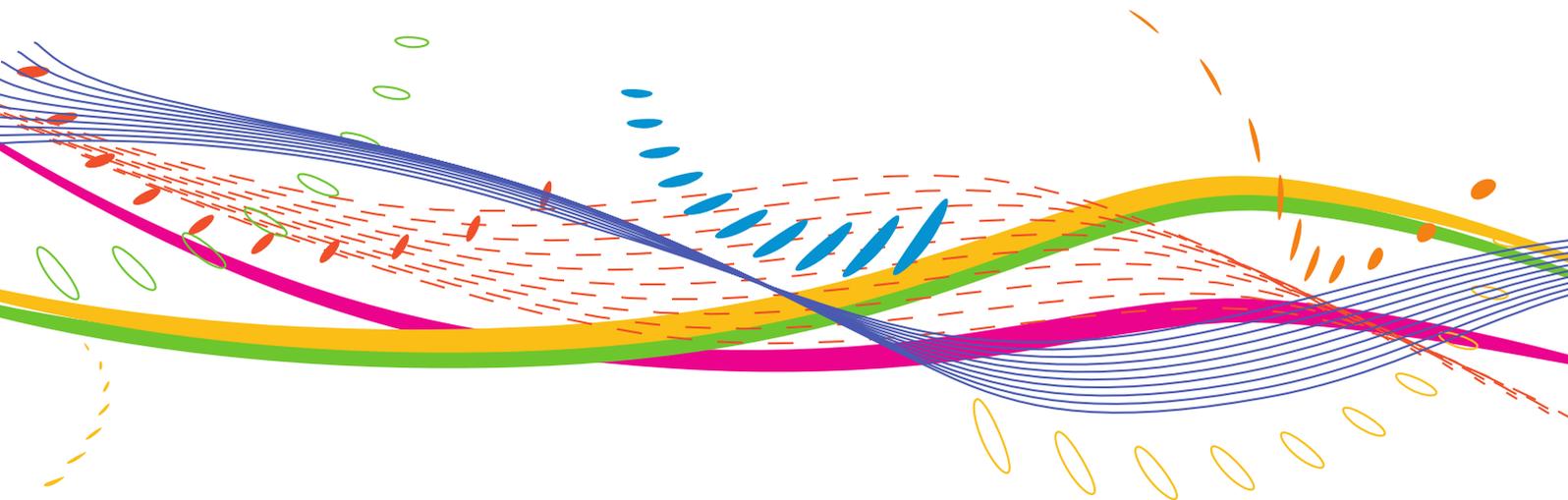




headspace submission – Your health. Your say.

Shaping the future of health and care together.

7 February 2017



Executive summary

A consultation with the Australian community to co-produce Australia's National Digital Health Strategy.

headspace welcomes the collaborative development of Australia's National Digital Health Strategy and values this opportunity to provide input.

Digital health is a broad topic, encompassing all health disciplines and a wide range of digital technologies that can be used to enhance service delivery along a continuum of care.

While acknowledging the importance of looking broadly at how digital technologies can improve the efficiency and effectiveness of the healthcare system as a whole, **headspace** has restricted this submission to digital mental healthcare innovation, as a key component of the National Digital Health Strategy – particularly as it relates to young people.

Section 1 of this submission provides an introduction to youth mental health, **headspace** National Youth Mental Health Foundation, digital mental health – emerging service scope and drivers of innovation.

Section 2 focuses on the need and opportunities for strong leadership, clear direction and coordinated action to create a world class digital mental healthcare system for Australia. This must include:

- mapping what currently exists, is working well, and where opportunities remain for digital enhancement of services
- harnessing the critical mass of knowledge, skills, expertise and technological capability that exists nationally, and continue learning from international success
- facilitating collaborative problem solving between government agencies, non-government organisations, mental health service providers, researchers, health-tech entrepreneurs, and most importantly service users
- aligning regulatory frameworks, funding and other requirements to support technological innovation.

In this context **headspace** highlights a number of opportunities for enhancement of youth mental healthcare services through digital innovation – focussing on early intervention for young people at risk of, or experiencing, early stages of a mental health disorder.

Recommendations include targeted investment in technology that will continue to improve: mental health literacy; early help seeking; engagement; service access; screening; assessment; stepped care (which flexibly matches individual needs to the most appropriate type and level of intervention as their needs change over time); youth mental health workforce development; system and process re-design; monitoring, evaluation and continuous improvement; resourcing and regulation.

Section 3 includes responses to survey questions revealing that:

- young people: are experiencing difficulties navigating the mental healthcare system and accessing the most appropriate information, advice, other self-help or professional products and services; however they do want to actively participate in and control their mental healthcare, and do want to use a range of digital technologies for this purpose.
- service providers are experiencing difficulties connecting, communicating with and coordinating mental healthcare services for young people and would welcome: improvements to existing desktop software / electronic medical records for this purpose; funding for care coordination; and automated My Health Record updates with a young person's permission and privacy protections.
- evaluators, researchers and innovators are independently working on many fronts to drive service improvement from 'the-ground-up' and would welcome greater collaboration with service users, service providers, government and non-government agencies to create a health-tech ecosystem, co-working spaces, accelerator programs for rapid commercialisation of new products and services with supporting regulatory and funding frameworks among other enablers.

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1. Introduction

1.1 Young people and their mental health

Mental health is the single biggest health issue facing young Australians. One in four young people aged 16-24 experience a mental health disorder in any given year, with 50 percent of mental health disorders developing before the age of 14, and 74 percent by the age of 24.

This represents a clear window of opportunity for early detection, intervention, disease prevention and management. However young people experiencing mental health difficulties do not typically seek professional help. Those who do often experience deterring access barriers, and only one in four actually receive professional assistance – with many disengaging before completing their treatment.

This is often attributed to factors such as: negative attitudes towards help seeking; cost; waiting times; limited transport options; sense of shame; fear of being judged; stigmatised; having confidentiality breached; difficulty understanding clinical terminology; unfamiliarity with assessment / treatment processes; negative past experiences; reluctance to seek help outside family; and / or perception of services as culturally inappropriate.

1.2 headspace National Youth Mental Health Foundation

headspace National Youth Mental Health Foundation (**headspace**) was originally established in 2006 by the Commonwealth Government to increase mental health literacy, reduce stigma, promote early help seeking and enhance access to youth friendly, socio-culturally appropriate care for all young people.

1.2.1 headspace services

Since establishment, **headspace** has developed a suite of mental health services for young people at risk of developing, or experiencing, early stages of a mental health disorder and co-occurring difficulties. This includes:

- **eheadspace**
- 100 **headspace** centres nationally
- **headspace** Youth Early Psychosis Program (hYEPP)
- **headspace** School Support Program (hSS)
- **headspace** Digital Work And Study Service (DWSS).

1.2.2 Youth mental health workforce development

Additionally, **headspace** has developed a suite of web-enabled digital platforms to support and guide the youth mental health workforce. This includes:

- **headspace Learning** – giving all (clinical and non-clinical) **headspace** service providers access to a wide range of digital education, training and professional development resources
- **headspace Forum** – bringing **headspace** centre staff (from 100 centres) face-to-face to network, attend seminars, panel discussions, workshops, share experiences, ideas, examples of best practice etc.
- **headspace Ourspace** – creating a repository of intellectual property generated by **headspace** centres.

1.2.3 Service delivery, monitoring, evaluation and research

Delivery of **headspace** services is dependent on customised digital systems that facilitate client profile creation, relationship management, service delivery, data capture, real-time monitoring, evaluation and research through use of:

- **headspace** minimum data sets (MDS)
- **headspace** electronic data collection (HAPI and DHL) and reporting (Tableau) tools
- **headspace Ticket System** for monitoring service user feedback (complaints, compliments and suggestions) and incidents.

More information about the **headspace** service models is provided in *Section 3.3.1* of this submission.

1.3 Digital mental health

While acknowledging the importance of looking broadly at how digital technologies can improve the efficiency and effectiveness of the healthcare system as a whole, **headspace** has restricted this submission to digital mental healthcare innovation, as a key component of the National Digital Health Strategy – particularly as it relates to young people.

1.3.1 Definition

For the purpose of this submission, digital mental healthcare is defined as any mental healthcare product or service, delivered via information communication technologies (ICT), in the form of self-help, or as an integral part of professional services, accessed on-line or face-to-face in various healthcare settings.

1.3.2 Emerging service scope

Digital mental health service scope is broad. New and emerging technologies are being applied at population health and individual levels as part of a 'stepped care' approach – whereby individual needs and preferences are flexibly matched to the most appropriate type and level of intervention(s). Typically interventions fall into one of four levels of stepped care:

- Population health campaigns such as the **headspace** Big Stigma, Fathers, Yarn Safe and We've Got Your Back campaigns.
- Self-help such as: internet-based information; general advice; symptom checkers; interaction with automated chat bots; computer generated avatars; down-loadable apps (for mindfulness training cognitive behavioural therapies, skills-based training, active-scheduling); and wearable devices that act as bio-metric monitors, linked to user-friendly data dashboards for visualisation of health outcomes, self-monitoring, self-management and connection to additional supports as required.
- Professional services provided remotely (to individuals or groups) via digital platforms such as **eheadspace** (eheadspace.org.au), ReachOut (reachout.com), Synergy-Young and Well (youngandwellcra.org.au), Bite Back – Digital Dog (digitaldog.org.au), Mind Blank (mindblank.org.au) and Kids Helpline (kidshelpline.com.au)
- Professional services provided face-to-face such as the federally funded **headspace** centre services or Orygen Youth Health services with a range of digital enhancements.

Beyond each occasion of service, there is growing interest in, and use of, digital technologies that involve young people in the implementation of their care plans at home, school, work or in social settings.

This is starting to occur through use of new software programs and computer hardware that can help schedule daily activities, encourage application of new knowledge and skills, allow for different levels of self-monitoring, self-management and (where desired / required) professional review and connectivity to broader support networks. Importantly, emerging digital technologies are allowing for real-time service delivery and outcome monitoring, through a range of mechanisms including automated bio-metric data capture, analysis and reporting in user friendly formats.

1.3.3 The drivers of innovation

Current drivers of digital mental healthcare innovation include:

- health system limitations such as: health workforce shortages; geographic mal-distribution of service providers; poor cross-communication between service providers; poor care coordination / integration - causing the fragmentation of care, duplication of effort, wastage of resources, a reduction in the efficiency and effectiveness of the mental healthcare system as a whole
- health-tech innovation such as: automated chat bots, down-loadable applications, wearable devices for self-monitoring and management, clinical software with advanced features (discussed elsewhere in this submission), big data analytics, new diagnostic technology (functional neuroimaging) and treatment modalities (trans-cranial magnetic stimulation) generated by researchers, entrepreneurs, health-tech-startups, small to medium enterprise and corporations
- health consumer demand for:
 - a wider range of digital self-help options
 - greater participation in more personalised care - provided by healthcare professionals either remotely via digital platforms, or face to face, in clinical settings with digital enhancements
 - the same digital user experience (UX) offered by other service industries such as retail, banking, insurance, travel, hospitality and entertainment industries.

2. headspace recommendations

This section highlights key opportunities for enhancement of youth mental healthcare through digital innovation.

2.1 Strong leadership, clear direction and collective action

Despite the clear need and opportunity for digital mental healthcare innovation the Fifth Mental Health Care Plan released for consultation late last year did not include it as a strategic priority. There is an urgent need for strong leadership, clear direction and collective action to create a world class digital mental healthcare system for Australia. This must include:

- mapping what currently exists, is working well, and where opportunities remain for digital enhancement of services
- harnessing the critical mass of knowledge, skills, expertise and technological capability that exists nationally, and continue learning from international success
- facilitating collaborative problem solving between government agencies, non-government organisations, mental health service providers, researchers, health-tech entrepreneurs, and most importantly service users
- aligning regulatory frameworks, funding and other requirements to support technological innovation.

2.2 Early detection and intervention

2.2.1 Awareness and engagement

To continue increasing mental health literacy, reducing stigma, promoting early help seeking, at a population health level **headspace** recommends ongoing investment in digital community awareness and engagement strategies delivered through:

- digital television
- digital radio
- internet-based
 - websites
 - video-sharing platforms (YouTube)
 - social media platforms (such as Facebook and Twitter)
 - blog sites.

2.2.2 Help seeking

The internet has fast become the first port-of-call for young people (their families, friends and service providers) 24 hours a day, seven days a week, through personal computers and mobile devices. However the exponential growth in internet content (of varying quality) is making it harder to quickly and easily locate reliable resources tailored to the needs of young people.

To improve the ease and reliability with which young people can find appropriate youth mental health products and services via the internet, **headspace** supports creation of a single portal (like the proposed National Mental Health Gateway) that is segmented for people at different stages of life – giving young people, their families, friends and service providers access to products and services developed specifically for young people. This would include:

- search engine optimisation for youth mental health products and services
- curation of existing internet content such that the best and most relevant information, advice, products and services can be quickly and easily located
- integration of algorithms that can help match individual needs and preferences to appropriate products / services / service pathways, thus creating a flexible and responsive 'stepped care' approach
- a system of quality control for emerging digital mental health products and services, to ensure they meet nationally recognised standards of quality, safety, efficiency and effectiveness.

2.2.3 Enhanced access

To enhance access to youth mental health products and service **headspace** recommends targeted investment in:

- automated self-referral, screening and appointment scheduling
- ICT assisted waiting list management - including client flow and risk management
- ICT enabled access to 'while you wait' options – which may include general information, advice, pod-casts, chat bots, avatars, on-line peer-groups, forums and other forms of first-line intervention.

2.2.4 Screening and assessment

To improve early detection **headspace** recommends targeted investment in:

- digital tools for screening and holistic assessment of young people's needs such as the electronic **headspace** Assessment Tool (eHAT), which is currently in trial phase
- computer algorithms to assist with nationally consistent clinical staging – leading to earlier detection of:
 - bio-psycho social risk factors predisposing a young person to mental health difficulties or a disorder
 - risk of suicide, self-harm and other vulnerabilities
 - sub-threshold symptoms of a disorder
 - threshold symptoms of a disorder.

2.2.5 Stepped care

To improve alignment of early interventions with an individual's clinical staging **headspace** recommends (as part of the Digital Mental Health Gateway) targeted investment in computer algorithms for nationally consistent approach to 'stepped' mental health care encompassing at a minimum: 1) general information and advice applicable to all young people 2) customisable self-help options 3) professional services delivered remotely via digital platforms and 4) professional services provided face-to-face with digital enhancements.

2.2.6 Youth and family participation

To enhance the participation of young people, and their families, in their own care, **headspace** recommends targeted investment in digital technologies that will increase:

- understanding of their difficulties and contributing factors
- collaborative practice for assessment, care planning, delivery and review
- use of (evidence-based) digital tools that help young people
 - implement recommended care plans from the comfort of their own homes or in educational, employment, social and / or other settings
 - monitor and manage their own progress
 - access additional support between occasions of service as required
 - share the results with their service providers during clinical review.

2.2.7 Appropriate care

To promote development of appropriate mental healthcare products and service for young people, **headspace** recommends development and adoption of national standards, indicators and guidelines that ensure products and services are:

- socio-culturally appropriate
- developmentally appropriate
- suited to the stage of illness
- suited to the complexity of each clinical presentation.

2.2.8 Holistic care

To ensure digital youth mental health services are provided as part of holistic models of care, **headspace** recommends targeted investment in technologies that integrate mental health care services with other health and welfare services, particularly where there is evidence of co-occurring physical health, sexual health, alcohol and other drug (AOD) and vocational difficulties.

2.2.9 Service integration

To improve service integration **headspace** recommends collaboration between national ICT regulators, funders, software vendors, service providers and service users to build the following features into clinical desktop software: sharable health summaries and care-plans, care-coordination mechanisms, case-conferencing capabilities; health outcome tracking with capacity for involvement of young people, their families and friends in the process.

2.2.10 Supported transitions

To ensure young people who need to move between services (yet are at highest risk of disengagement and poor health outcomes) receive supported transitions, the following features need to be built into electronic medical records: links to digital service directories, secure messaging, automated e-referral, appointment scheduling, referral / transfer tracking, and closed feedback loops.

2.2.11 Youth mental health workforce development

To promote youth mental health workforce development and capacity expansion, **headspace** recommends targeted investment in digital platforms such as **headspace learning**, **headspace Forum** and document sharing platforms such as **headspace Ourspace**.

2.2.12 System and process redesign

To enhance the digital mental health 'service user' and 'service provider' experience, **headspace** recommends review, adaptation and adoption of suitable digital systems and processes implemented by other customer-oriented service industries including retail, banking, insurance, travel, and entertainment industries.

2.2.13 Evaluation, research and innovation

To support continuous improvement **headspace** recommends targeted investment in:

- evaluation of service use and outcomes through:
 - nationally agreed clinical coding for mental healthcare service provision
 - nationally agreed minimum data sets
 - electronic tools for data collection, storage, analytics and reporting
- research aimed at better understanding:
 - distribution of mental health risks, difficulties, mental health disorders across Australia
 - patterns of help seeking
 - service availability, capacity and reach
 - patterns of service usage
 - service user experience
 - service gaps
 - health outcomes
- innovation involving:
 - young people, their families and friends
 - clinical evaluators and researchers
 - the private sector – corporations, SME, start-ups and individual entrepreneurs.

2.2.14 Resourcing

To ensure young people are not denied access to mental health care due to cost **headspace** recommends that:

- cost barriers be mapped and removed as a priority and kept to a minimum once all no-cost options are exhausted
- MBS items for delivery of tele-health services to young people be expanded – particularly for young people from high risk / priority groups
- federal budget allocations be made specifically for:
 - digital mental health programs for young people – i.e. **ehespace**
 - evaluation, research and innovation in digital mental health service options for young people
 - digital mental health infrastructure – i.e. national, regional, local levels

2.2.15 Regulation

To optimise the structure and performance of a digital mental healthcare system for young people **headspace** recommends review of regulatory frameworks governing digital mental health:

- remove barriers to seamless mental health care and integration with other health and welfare services
- improve cross communication between settings through use of inter-operable desk-top software – i.e. electronic medical records / secure messaging / other features
- introduce nationally consistent coding for each occasion of service provided in primary, sub-acute, acute mental healthcare settings – facilitate big data analytics and better service planning etc
- align with efforts of e-health Standards Australia.

3. Response to survey questions

In preparing this submission **headspace** posed the survey questions contained in the discussion paper to the **headspace** Youth National Reference Group (hYNRG) comprising of 25 young people from a diverse range of socio-cultural backgrounds. Their responses have been collated below.

3.1 Consumers, carers and families

- **What difficulties do young people have navigating the mental health system?**
 - Young people feel there is no singular clear access point for youth-focused mental health care products and services
 - Google search conducted by hYNRG members (using broad search terms that young people are likely to use when looking for help / suitable products and services) revealed that:
 - most search results only provide basic health information applicable to the entire population, not specifically tailored to the needs of young people
 - there is no easily found, national service directory, specifically for young people
 - www.health.gov.au/mental health provides links to crisis support – Young people find this intimidating as they feel they need to be in a crisis situation before reaching out and therefore not seek help
 - Mental Health Services Australia (mhsa.aihw.gov.au/home/) is one of the highest listing Google search results – once found it is mistaken as a source of information for young people seeking help. This leaves them feeling overwhelmed by the amount and type of information available and lack of quick and easy linkage to suitable services
 - Parents finding it difficult to navigate system on behalf of young people – leaving young people without support
 - Young people are not sure about who to approach for assistance, as they are not always entirely clear about the nature and source of their health difficulties, nor what type of intervention might help – often acting on sense that something is wrong, therefore some form of initial screening / holistic assessment is required to determine need and the best access point(s) to the mental health system
 - Young people are being bounced around the system on the basis of regulatory technicalities activated by undisclosed service eligibility criteria, change in health status, a change of address, different funding sources, expiry of coverage period, exhaustion of allocated number of services under specific programs before fully recovering
 - Continuous changes to service providers increase the risk of disengaging, losing their way – instead they want continuity if they have found a suitable service provider
 - Young people find it difficult having to repeat their stories (particularly when unwell) as they move from one service provider to the next – instead they want their 'story' recorded once upon first contact with the mental health system and that information shared (with their permission) by all service providers. Building a shared understanding of their situation / condition and service needs as understood by the young person and their preferred way forward
 - Want peer support workers to help navigate the system – can virtual / digital assistants help?
 - When young people can't establish rapport with one service provider they want help finding a new one to prevent disengaging
 - Once in the system and referred elsewhere young people feel that there are unclear referral pathways and inconsistent referral processes
 - Young people how / where to get a mental health treatment plan (MHTP) and how it works – greater transparency and explanation is required.
- **What difficulties do young people have accessing mental health services?**
 - Cost constraints – need no or low cost service options,
 - generally young people don't have their own / adequate income stream to independently pay for health services
 - especially if in priority group, or an international student or ineligible for Medicare care or other government subsidy
 - difficulty finding government subsidised / fully-funded services
 - GP MHTP session allocation running out before they are better without clear options for on-going engagement and intervention
 - Limited personal transport options, metro, rural, remote, interstate
 - Difficulty accessing services that address co-occurring difficulties such as mental health and AOD or mental health and eating disorders
 - Time constraints – need services outside school / work hours

- Inconsistent / sporadic availability of appointments with service providers – especially specialists
 - Negative past experience and difficulty changing service provider until young people find the right fit
 - Finding service providers with the appropriate qualifications, experience and interest in youth mental health / physical health / sexual health and other co-occurring difficulties
 - Stigma – especially for young people from culturally and linguistically diverse communities (CALD) communities
 - Misconceptions about 'how bad' things need to be before reaching out for help – young people need to be encouraged to seek help early
 - Unsuitability of services – young people need youth friendly service options i.e. relaxed, warm, welcoming, open, transparent, non-judgemental, non-stigmatising, easily understood, and engaging.
- **Do young people want to be in control of their own mental healthcare?**
 - Yes – but dealing with mental health difficulties / emerging or established disorders can be overwhelming making it very difficult to effectively engage and be in control of one's care. This needs to be taken into consideration with UX design of mental health products and services
 - Yes – young people want choices, to be involved in shared decision making, collaborative practice but ultimate self-determination with support and guidance from service providers, families and friends
 - Yes absolutely – increased participation and control gives young people the opportunity to develop new knowledge, skills and capacity for self-monitoring and self-management of their difficulties / disorders – make best use of available services
 - Yes –it gives young people a sense of empowerment and strength under circumstances that can be disempowering and weakening
 - Yes – but mental health services should be tailored to the needs of young people and they should have on-going input into service planning, development, delivery and evaluation
 - Yes – but young people are often at the transitional stage between childhood / adolescence and young adulthood. This has privacy implications that need to be addressed through: clear explanation of limitations and reach; requirements for permission under different circumstances with opportunity to change permissions as they wish; informed consent; sharing information with legal guardians
 - Yes – but often vulnerable, unwell and in need of support from family / friends / service providers in a way that doesn't undermine a young person's right to self-determination and subtract from their opportunities to learn and grow through the experience
 - Yes – but service design needs to cater for independent control and shared control to accommodate what a young person wants / needs at different points in time.
- **What does 'being in control of your mental healthcare' mean to young people?**
 - Understanding one's difficulties + risk and protective factors
 - Having options to choose from
 - Participating in shared decision making and collaborative practice
 - Having one's privacy protected
 - Knowing what one's rights and responsibilities are
 - Providing fully informed consent – clinical & financial
 - Having the right to self-determination upheld
 - Having one's needs, priorities, values, preferences respected by service providers
 - Participating in their own assessment, case formulation, service planning, delivery and review
 - Having access to resources / tools that help build knowledge, skills and capacity to overcome difficulties
 - Being able to monitor one's progress / track mental health journey via an app and mobile device
 - Being able to request / make changes to service provider(s) or intervention strategies
 - Having access to services that are government funded as young people often do not have adequate resources to access professional services
 - Being at the forefront / centre of their care and influencing / tailoring how they are supported / cared for
 - Having meaningful input into who you see, when you see them, the type of interventions you receive
 - Having real choices – currently there is very little choice within range of no-cost / low-cost service options
 - Being properly informed (prior to initiation of referral) of the service options, what one is signing up to, and being given the opportunity to choose otherwise if that option is unsuitable
 - Being able to tell a service that you don't get along well with a service provider and that you want to see another and being supported to transition elsewhere
 - Getting to the point where you know what some of your triggers are so that you can avoid them
 - Having the knowledge and skills to recognise when things are not ok and knowing when and where to seek / find help
 - Being able to tell their service provider who they want to them to speak with – i.e. aunty / not parents or only parents if really unwell
 - Upholding a young person's right to privacy and confidentiality – within legal limits

- Knowing what type of information their service providers are keeping about them and who the service can / will or has passed their information onto
- **How would young people like to access their own health information?**
Young people want a range of options:
 - Some would like password protected site with all information, health summary, care plan, referrals, and links to other resources that will help them overcome their difficulties / better manage disorders
 - Others would prefer to access their health information via down-loadable applications (apps)
 Irrespective of the access point – all want:
 - an easily understood format
 - easily navigated and managed content
 - links to information about youth mental health issues, service options, other resources
 - links to fully and partially-subsidised mental health service options, (provided face-to-face, on-line, over the phone) that are not crisis services
 - their privacy and confidentiality protected and self-controlled
 - information shared by collaborating health professionals (with a young person's consent) so that they don't have to re-tell their story every time they meet a new service provider.
- **What type of digital devices do young people want to manage their own mental health and wellbeing?**
Young people want to use mobile devices (particularly smart-phones) for mental health related:
 - instant chat
 - text or phone services
 - video appointments
 - on-line check-ins
 - on-line record of progress
 - on-line resources for common interventions such as mood tracking, mindfulness training, challenging automatic thoughts
 - applications to track use / progress / health outcomes between appointments and discuss the results with service providers when they next meet at face-to-face or on-line appointments
 - on-line client files so information does not get lost between appointments.

3.2 Clinicians and other healthcare providers

- **What gets in the way of youth mental health service providers being able to effectively connect, communicate and coordinate with the right people?**

My Health Record (MHR)

Disruption to work-flow and duplication of effort, if required to maintain a shared health record (like MHR) that is separate and additional to their own desktop / electronic medical record – associated:

- time constraints & absence of funding for maintenance of separate shared health record
- uncertainty about utility / reliability of information / perception of professional indemnity risks
- client privacy confidentiality concerns

Individual electronic medical records (EMR)

MHR aside – seamless connectivity, communication and coordination seems to be hindered by:

- difficulties with establishment of secure messaging networks between service providers in different healthcare settings. EMR and secure messaging vendors need to make their products and services interoperable
- Absence of an updated digital service directory to identify the most appropriate local youth service providers with whom to connect, communicate and coordinate services
- Absence of collaborative care planning, care co-ordination, team conferencing tools / features built into EMRs / desktop software.

Funding

- No MBS or other payments for 'non-clinical time' spent trying to connect, communicate and coordinate care between occasions of service

- **What do mental health service providers need to able to effectively connect, communicate and coordinate with the right people?**
 - Improve features of desktop software / EMR to enhance connectivity, communication and coordination
 - securely shared - health summaries / records
 - use of electronic tools that support assessment, service planning, delivery, coordination, review
 - built-in electronic decision support - evidence based and personalised
 - secure messaging between service providers and service recipients,
 - automation of recalls and reminders
 - real-time monitoring and tracking progress in response to applied interventions
 - active engagement and participation of each client in their own care
 - automated privacy and confidentiality considerations / features
 - automated provision of informed consent (including financial consent) and
 - automated payment systems – that apply subsidies, concessions at the point of care – eliminating or reducing out-of-pocket costs for young people
 - Attention to every aspect of UX in the design of service pathways and technological supports
 - Introduce payments for care coordination / service integration – for service providers or separate care coordinators?
- **What should be the immediate priority initiative for My Health Record to ensure it delivers real value for youth mental health care professionals?**
 - Prevent disruption to workflows an duplication of effort
 - Auto-populate / update MHR from desk-top EMR at each occasion of service (with a young person's permission) or remunerate service providers for manual updating – but this is an inefficient approach
 - Engage service providers in refinement of MHR to ensure content, structure and function is useful, reliable, risk mitigating and respectful of individual's privacy and confidentiality concerns.
- **How could data and technology be better used to improve youth mental health and wellbeing?**

Better data and technology can be used at the:

- *Individual level* to:
 - monitor and manage own progress while engaged in self-help activities or professional mental health services
 - communicate results with service providers during and / or following implementation of care plans
- *Service level* to:
 - improve patient care
 - clinical audit, trend, risk analysis
 - better understanding of local population needs and patterns of service usage
 - identify service gaps and opportunities for service improvement
- *National, regional and local level* to:
 - apply nationally consistent clinical coding for mental healthcare services provided in primary care settings akin to ICD
 - allowing for 'big data analytics'
 - use nationally consistent data for patient population trend analysis, targeted investment in population health promotion, disease prevention, management, overall service planning at a national regional, local level

3.3 Academics, scientists, researchers and innovators

headspace services represents a decade of collaboration between young people, their families, friends, local service providers, academics, scientists, researchers and innovators across all of its service platforms – including its network of 100 **headspace** centres.

3.3.1 What are your organisations priorities with respect to digital health or e-health?

- **Population health promotion – community awareness and engagement / strategic communications**

headspace develops and delivers digital public health campaigns nation-wide, to increase mental health literacy, reduce stigma, promote early help seeking and access to a range of services through a 'stepped' model of care. This includes population health promotion, a range of individual self-help options (available via the **headspace** website) and professional services (of varying resource intensity) through **eheadspace**, **headspace** centres and other **headspace** program areas.

- **headspace program areas / service platforms**

headspace has several evidence-based service platforms that represent significant investment in the development of mental healthcare services for young people:

- **eheadspace**
- 100 **headspace** centres
- **headspace** Youth Early Psychosis Program (hYEPP)
- **headspace** School Support Program (hSS)
- **headspace** Digital Work and Study Service (DWSS).

- **Youth participation - hYNRG**

headspace service have been developed for young people with young people. This process of co-creation occurs through on-going and dynamic interaction between **headspace** National Office (hNO) **headspace** Youth National Reference Group hYNRG) and **headspace** Local Youth Reference Groups (LYRGs) and broader service users and their families and friends through a range of interconnected digital technologies / platforms such as:

- **headspace** Facebook – giving hYNRG and LYRG members their own profile that can be used to connect with others
- **headspace** *Learning* – giving hYNRG and LYRG members access to **headspace** orientation, education, training and capacity development activities
- **headspace** *Ourspace* – giving hYNRG and LYRG members access to all electronic resources developed by hNO or the **headspace** network / community members in support of their national, regional and local activities

- **Youth mental health workforce development**

Youth mental health workforce development (across all program areas) also occurs through:

- **headspace** *Learning*
- **headspace** *Forum*
- **headspace** *Ourspace*.

- **Monitoring, evaluation and continuous improvement**

- **headspace** Model Integrity Framework (hMIF)
- **headspace** certification process
- **headspace** minimum data sets
- **headspace** electronic data capture tools (HAPI and DH2)
- Tableau reporting suite
- **headspace** *Tickit* system - records and reports on service compliments, complaints and incidents.

3.3.2 What should be the immediate priority initiative for the My Health Record to ensure it delivers real value for clinicians and the public?

- As per *Section 3.2*
- Plus de-identified research functionality
- Big data analytics – tools and capabilities.

3.3.3 What support do entrepreneurs need to encourage greater innovation in healthcare?

- Better understanding of youth mental health care needs / pattern of product and service use / models of care
- Nationally agreed standards (of quality, safety, efficiency and effectiveness) and protocols to guide co-creation of digital mental health products and services for collaborating clinical, research and technology sectors
- Facilitated collaboration with service providers and service users to develop suitable products and services
- Aligned accelerator programs that help translate evidence into practice – with access to multidisciplinary teams that can guide product / service development
- Related regulatory frameworks, IP protections, funding, infrastructure and other supports.

3.3.4 How would you describe the working relationship between the research and science community and the technology sector in respect to healthcare innovation?

There are isolated examples of highly effective and productive working relationships that have been forged by pioneering individuals across the research, clinical and technology sectors. To make collaboration between the sectors commonplace, and accelerate the rate of quality innovation, their requirements and optimal conditions for agile product and service development need to be explored further.

3.3.5 What are the barriers or obstacles to innovation in health and care?

- Traditional mental health services not being appropriate / attune to the needs of young people
- Limited youth mental health workforce models and associated education, training and professional development programs / activities / resources
- Funding models that do not adequately recognise the vulnerability and economic access barriers experienced by young people
- Regulatory controls that do not recognise the needs of young people
- Traditional clinical practices that do not recognise the needs of young people
- Lack of in-situ innovation programs for development of new and improved products and services for young people
- Data protections and limited analytics / reporting capabilities.

4. Conclusion

There is clear need and opportunity for strategic enhancement of youth mental healthcare services through the use of digital technologies at a population health and individual levels – encompassing population health initiatives, self-help options and professional services provided either remotely (via digital platforms) or face-to-face in more traditional settings – with digital enhancements.

Given the benefits associated with intervention early in life, and early in the stage of illness – any technological enhancement of youth mental health services must enhance current efforts to improve mental health literacy, early help seeking, access, screening, assessment and stepped care - as part of a holistic approach to youth mental health care that simultaneously addresses any co-occurring difficulties with a young person's physical health, sexual health, AOD use and vocational engagement.

Successful implementation of any new and emerging technologies will be dependent on effective collaboration by all stakeholders – particularly young people, their service providers, service evaluators, researchers, entrepreneurs and others driving the digital mental healthcare revolution.