

## Australian Interview

What's the problem:

1. People have difficulty navigating the mental healthcare system and are unable to find the right practitioner – current system is too complicated with too many touch points before someone sees a MHP. A RACGP report found that over 70% of people presented to GP's with a primary mental health condition, yet GP's spend less than 8 min with a patient and refer to a MHP. I'm a Clinical psychologist and I spend at least an hour and even that is not enough to get a full history. So, how are they supposed to make an appropriate diagnosis and referral to someone that is really the best fit for the person.
2. We have a one-size fits all payment model. ie anyone in Australia can get 10 medicare rebatable mental health sessions with a Psychologist. However, not everyone needs 10 sessions. More severe cases require more so why not allocate funds based on need – adjusting number of sessions based on progress and outcome. However, there is no way to accurately measure this currently and so no way to reliably disburse funding – the current model is activity based not outcome focussed.

And with the boon in telehealth you would imagine that this would improve referral pathways and access to MHP's. Not so.

Last month since social distancing was implemented there were approx. 114,000 telemental health consults in regional/rural areas – 98% of these were with GP's. With a mental health workforce of over 50,000 practitioners spread across Australia why aren't more referrals going to them.

I really see this as a Social Justice issue of disparity in equality and equity in access where service availability is not equally distributed and people don't have equity of access to quality MHP.

At CC we are really focussed on making sure that people get the right care at the right time with the right practitioner – Research shows that if you have a good relationship with your practitioner it increases outcomes by 250% yet we don't routinely measure this or give information to patients about it so that they can make informed decisions about who they see.

So, we developed an AI driven algorithm that matches patients to their best-fit practitioner anywhere in Australia (eliminating the need to see a GP and freeing up their time), an inbuilt video-conferencing system that is secure and encrypted and a patient engagement analytic system that let's patients and practitioners track the wellbeing and progress of patients on their mental health journey. The platform provides a wealth of aggregate data on patient wellbeing, practitioner engagement, mental health hotspots and who is getting better and why – What we are talking about here is Precision Therapy.

Armed with this data CC is now researching and developing machine learning capability to use predictive analysis to predict mental health outcomes and prognosis.

This algorithm will allow for new approach to health care delivery with greater efficiency in matching up patients with practitioners and, most importantly, predicting mental health outcomes and prognosis. The algorithm will in turn be able to decide on the treatment that is most likely to be effective for each individual patient based on their demographics, preferences, and mental health issues resulting in empowerment of patients in managing their health and being provided optimal treatment recommendation.

This will optimise the efficiency of current mental health services and create ideal outcomes health-wise for the Australian population and

financially for the Australian health industry. Accurate mental health outcome predictions will allow for more personalised and effective treatment for the approximate 4.9 million Australians who suffer from mental health issues each year, while also helping to alleviate the costs of ineffective treatments.