Shared Value Awards 2020

Project of the Year

Attachments:

CancerAid Coach Program

There is a compelling need for insurers to deliver improved cancer patient support, helping patients to return to life and wellness sooner.

The Background

Cancer Council Australia estimates new cases of cancer will grow by approximately 8.7% to 150,000 diagnoses p.a. This represents a direct healthcare cost of $4.6 billion to the Australian healthcare system. Cancer survivorship is thankfully improving, however healthy return to life and wellness following cancer treatment is a growing problem.

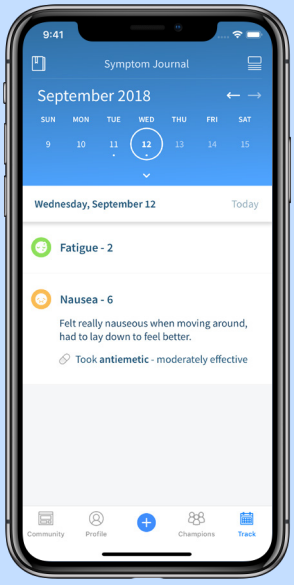
Patient Activation

There is a growing body of literature showing how engaged and activated patients; patients who "participate" in their own health by actively managing their own healthcare, achieve better health outcomes (Greene et al. Health Affairs. 2015).

Independent studies have found patient activation can help to reduce patient fatigue associated with cancer treatment, improve patient chemotherapy completion rates and lower levels of patient fear and anxiety associated with cancer. Furthermore, recent studies have revealed that patient activation has improved return to work times by 11% (de Boer et al. 2015), allowed patients to tolerate chemotherapy treatment for longer, and provided significantly greater health-related quality of life than patients who do not actively log their symptoms (Basch et al. 2016). This was further corroborated by studies that observed a 31% decrease in per-patient annual hospital costs (Greene et al. 2013) and longer life spans for metastatic/advanced stage cancer patients (Basch et al. 2017).

The CancerAid Initiative

CancerAid provides cancer patients with digital support and behavioural change therapy to achieve improved patient health outcomes during cancer treatment. CancerAid is an adjunct to a cancer patient's treatment plan (e.g. chemotherapy, surgery) and is delivered as a digital curriculum, including evidence-based educational video content, periodic health coaching calls and accountability activities for symptom tracking, diet, physical activity, sleep and mental health. The digital delivery of these combined interventions, known as a digital therapeutic once clinical efficacy is established, makes continuous patient engagement possible and, in partnerships with intended customers, encourages behavioural change at scale that can result in reduced hospital readmissions, increased return-to-work rates and improved medication adherence.



Patients who participate in their own health achieve better health outcomes

CancerAid

CancerAid Coach Program

The 6 week digital health curriculum

The CancerAid digital curriculum and coaching provides a personalised support program to improve the participation of patient's in their own care.

Program Introduction

- Audio call
- Weekly Consent
- Positive Reinforcements

In App Accountability

Physical Symptoms

- Webpage educations
- Log symptoms
- Framework to manage symptoms
- Patient progress reports
- Educational videos
- ClinicianLink

In App Accountability

Activity & Exercise

- Exercise benefits
- Educational videos
- CDM program access
- ClinicianLink

In App Accountability

Diet and Nutrition

- General principles
- Stable weight
- Body measurements
- Educational videos

In App Accountability

Mindfulness & Sleep

- iOS bedtime
- Sleep Hygiene
- Sleep Diary
- ClinicianLink notes
- Educational videos

In App Accountability

Survivorship

- Psycho-oncology principles
- Guidance post-program
- Progress Summary

Post Program Assessment

Results

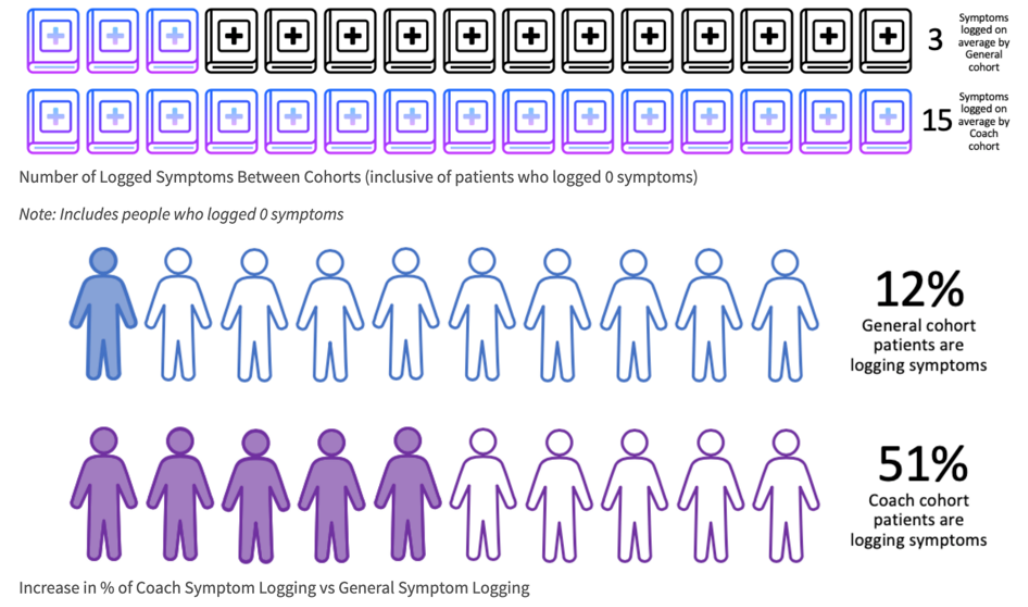
CancerAid is focussed on tangible, outcome-focussed results supported by clinical evidence.

This program provides patients with an earlier chance to return-to-good work and get their life back on track following a cancer diagnosis.

Following 5 months of implementation, 38 patients have participated in the CancerAid coach program.

Summary of Results

- 14 program completions
- 24 participating within program
- Excellent patient satisfaction
- Strong customer testimonials
- 51% of patients tracking symptoms with app (4.25x increase over baseline users)



CancerAid coach cohort vs general non coached cohort reveals:

- **5 x** increase in number of symptoms logged in coached cohort
- **4.25 x** increase in number of patients using symptom tracker

Customer Feedback:

"Very good program, the articles on the app are amazing, there is a lot of rubbish on the internet, knowing the articles are vetted is very good. The personal contact and communication is amazing. It is really unexpected this came out of my income protection claim, very good to get this."

"Being an ear, listening to the rants of a cancer patient is nice. Feel like cant speak to anyone about the cancer, speaking to an outsider is helpful. Getting information about what is available outside the cancer program I am going through is very helpful. We are focussed on treatment and don't know whats out there."

100%

NPS score for patients who have completed program thus far

100%

CSAT score for patients who have completed program

CancerAid

Empowering cancer patients to achieve improved outcomes

Meets

AIA

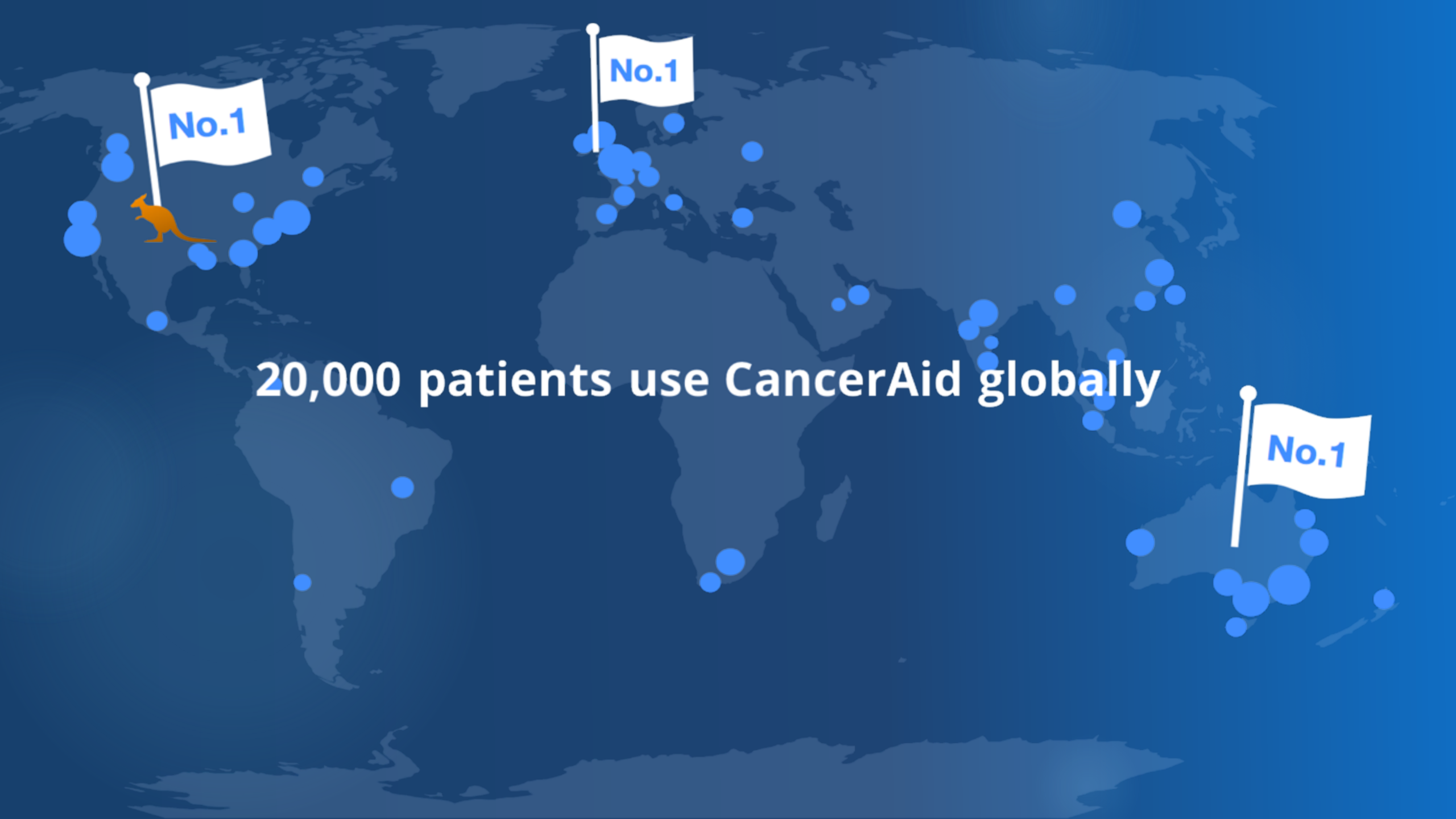
Better together

CancerAid helps patients missing support

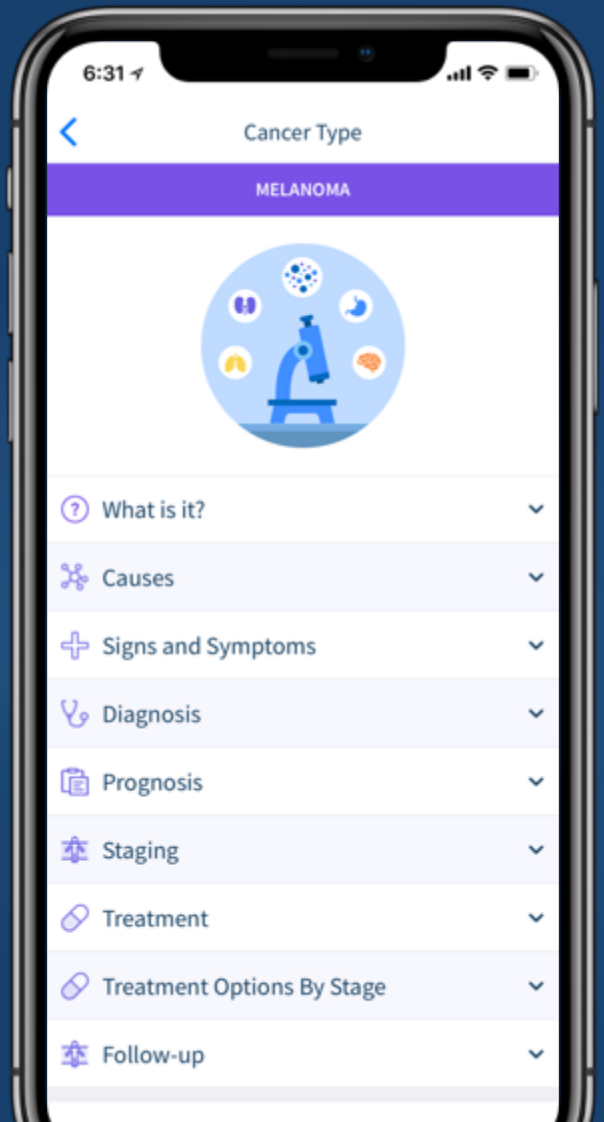
Right Systems

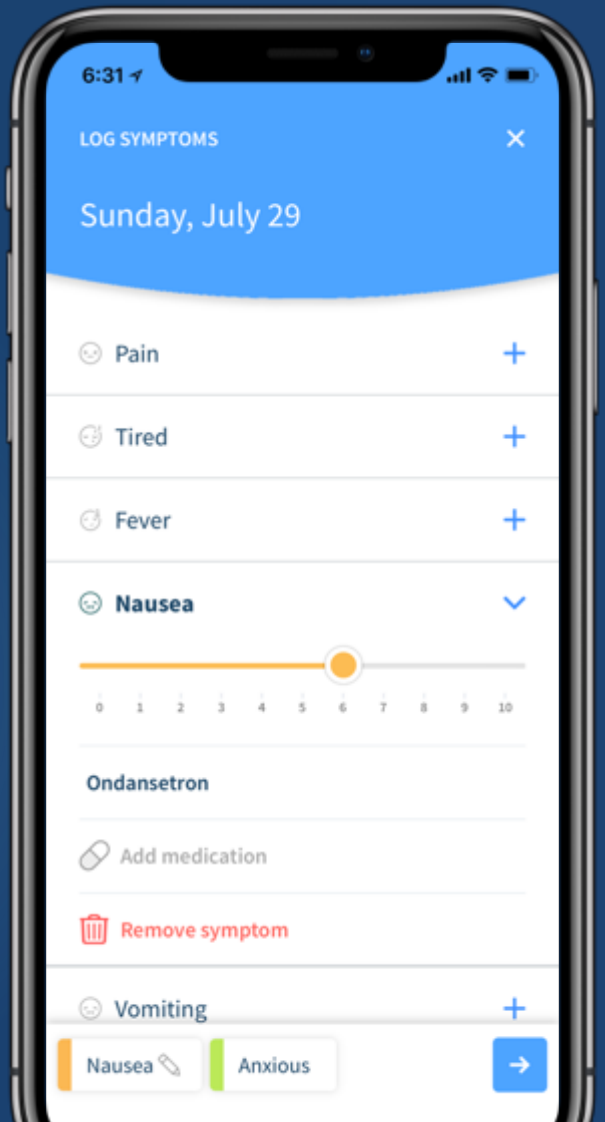
Best Outcomes

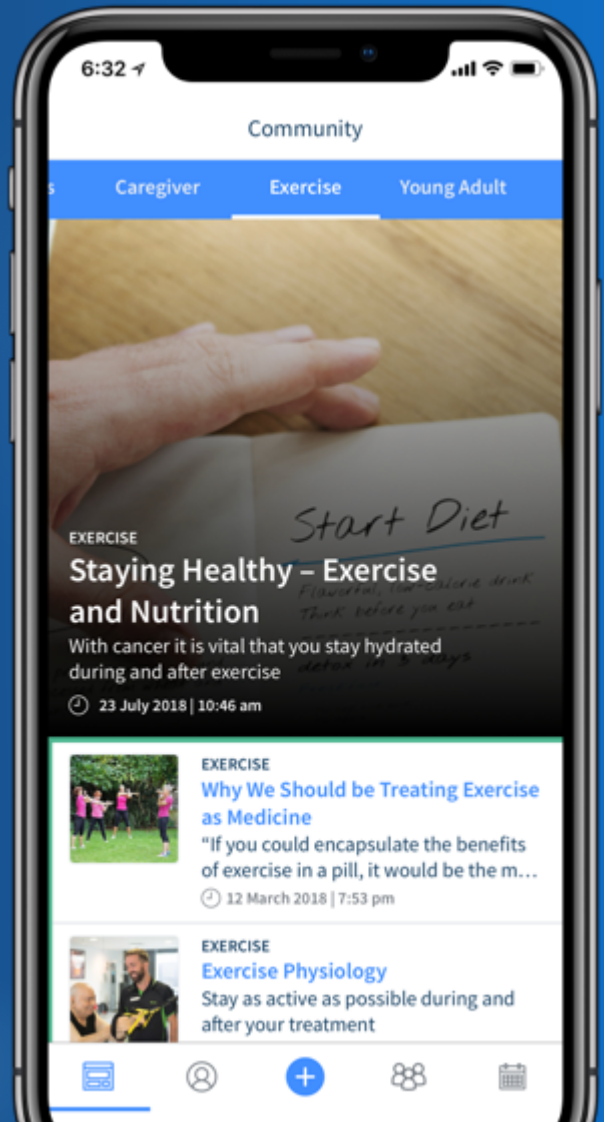
CancerAid


No.1
No.1
No.1
20,000 patients use CancerAid globally

Free CancerAid App







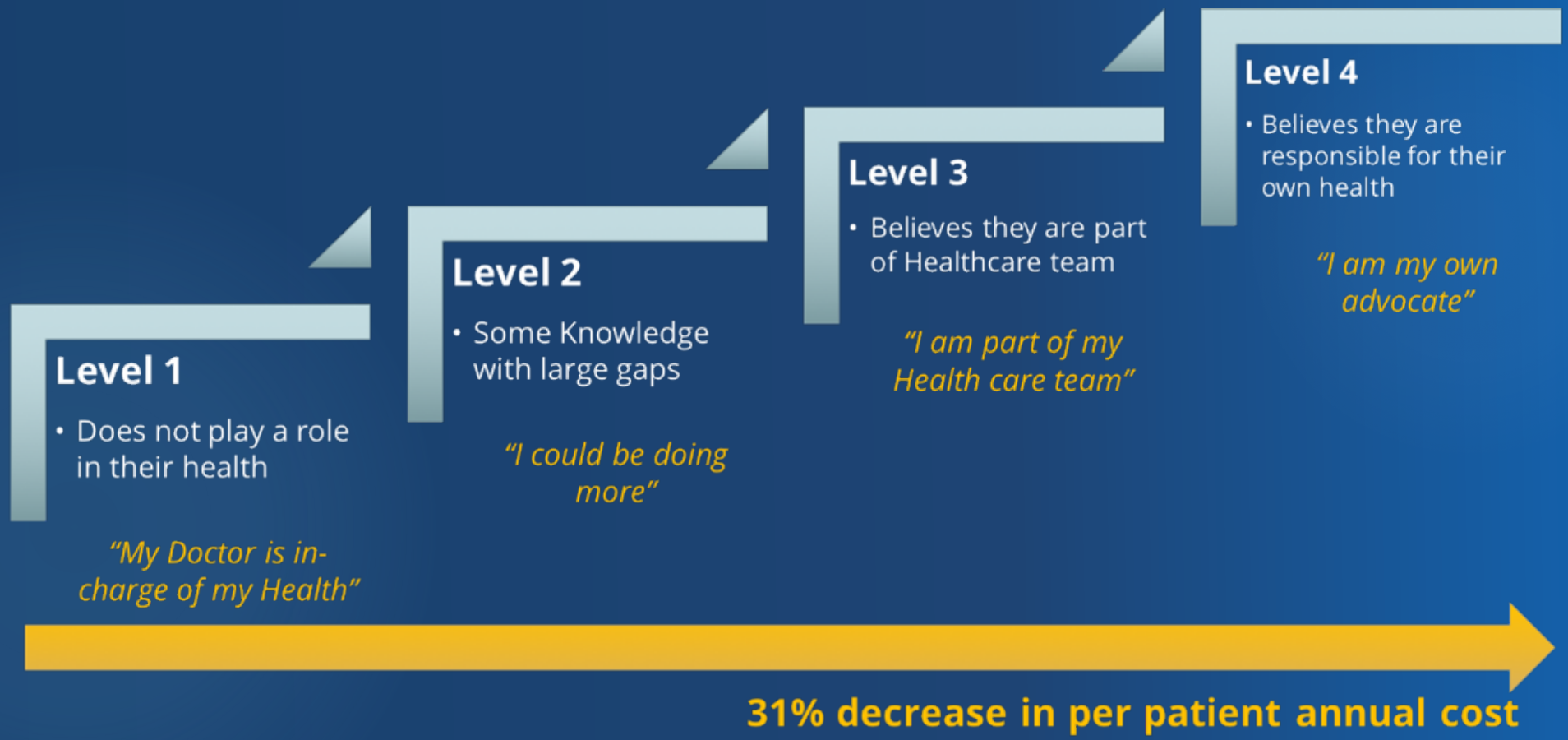
Participatory Health

Participatory Health

Improved Health Outcomes
& Lower Costs

CancerAid

Participatory Health Requires Patient Activation



CancerAid

Behaviour Change is Complex

npj | Digital Medicine

www.nature.com/npjdigitalmed

Corrected: Author correction

REVIEW ARTICLE OPEN

Impact of remote patient monitoring on clinical outcomes: an updated meta-analysis of randomized controlled trials

Benjamin Noah[1,2], Michelle S. Keller[1,2,3], Sasan Mosadeghi[4], Libby Stein[1,2], Sunny Johl[1,2], Sean Delshad[1,2], Vartan C. Tashjian[1,2,5], Daniel Lew[1,2,5], James T. Kwan[1,2], Alma Jusufagic[1,2,3] and Brennan M. R. Spiegel[1,2,3,5,6]

Despite growing interest in remote patient monitoring, limited evidence exists to substantiate claims of its ability to improve outcomes. Our aim was to evaluate randomized controlled trials (RCTs) that assess the effects of using wearable biosensors (e.g. activity trackers) for remote patient monitoring on clinical outcomes. We expanded upon prior reviews by assessing effectiveness

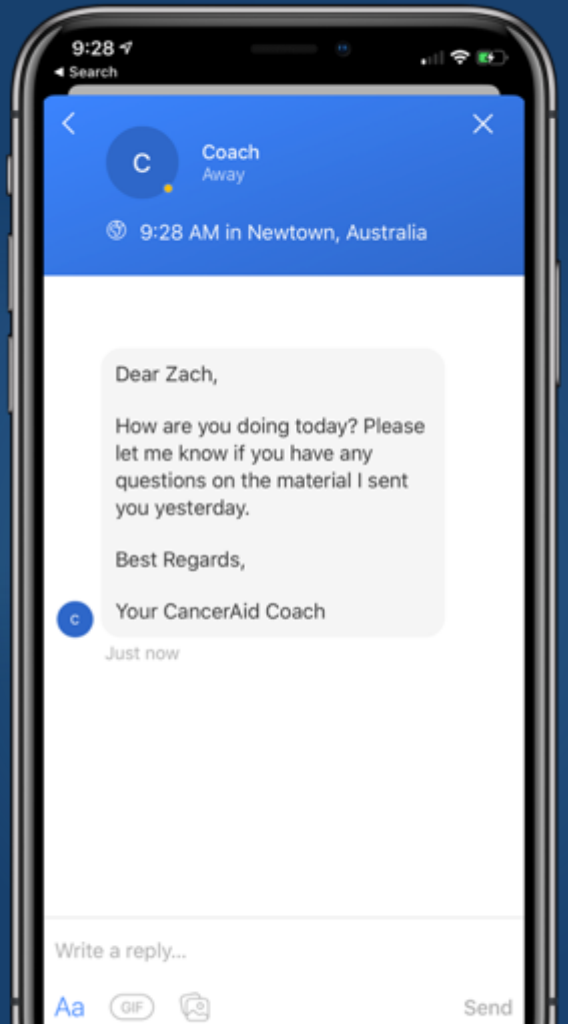
"Interventions based on personalised coaching were most successful whereas cash incentives and automated text messages were ineffective"

Noah et al., *Nature Digital Medicine* 2018

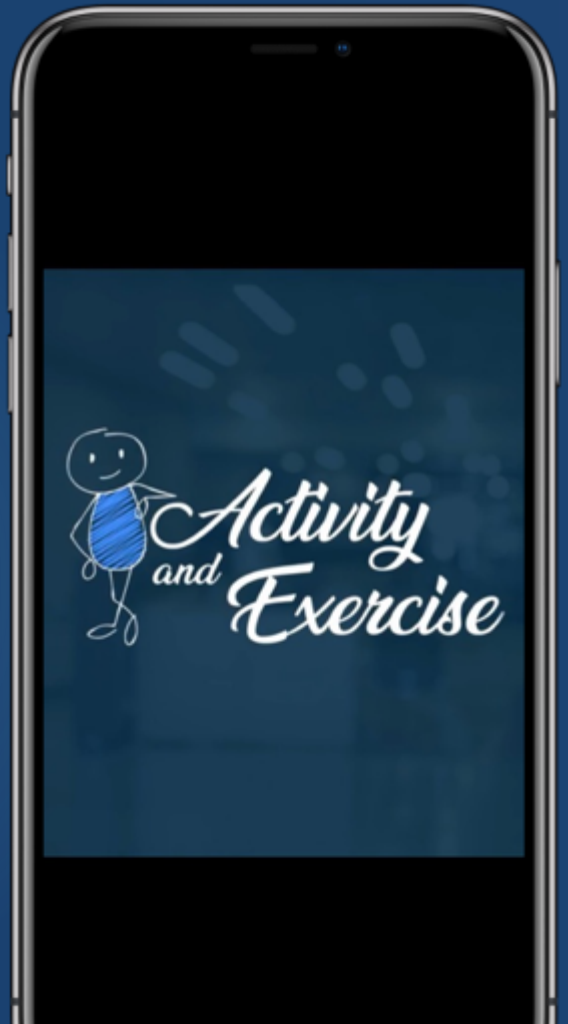
CancerAid

CancerAid Coach Program

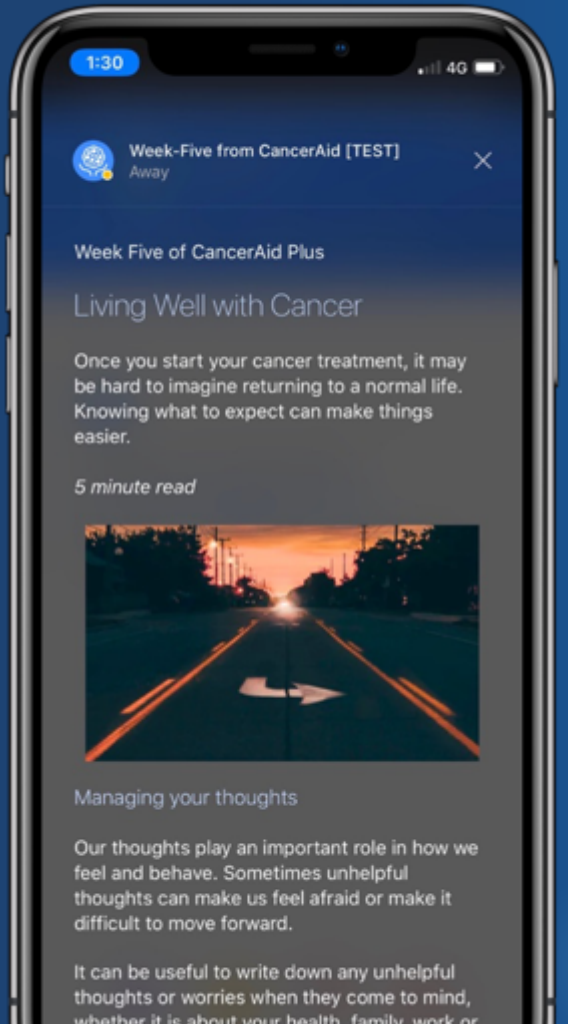
Health Coach



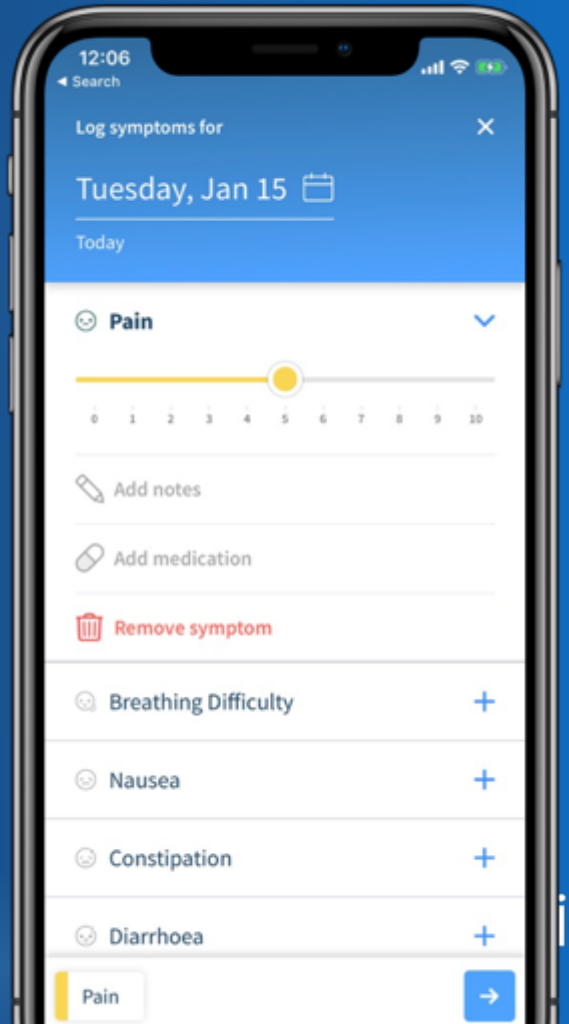
Educational Videos



Wellbeing Content



Organiser



CancerAid Patient Support Program

Start

Week 1

Program Introduction

- Introductory Video
- First Call Scheduling

Week 2

Physical Symptoms

- Educational Video
- In-App Education
- Health Coach Call
- Accountability SMS
- CancerAid App Symptom Tracker Integration

Week 3

Activity & Exercise

- Educational Video
- In-App Education
- Progress SMS
- Activity & Exercise Community

Week 4

Diet & Nutrition

- Educational Video
- In-App Education
- Health Coach Call
- Accountability SMS
- CancerAid App Food Journal Integration

Week 5

Mindfulness & Sleep

- Educational Video
- In-App Education
- Progress SMS
- Activity & Exercise Community

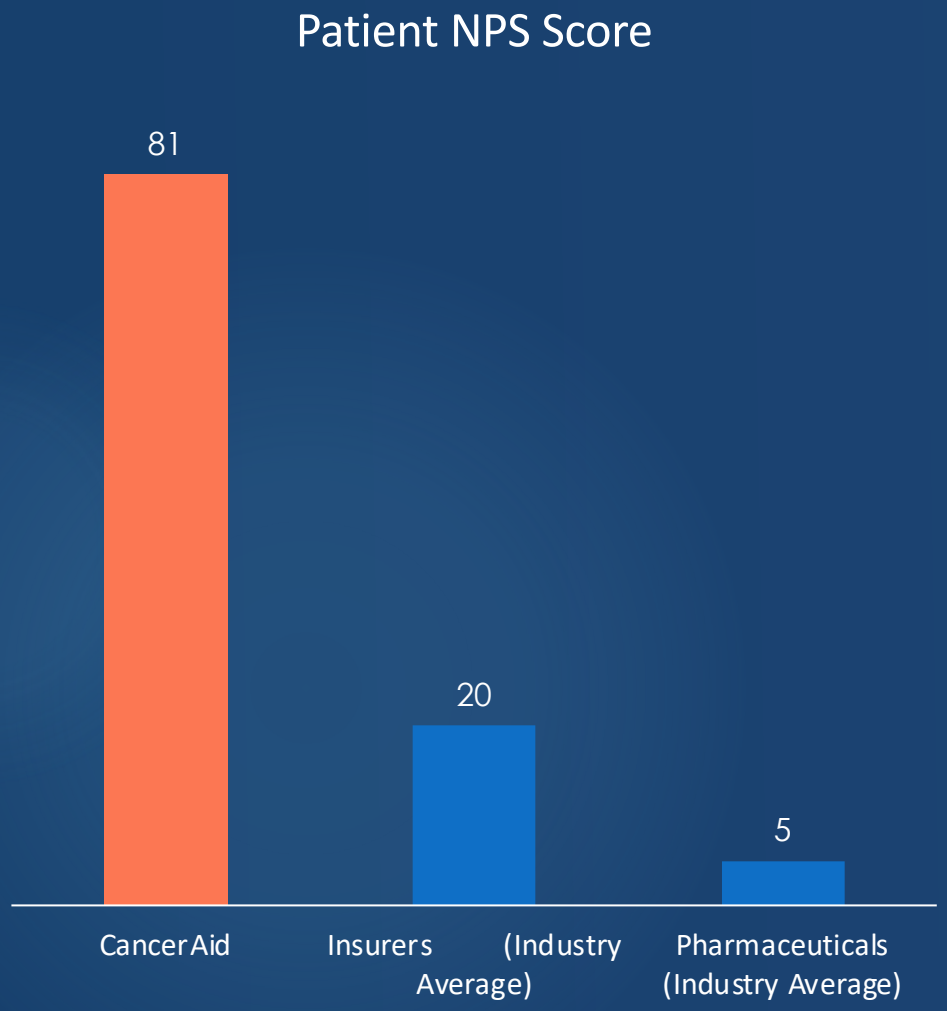
Week 6

Survivorship

- Educational Video
- In-App Education
- Health Coach Call
- Accountability SMS
- Program Completion Feedback

CancerAid

Patients love CancerAid



"Very good program, the articles on the app are amazing, there is a lot of rubbish on the internet, knowing the articles are vetted is very good. The personal contact and communication is amazing. It is really unexpected this came out of my income protection claim, very good to get this."

Program Participant

"I talk about this program all the time. I tell everyone how beneficial this program has been and cant believe this has come from my super fund. everything that is provided in the program is great (calls, content, emails). I havent experienced anything negative so far. The research stuff really backs up everything said on the phone. I really liked the rehab referrals as well".

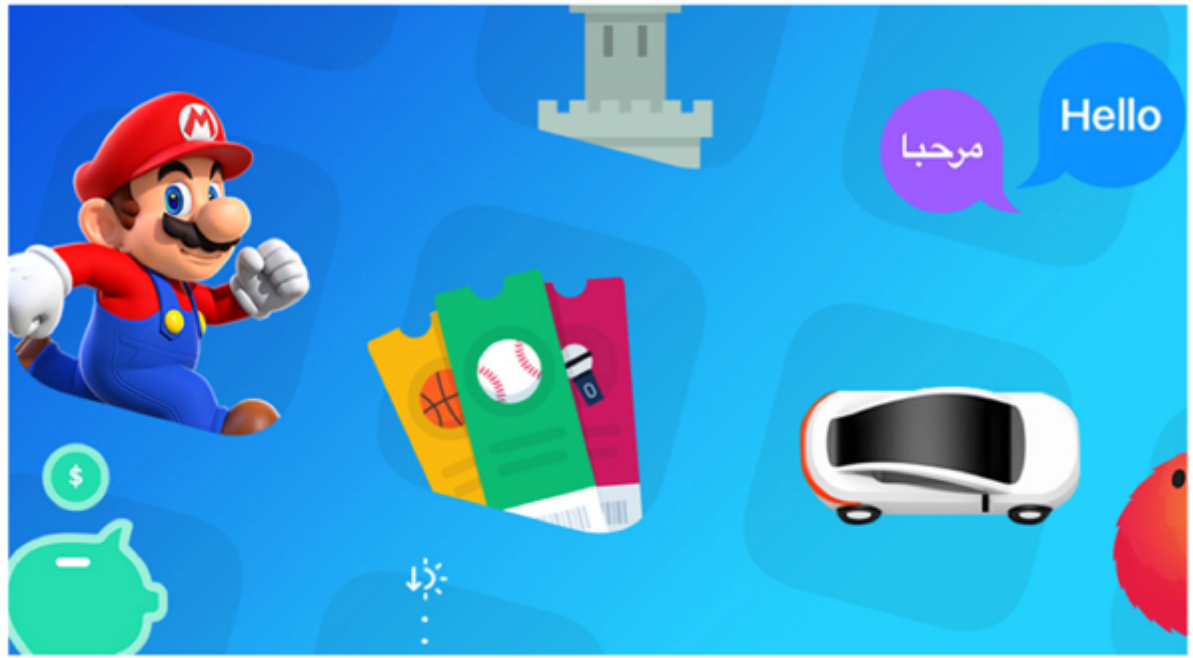
Program Participant

Apple Flagship Health App

Apple Press Release 2017

Apple highlights success of CancerAid, in its App Store

APPLE has marked a major milestone for its App Store by highlighting the success of an Aussie-built app used by cancer sufferers.



Apple highlights success of CancerAid, in its App Store

APPLE has marked a major milestone for its App Store by highlighting the success of an Aussie-built app used by cancer sufferers.


Talent
Unleashed
Awards 2017
Best Startup Creating Social Impact Award 2017
"CancerAid is an impressive and well thought out application to help cancer patients. I especially like how this app helps the patient ('Hero') and gives them a way to have a wide variety of support and knowledge throughout this difficult journey."
Sir Richard Branson
Founder, Virgin Group


SHARK TANK
CancerAid
CancerAid
Community
The Number 1 Cancer App
on the Apple Store
Fast-becoming the
community
affected

CancerAid

Download on the App Store

GET IT ON Google Play

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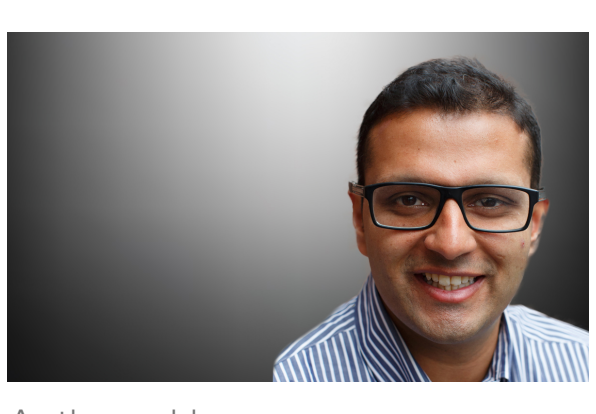
18 February 2019

Return to work after cancer: a key health outcome



Authored by
RAGHAV MURALI-GANESH
JONNY LO
ZACHARY TAN
KIERAN BALLURKAR
DANIEL TIAN
SIMONIE FOX
DAVID BEAUMONT

Issue 6 / 18 February 2019

IN Australia, the incidence of cancer diagnoses is increasing owing to improved patient awareness, screening programs and better diagnostics – in 2018, 138 321 new cases were diagnosed, an approximate threefold increase from incidence rates in 1982. The past decade has ushered dramatic improvements in personalised, biological and technical expertise in cancer therapy that has resulted in significant declines in cancer mortality rates. Due to a rising cancer incidence and a reduced mortality, the number of Australians surviving cancer has grown substantially.

Cancer diagnoses in working-age people are becoming more common, with almost half of adult cancer survivors aged less than 65 years (here and here). Despite progress in treatment, cancer survivors must live with the adverse effects of treatment over the medium to long term. These effects, whether physical or emotional, can negatively affect all aspects of their lives, including their capacity to maintain a professional activity. Statistics from the United Kingdom indicate that one in four people face poor health or disability after treatment for cancer, one in six patients living with and beyond cancer care experience chronic fatigue, one in eight live with mental health problems, and one in ten people live with moderate to severe pain. Cancer has a negative impact on employment patterns, with studies estimating that between 10% and 38% of patients do not return to work after a successful treatment for cancer (here, here and here).

While many cancer survivors do well in general terms, a significant proportion continue to experience medical or psychological problems. For working-age survivors, the effects of cancer or its treatments may cause impairments that can lead to a prolonged absence from work, diminished prospects of obtaining or retaining employment, or ultimately, early retirement. Overall, cancer survivors are 1.4 times more likely to be unemployed than healthy controls, although with differing rates depending on the diagnosis. At 1–2 years after cancer treatment, approximately 40% of survivors fail to return to work (here, here and here), with numerous others underemployed or with significant limitations on their work during that intervening period. While some of these survivors will have a decreased ability to work, many are both willing and able to return to work following treatment and without residual disabilities.

For cancer survivors, employment positively affects their quality of life, self-esteem and personal finances. In addition, employment provides a distraction from the focus on their illness, as well as providing a sense of normalcy, purpose and identity. Conversely, unemployment and long term absenteeism from work are harmful to mental health and physical recovery. Not being able to work is also a loss for the employer and society at large from reduced productivity.

Why don't cancer survivors return to work when they would be expected to? Vocational rehabilitation is defined as "whatever helps someone with a health problem to stay at, return to and remain in work". While this may sound vague and difficult to implement, it tells a fundamental truth: every case is different and must be managed accordingly. But in its simplicity there are also answers: the barriers to return to work may be to do with the individual, health care professionals, or employers. Successful return to work is about identifying and removing barriers.

A key reason why health care professionals, particularly doctors, neglect return to work is traditional training in the (bio)medical model. At its heart, the medical model is reductionist – clinical practice is aimed at identification and treatment of pathology, recovery is absence of pathology. In the past, with significantly higher mortality rates in cancer, this model has dominated. As survival has improved, this view has persisted, but the reasons for work disability can only be understood and managed by the biopsychosocial model – the reasons people don't return to work are far less likely to be physical ("bio") and far more likely to be psychological or social (including the work context).

By way of illustration, a brief clinical vignette illustrates two barriers not related to the individual. One of the authors (DB, an occupational physician) was asked to assess and advise on prognosis for return to work for a 30-year-old woman who had been absent from work for 12 months with a diagnosis of Hodgkin's lymphoma. After the assessment, he spoke to the oncologist, who said: "I had no idea she wasn't back at work – she's been in remission for 6 months". He hadn't asked her about work because he didn't see it as a clinical outcome. The employer was reluctant to refer for assessment because of the emotive response many people have to a cancer diagnosis.

Only relatively recently has the training of doctors included the biopsychosocial model. Far more training in this is provided to allied health professionals. To remove individual patient barriers involves the skill sets of all members of the clinical team, and tailored multidisciplinary rehabilitation including, when necessary, physiotherapy, occupational therapy and psychology.

Improving return to work outcomes in cancer patients

Since many working-age cancer survivors are both willing and able to return to work, it is important that health care providers properly assess and assist patients in accessing programs that support their return to work process. A Cochrane Review of randomised controlled trials has shown that multidisciplinary interventions (including career counselling, patient education and counselling, biofeedback-assisted behavioural training and/or physical exercise) improve the rate of cancer survivors returning to work. But when performed in isolation, these interventions have shown no improvement to care as usual, which demonstrates the many facets of returning to work.

Coordination between clinicians, other health care providers and, most importantly, patients is essential for delivering a multidisciplinary intervention. However, this can be challenging to implement and difficult for patients to follow through with. For example, the most convenient setting for multidisciplinary teams is in the hospital setting, but this is far less convenient for many patients who are no longer receiving active curative treatment and are ready to engage in return-to-work programs.

Outside of hospital settings, training to use existing and validated tools for assessing work capacities are not readily available to community health care providers involved in the return to work process. Novel models, including the CancerAid Coach Program, which delivers evidence-based interventions digitally and remotely, may address some of these challenges.

An emerging but increasingly common barrier for getting cancer survivors to return to work is that clinicians, especially at a tertiary level, have little information, directive or incentivisation to make decisions about sustainable return to work. In a study by Leenson and colleagues, the combination of occupational counselling and physical exercise promoted significantly higher return to work rates for a group of cancer survivors (86% at 2 years) over unmatched historical estimates (66% at 18 months). The concluding remarks from this group, and in keeping with the available Cochrane Review, strongly suggest a multidisciplinary approach, ideally involving an occupational physician, with education and exercise as key determinants in promoting the improved return to work outcomes for patients after a cancer diagnosis.

What is the way forward?

We need a specific driver for clinicians — return to work should be a key health outcome measure from every clinical intervention. Not just in a cancer diagnosis, but especially so, because of the increasingly good clinical outcomes that are not being matched by return to work (and full engagement in life) outcomes. The Royal Australasian College of Physicians' *Consensus statement on the health benefits of good work* is a catalyst for this goal, since many peak health care bodies (particularly the medical Colleges) are signatories to the principles, including that:

> "The provision of good work is a key determinant of the health and wellbeing of employees, their families and broader society."

A collaborative approach can improve clinician training, and education can demystify this area with simple first steps, including asking the question "what is your job?" and introducing the expectation of successful outcomes including return to work early. Understanding that remission does not necessarily equal return to function, and the role of biopsychosocial barriers, enables the skill sets of all members of the multidisciplinary team to be recognised and valued.

Authors bios to come:

Dr Raghav Murali-Ganesh is the co-Founder and President of CancerAid, the number one cancer app in Australia, the US and the UK. It has won the Emerging Company of the year 2017 (AusBiotech/Johnson and Johnson), Best Global Startup (Sir Richard Branson), Best Startup creating social impact (Steve Wozniak) and the EY Accelerating Entrepreneur award. Dr Murali-Ganesh is a radiation oncologist.

Jonny Lo is a medical doctor who completed his PhD in medical technology and basic science with the University of Melbourne. He has worked closely with several innovative health-tech start-ups and is currently Program Manager of ANDHealth, Australia's only dedicated program to support the commercialisation of clinically validated digital health technologies in Australia.

Dr Zachary Tan is a medical doctor and Chief Strategy Officer at CancerAid, a leading Australian health technology start-up. He is passionate about the intersection of clinical medicine, digital health and health policy in improving healthcare outcomes for patients on a broad scale.

Kieran Ballurkar is a postgraduate medical student at the University of Sydney and a graduate in applied and pure mathematics, currently working as a data analyst at CancerAid. He is interested in applying analytic techniques to healthcare data to discover insights and new ways of promoting health.

Daniel Tian is a combined degree science and medicine student, majoring in computer science at the University of Sydney.

Simonie Fox is the Group Strategy Manager – Rehabilitation/Claims at AIA Australia. She started her career as a registered nurse and has over 20 years' experience in occupational rehabilitation with a special interest in oncology. She is passionate about achieving better health outcomes for income protection claimants who have cancer and to support them to return to wellness and work.

Dr David Beaumont is an occupational physician and director of Fit For Work Ltd in New Zealand. He is a past president of the Australasian Faculty of Occupational and Environmental Medicine and lead for the Faculty team which developed the Consensus Statement on the Health Benefits of Good Work.

3 thoughts on "Return to work after cancer: a key health outcome"

1. ***Anonymous*** says:

   February 20, 2019 at 9:41 am
   Very succinct and well researched article , as a Medical practitioner , it's indeed true that the " sickness disability " connotation of Cancer inhibits people returning to work. Thank you for sharing this

2. ***Anonymous*** says:

   February 20, 2019 at 9:40 am
   I agree with the above that employers also need education. Pre-diagnosis employers are often not accommodating of the reduced cognitive processing speeds, memory and fatigue elements that are often the residual limitations of a cancer diagnosis and its treatment and this can result in added anxiety, sense of vulnerability and stress to the individual trying to return to or remain at work.

3. ***Anonymous*** says:

   February 18, 2019 at 10:11 am
   Employers also need education. I am aware that patients in remission are faced with reluctance from employers who do not want to risk employing a person who might need to work part time or to be asking for absences.
   When a patient returns to work the attitude of their employer to requests for flexible hours can have a very negative effect on the patient's wellbeing. Hard-nosed employers can expect all or nothing.

Feasibility and acceptability of a digital and telephone health coaching program to promote improved return to work outcomes in a cohort of Australian cancer patients.

Kieran Ballurkar[1,2], Raghav Murali-Ganesh[1,2], Jocelyn Gulliver[1], Daniel Tian[1,2], Jonathon Lo[1,4], Timothy Atkins[1], Zachary Tan[1,2,3], Kate Tynan[5], Simonie Fox[5]

[1] CancerAid, Sydney, NSW, Australia
[2] Faculty of Medicine and Health, University of Sydney, Sydney, New South Wales, Australia
[3] Faculty of Medicine, The University of Queensland, Brisbane, Queensland, Australia
[4] Faculty of Medicine, University of Melbourne, Melbourne, Victoria, Australia
[5] AIA Australia Limited

BACKGROUND

With better cancer treatments subsequently leading to improved survivorship, more working-aged people are now cancer survivors. Such patients often live with physical and psychological burdens following their cancer and treatments, and failure to return to work after treatment is common.[1,2] However, employment is known to improve quality of life, mental health and self-esteem in cancer patients.[3,4] Multidisciplinary interventions are superior to isolated interventions to encourage return to work (RTW) in this group.[5] We therefore developed a novel coaching program as an adjunct to regular clinical care to encourage RTW.

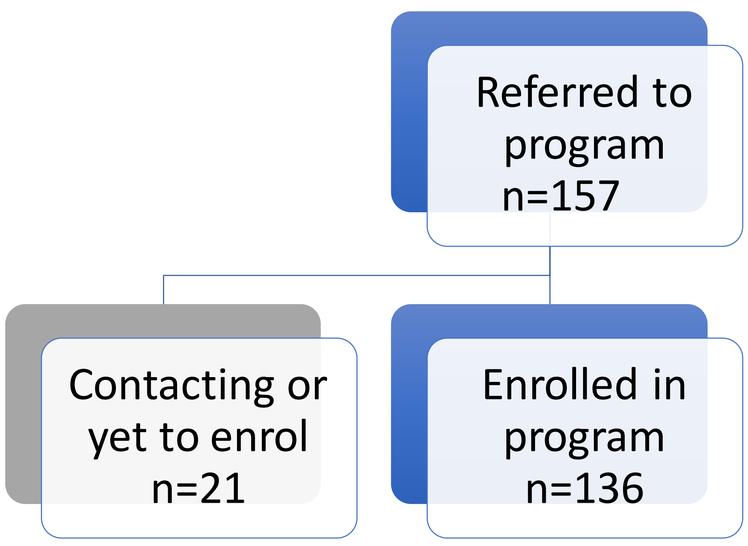


Figure 1: Participant recruitment and program completion over 12 months.

AIM

To evaluate the feasibility and acceptability of a telephone- and digital-based coaching program aimed at improving RTW outcomes for cancer patients with income protection.

METHODS

This is a single-arm retrospective evaluation of cancer patients recruited from an Australian life insurance company (AIA Australia) over 12 months. The 6-week coaching program involved 3 scheduled and personalised telephone calls, intermittent supportive text messages, voluntary onboarding to the CancerAid™ smartphone application, and the provision of five video- and written-based educational modules delivered via email or smartphone.

For feasibility we measured referral to completion rates, phone call completion rates and a statistical analysis on claims cost reduction. For acceptability we measured net promoter score (NPS), customer satisfaction score (CSAT) and qualitative patient feedback.

Figure 2: The CancerAid app with (L to R) cancer information, symptom logging, monitoring by caregivers, and curated cancer news and stories.

RESULTS

157 patients were referred to the program, and 136 (86.6%) were successfully contacted and agreed to participate (mean age 48.7, SD 12.8). 105 (75.2%) completed or were completing the program, and 83.3% of all scheduled coaching calls occurred. Our industry partner AIA Australia supports the reduction in insurance claims costs. The mean NPS and CSAT scores were 72.9 and 97.3. Participants enjoyed dialogues with their coaches and universally found the program to be a useful adjunct to their existing care.

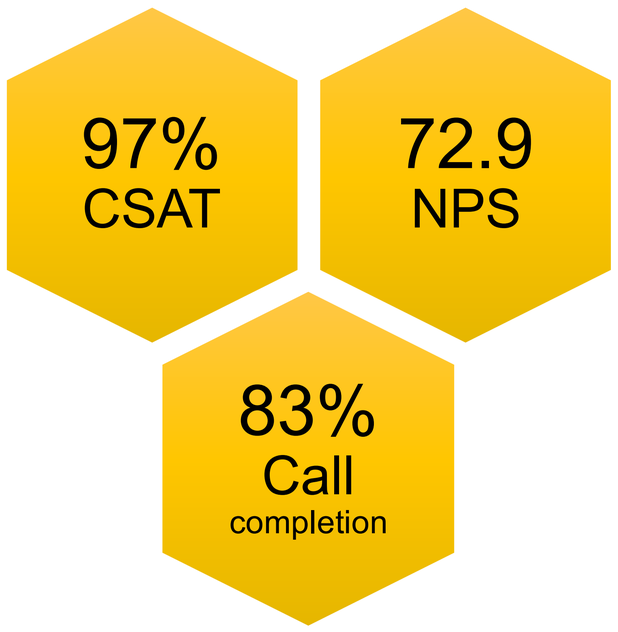


Figure 3: Acceptability and feasibility of the 6-week coach program.

DISCUSSION

A telephone- and digital-based coaching program was feasible and acceptable to cancer patients with income protection. Patients were very satisfied and the NPS for the program was much higher than the Australian life insurance industry average.[6] The program was also seen to be financially sustainable. The next stage is a randomised controlled trial to evaluate the coach program against RTW outcomes.

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