, Chair
25 years in tech VC, multiple board roles including aged care

- ## Philip Daffas, MD
Senior global healthcare executive : Global market experience with Roche Diagnostics and Cochlear

- ## Ross Harricks, NED
Senior global medical device exec with Nucleus and healthcare NED

- ## Adam Davey, NED
Corporate finance executive with extensive capital markets experience

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PainChek® Financial Update

- Current shares on issue: 839,384,587

- Market cap undiluted at 4.2c = $35m

- Unlisted Options on issue: 175,448,155

- Cash at bank: 31 December 2018: $2.3m

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