

Submission to the Productivity Commission Mindgardens Neuroscience Network

MIndgardens Neuroscience Network (Mindgardens) is pleased to offer a submission to the Productivity Commission. Our submission essentially addresses Section 3: Contributing components to improving mental health and wellbeing of the Productivity Commission's *January 2019 Issues Paper*. In particular it provides a model that addresses (healthcare p.13); mental health promotion and prevention (p.14); suicide (p.14); and co-morbidities (p.15).

Summary Recommendations

Recommendation 1: Undertake a large-scale pilot of the Mindgardens care model to determine its capacity to deliver improved adult mental health care across Australia.

Recommendation 2: Implement evidence-based practices that have demonstrated return on investment in brain disorders care.

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Established in 2018, MIndgardens is a new, innovative organisation which aims to drive clinical excellence, research and education in neurological disorders, mental illness and addictions, by bringing together the strengths of four organisations: Black Dog Institute, Neuroscience Research Australia, South Eastern Sydney Local Health District and UNSW Sydney. The Mindgardens Neuroscience Network draws on the strengths of the Comprehensive Cancer Centre model. It is unique in Australia and consists of some of the nation's best and brightest researchers, clinicians and educators. Mindgardens' vision is to transform brain disorders, mental health, and addictions care by creating and expanding Mindgardens health services into patient pathways, serviced by a series of interconnected hubs within the community, putting the patient at the centre of service delivery underpinned by effective robust research and connected data in real time.

The Mindgardens model is driven by:

- The significant and growing burden provided by brain disorders.
- The substantial co-morbidity across brain disorders, necessitating a comprehensive approach.
- The existence of strategies that already exist which are cost effective and which deliver substantial return on investment outcomes. These can be put into practice to improve health care and reduce costs.
- The significant opportunity for scientific breakthroughs in understanding causes and treatments by promoting clinical trials.

Mindgardens aims to provide services in three principle areas of brain health: neurological conditions, mental health and drug and alcohol substance misuse.

Mindgardens provides care through three interlinked services: Apex Clinics, community hubs and technology services. The Apex Clinics are based on the 'one stop shop' concept, with brain disorders, mental health and substance use being assess simultaneously, using best practices and latest medical knowledge. This model aims to:

- Bring together psychiatrists, neurologists, GPs, addiction specialists, health professionals and peer support workers.
- Assess and develop pathways to specific treatment and intervention.
- Enrol patients in clinical trials as a means to embed research into practice and develop new treatments.
- Drive strategy through expertise from those with lived experience and from families and carers.
- Through technology, develop ways to integrate patients care and develop and promote prevention and early intervention.

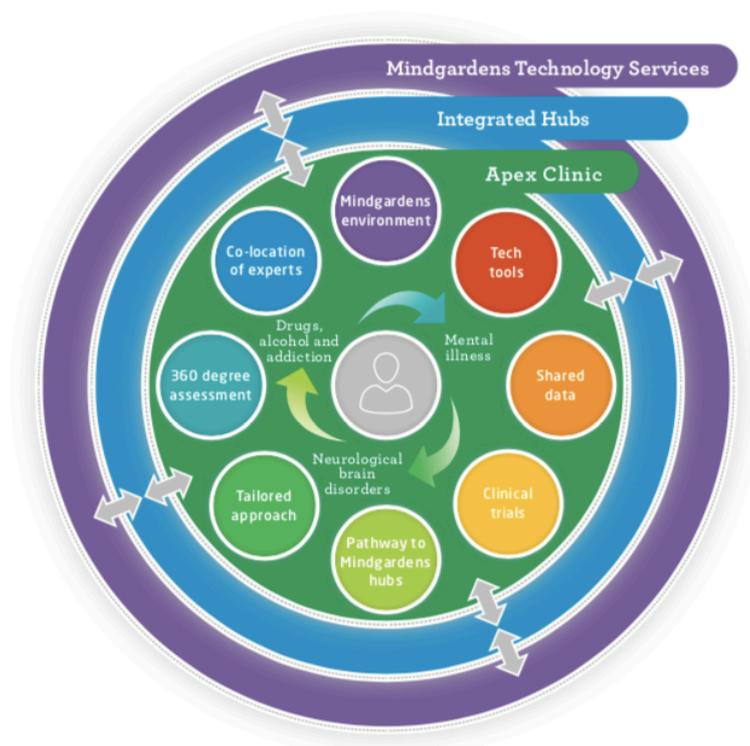


Figure: The Mindgardens model has three core components, the Apex Clinics, community hubs and technology services. The diagram illustrates key features of the services.

The components of the model

The Apex Clinic offers a holistic approach to brain disorders and includes:

- Stigma-free and inviting environment in a dedicated facility for people affected by mental health, brain disorders and drug and alcohol conditions.
- Co-location of experts consisting of senior clinicians, registrars, allied health and doctors/health professionals in training, all focused on providing better treatments and outcomes.
- Comprehensive assessment and referral to best practice approaches, tailored to the patient.
- A new 'brain liaison' service providing liaison and referral between mental health, drug and alcohol and neurological services, with case management and referral to Mindgardens Integrated Community Hubs, and with support from peer workers.
- Clinical trial enrolment providing access to novel and cutting-edge treatments.
- Patient monitoring and long-term follow-up using integrated, shared clinical records.
- Education and placement of clinicians-in-training and clinical researchers to develop the next generation of brain health care providers.
- A proactive and integrated framework in partnership with general practice to support individuals in the community.

The impact will be delivery of best practice management in mental health disorders; lowering emergency room (ER) admissions; earlier intervention; opportunities to test new clinical approaches at scale; and workforce integration and development.

Integrated Hubs offer clinical care across a number of streams.

Stroke rehabilitation. Post-stroke recovery remains very inadequate with limited and conflicting evidence for optimal treatment. The focus of our work in this area will be on clinical testing and validation of improved rehabilitation programs and outcomes.

Dementia outreach recovery and rehabilitation. Given the slow progress in developing new treatments for dementia, this service will address the urgent need for reablement – the process by which families and those with dementia learn how to live well with dementia. It requires a multi-disciplinary team visiting the patient in their homes, including psychiatrist, psychologist, social worker and occupational therapist, to offer activities, socialisation plans, and lifestyle improvements to compensate for the deficits brought about by dementia.

A psychosis service to provide new integrated approaches to care. The focus is on creating a service that provides holistic and comprehensive care, including the use of novel approaches for treatment resistance, the use of neurostimulation, cognitive remediation and clozapine, integrated with assertive management and monitoring of risk factors such as smoking, drug and alcohol use (with a particular focus on methamphetamine), diet modification, exercise physiology and dental care. Patient engagement will be enhanced using social prescribing and other holistic approaches, and potentially incorporating arts-based translational activities.

Expansion of depression services to assess, develop and provide novel treatments for the 'missing middle' – the large number of people with chronic depression and associated co-morbidities

(including drug and alcohol) who require more complex care than a GP can provide, but do not require inpatient treatment. The Apex Clinic will link strongly with general practice and the Integrated Community Hubs. This has three components:

- Collaborative care where management decisions are shared between the GP, mental health specialists and patients.
- True integration of patients' physical, social and mental health needs with programs of physical activity, diet modification and social prescribing, alongside more traditional pharmacological and psychological approaches.
- Use of technology to aid communication between partners in collaborative care and support use of ehealth interventions.

Crisis care hub service. A pilot of a safe house and drop-in recovery centre for people in suicidal crisis. This initiative will address the lack of after-hours services, and the need for alternate, non-clinical community pathways, for people in suicide crisis. Through the crisis care service we will establish the feasibility, and clinical and cost effectiveness of a 'safe house' for those in suicide crisis.

Comorbid drug and alcohol issues service which addresses:

- Smoking Cessation: In a setting where 70% of patients smoke, a new comprehensive program of smoking cessation for vulnerable populations using state of the art approaches will be progressed, including Vaping Technology, technology communications, new medications and behavioural incentive programs that will increase cessation.

- Physical Health improvements: By creating new and innovative interfaces with primary care, this approach will ensure improved comprehensive physical and dental health.

- Psychosocial development: The promotion of cognitive health and well-being will develop and adapt peer- based support and recovery approaches in both Mental Health and Drug and Alcohol Services. Priorities include identifying strategies to ensure the promotion of cognitive remediation approaches combined with strategies to reduce problematic substance use.

- Addressing the complexities associated with methamphetamine psychosis and methamphetamine dependence with an integrated service to provide combined input for this complex treatment population that currently falls between the two separate services. It would aim to develop a new and innovative approach that was focussed on support and ongoing treatment for individuals with a Methamphetamine Associated Psychosis with the aim of ensuring substantially better outcomes with assertive treatment of both psychosis and methamphetamine misuse.

Technology Services offer the opportunity to deliver digital therapeutics directly to the entire health district for prevention. They also offer cost effective models of providing treatment for mild to moderate depression, anxiety, and other disorders through iCBT programs (internet based cognitive behaviour therapy interventions), which have been found to have strong return on investment.

Ultimately, Mindgardens aims to provide a demonstration model of best practice, in a form that can be scaled for state and national roll out.

Recommendation 1:

Undertake a large-scale pilot of the Mindgardens care model that brings together ‘Apex Clinics’, Integrated Community Hubs, and technology innovations **to determine its capacity to deliver improved adult mental health care across Australia.** Develop models of care that reflect “comprehensive cancer centres” for brain disorders (including co-morbidity) – recommend that consideration is given to a concept of an integrated care facility.

Recommendation 2: Implement evidence-based practices that have demonstrated return on investment in brain disorders care.

Mindgardens commissioned KPMG to undertake a selective review of the cost effectiveness of particular interventions that can be used in the prevention or treatment of brain disorders. The whitepaper “*Review of the burden of disease for neurological, mental health and substance use disorders in Australia*”, released in March this year, found significant and powerful returns on investment for mental health conditions, and these had comparatively high impact when compared to other areas of health investment, such as heart disease or joint replacements.

The complete report is provided at the end of this submission. Key interventions that were associated with significant health care savings were:

- Assertive outreach post suicide attempt: \$1.0 billion long term
- Early interventions in physical health: \$1.8 billion in savings
- Prevention and early intervention: \$90 million in short term savings

Recommendation 2:

Implement evidence-based practices that have demonstrated return on investment in brain disorders care. Within integrated health care settings, implement the following interventions with strong evidence and high impact:

- Exercise therapy
- Early intervention in psychosis
- Internet Cognitive Behaviour Therapy
- Thrombolytic interventions
- Brief therapies
- Opioid therapy

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