



THE UNIVERSITY OF
SYDNEY

Redesigning Primary Mental Health Care for Enhanced Access, Equity and Quality

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A Discussion Paper – August 2023



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Executive Summary

We have previously outlined a framework for reform of Australia’s primary mental health care system, helping people to **get on the right track**. This is necessary because Australia’s approach to the provision of primary mental health care is sclerotic and unresponsive, delivering unaccountable and inequitable services. It is taking far too long for people to find the right care. The 2023 Federal Budget recognised this, investing in the process of reform, with a particular focus on supporting the roles of General Practitioners (GPs). While this may be a reasonable starting point, access rates to GP mental health care services vary considerably depending on where you live (see Table 1). Existing Medicare-funded mental health services are not provided equitably.

Table 1 - GP Mental Health Medicare MBS Item Numbers Processed per 100,000 Population 2021-2022

GP Mental Health MBS Item	State								Nat Avg
	NSW	VIC	QLD	SA	WA	TAS	ACT	NT	
2700	386	381	384	556	529	585	319	293	414
2701	155	111	118	174	139	158	89	218	135
2712	1,423	1,887	1,890	1,621	1,918	1,793	1,501	703	1,706
2713	4,303	5,206	5,051	4,351	4,537	3,581	3,511	3,308	4,675
2715	2,757	3,469	3,487	2,964	3,170	2,902	2,864	1,708	3,141
2717	900	851	846	775	698	659	794	803	839

Under existing Medicare structures, and noting that item numbers themselves are not a perfect indicator, we know that services are **more available** in areas with lesser mental health needs, and more available in areas where people have a **greater capacity to pay**. There is **little, if any evidence** existing mental health service structures have driven better outcomes, for individuals receiving care or for the population as a whole.

Enhancing access, overcoming inequity and improving the quality of mental health care **cannot be achieved** by existing workforce and service models alone. Simply growing the workforce or spending more on existing services (largely through increased payments to existing providers) will not be enough.

It requires broader consideration not only of the role of GPs, but also the other players, tools and services which can deepen and strengthen Australia’s primary mental health system. How those primary care entry points, or their role in continuing care, intersect with timely and affordable access to more specialised forms of care requires urgent reconsideration.

Australia’s capacity to respond appropriately to complex challenges in mental health has been demonstrated. COVID-19 elicited one such response: in 2021-22 of \$13.6m Medicare mental health services provided to Australians, **31% were provided via**

telehealth.

In that situation, where prior business models (based on remuneration for face-to-face consultations) could not be maintained, both governmental and professional responses were swift and effective.

Here, we describe how we can build on these innovations, to develop a new primary mental health care 'ecosystem', addressing both the clinical and psychosocial needs of people experiencing mental ill-health. Figure 1 describes a new flow or pathway for people seeking primary mental health care. Figure 2 describes this in more detail, and the service components that populate this new ecosystem. This ecosystem could provide more equitable access to personalised assessment and measurement of outcomes. The latter features are essential to enhanced quality of care for those attending health services for their mental health difficulties.

This new ecosystem is predicated on major changes to the way people could access more specialised psychological care. It proposes removing one barrier, namely referral via a general practitioner. It recognizes that access to GPs is restricted by availability, out-of-pocket costs and distribution of practices. Further, it also recognizes that many people would prefer to access psychological care directly and independently of their other primary health care or psychosocial needs.

This new ecosystem is regionally organised and digitally-supported to enhance easier and low cost access to clinical or psychosocial care. Consistent with our dynamic system modelling of what would deliver optimal outcomes for service users [1, 2], it maintains an essential triage function that would assist people to access the 'right care, first time, where they live'. It does not propose a Government-funded 'open-access' to psychological or psychosocial care.

By contrast with the existing GP-based gate-keeper system, it transfers the essential triage function to PHN-based systems, proposing that regionally-organized authorities are best able to coordinate the range of clinical and psychosocial services available locally and direct clients to those services. We recognise that few, if any, PHNs could currently fulfil this role, which will require support and which may also extend to the commissioning of a range of psychosocial and other services (e.g. Relationships Australia) to meet the specific needs of those seeking psychological care.

One of these essential primary care services is the existing General Practice network, but in this model we place greater emphasis on augmenting 'generalist' care, using those clinicians to deliver specific types of clinical care (e.g., integrated medical and psychological care, prescribing of and ongoing monitoring of appropriate psychotropic medications) alone or in team-based care with other professionals or linked to other psychosocial services (including the concept of 'social prescribing'). Within this model, those who present through their own GP would still be able to enter the new ecosystem directly, or via the PHN-coordinated network.

So, the system outlined in Figures 1 and 2 includes the delivery of several key functions:

1. the role of Primary Health Networks (PHNs) to manage and coordinate care for people with mental ill-health in their region
2. a new and central role for specialist assessment, review and support, to be provided by psychiatry, clinical psychology, other expert mental health professionals or mental health nurses
3. a national system of psychosocial support services (commissioned regionally), to operate as partners with clinical service providers
4. effective staging of the mental health service response, across both psychosocial and clinical services, so that the person gets the right level of help at the right time and,
5. ongoing monitoring of individuals, and transparent reporting (aggregated and deidentified) of individual-level outcomes, to check the impact of the care provided and take further individual or organizational actions as needed.

Such an ecosystem depends on an appropriate mix of clinical and digital infrastructure to help people:

- Enter the mental health system more easily and at low (or no) personal cost
- Express their own specific clinical and psychosocial needs
- Find the right clinical or psychosocial service the first time they present
- Carry relevant prior and current treatment information across relevant clinical and psychosocial service providers
- Assess the impact of various clinical and non-clinical interventions and services
- Dynamically coordinate the service systems responses to a person's needs

This clinical and digital infrastructure needs to be regionally-deployed, to underpin rapid assessment and smart triaging to appropriate levels of clinical and psychosocial care. Additionally, it needs to play a central role in ongoing coordination of care. This digital approach will empower new people to enter the system, become active consumers in their own health care journey, prevent the loss of key information over time and drive the health care system towards greater accountability for the provision of evidence-based therapies.

The central question for this paper is how to implement this novel framework in the real world?

Figure 1. A New Primary Mental Health Care Ecosystem – Pathways and Flows for Consumers

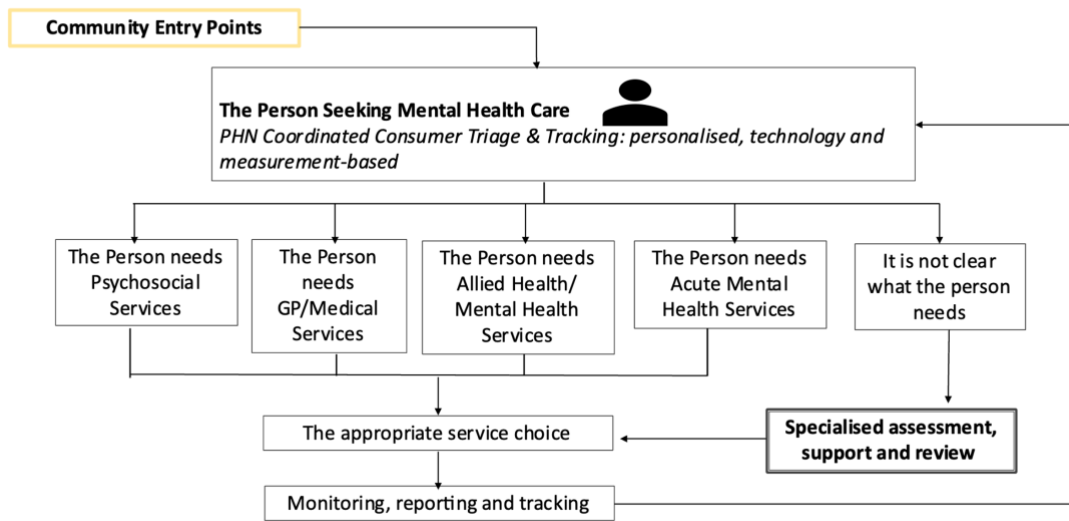
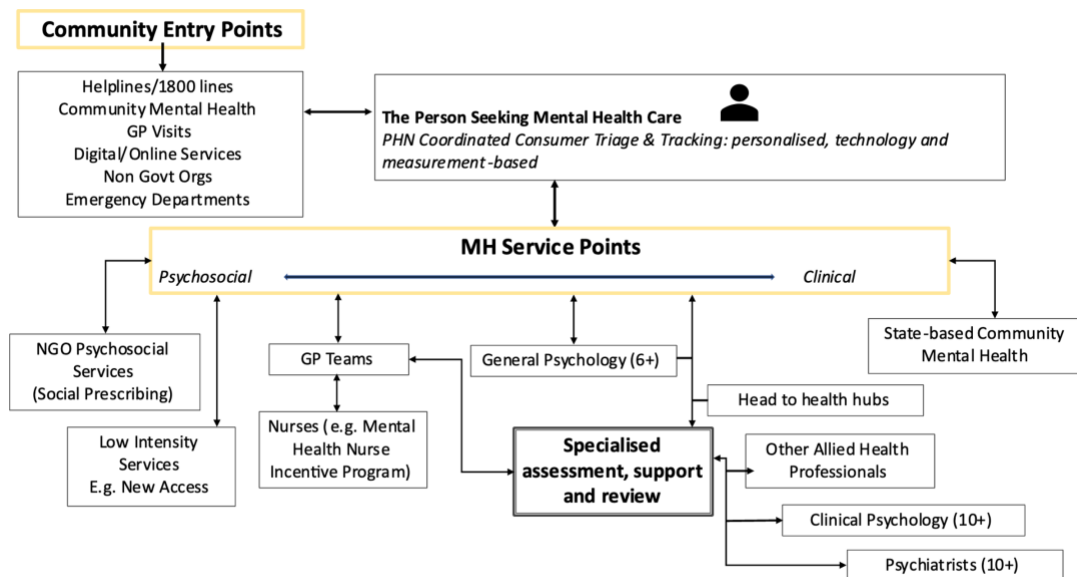


Figure 2. A New Primary Mental Health Care Ecosystem – Service Components



Introduction

...the ability to deliver integrated and coordinated care is hampered by fragmented approaches to planning and funding service delivery, the perverse incentives created by some funding approaches, and unclear division of responsibilities between different levels of government.

Productivity Commission Report 2020, p659

Recent years have seen some major investments in mental health, with subsequent evidence of some improvements in the overall rate of community access to mental health services. Most of these impacts flow particularly from the Better Access Program [3]. However, many Australians face long waits for access to mental health care, which is unevenly distributed and poorly targeted. Escalating out-of-pocket costs [4], problems and delays in access and ongoing delivery of care affect young people, older people and groups that are disadvantaged economically, geographically, culturally or socially [5,6]. Even where services are provided, their clinical and social outcomes are unclear.

The scale of the problem goes beyond the question of how to grow the mental health workforce. Merely adding more people to work in the same poorly distributed and inequitable structures is unlikely to drive necessary reform.

Rather, Australia needs a broader re-conceptualisation of what primary mental health care means, who can provide it and how is it best arranged to meet community rather than health care provider needs. Optimal models of care need then to be supported by appropriate financial systems.

Limitations of the IAR-DST

The Australian Government has already recognised these issues and the vital importance of providing Australians with better coordinated care and matching people to the right level of care to meet their needs.

The Australian Department of Health has developed an **Initial Assessment and Referral Decision Support Tool (IAR-DST)** to help clinicians (e.g., GPs, psychologists), and regional health authorities (Primary Health Networks – PHNs), to identify the broad range of mental health and psychosocial needs of individuals. The tool requires clinicians to enter information about an individual's mental health state and potential risks across multiple clinical and psychosocial domains. This information is then collapsed into a single value indicating the level of care recommended for each person: 'level 1 (self-management)'; 'level 2 (low intensity)', psychoeducation, brief interventions; 'level 3 (moderate intensity)', evidence-based psychological interventions; 'level 4 (high intensity)', moderate intensity services with and care coordination (where appropriate); and 'level 5 (acute and specialist community mental health)', psychiatric care, crisis management, and therapeutic interventions using assertive engagement strategies.

However, there is much doubt about whether this tool can adequately differentiate the various clinical and psychosocial needs of individuals presenting to services. The reduction of symptom, psychosocial needs, and personal context factors into broad categories of mental health care risk provides little differentiation and guidance about an individual's specific service needs – or who (professionals) or which organisations are best placed to respond.

For example, the IAR-DST provides little differentiation between the need for specific clinical care that requires mental health interventions delivered by mental health professionals (e.g., psychologists and psychiatrists), from the need for allied medical services for comorbidity (e.g., physical health, substance misuse) delivered by GPs, nurses, and drug and alcohol workers, or from other psychosocial needs requiring more social, welfare, employment, housing support.

So, while the goal of more accurate assessment and treatment is acknowledged, Australia's current mental health system lacks the scalable infrastructure to assess a person's current and ongoing needs consistently or accurately. This is a recipe for ongoing waste and ineffectiveness.

Aim of this report

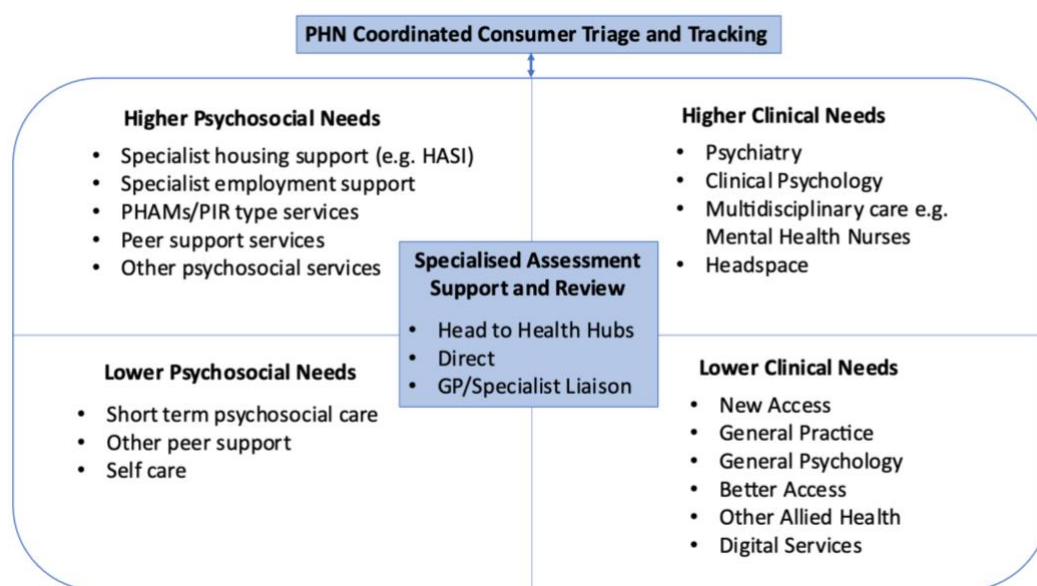
This paper presents a viable alternative to address this issue, using Patient Reported Outcome Measures (PROMs).

First, we present key features of this new mental health ecosystem (Figure 3), to be implemented regionally. In addition to these elements, central to the establishment of a new, deeper primary mental health care service system is the restoration and expansion of some services previously deployed and evaluated as effective.

Regional Configuration of Primary Mental Health Care Across Consumer Needs

Figure 3 shows the components of a better organized primary mental health care system, to be implemented regionally and reflecting people's different needs. Recognition of the complementary but different roles to be played by clinical and psychosocial services is essential. How these roles work together, from an organisational and funding perspective, will require further consideration and development, though there are useful precedents from some Australian jurisdictions.

Figure 3. Regional configuration of primary mental health care



Several of the services identified already exist. Others existed previously but, despite being evaluated as effective, for one reason or another were defunded, such as **Partners in Recovery**, **Personal Helpers and Mentors** and **Mental Health Nurses**. Others exist and can also draw on solid evidence, but are only available in very few places, such as **New Access** and **HASI**. While others may be more available, such as headspace and peer support, these services are often dogged by long waiting lists and workforce shortages, **impeding their capacity** to fulfil the roles originally designed for them. All these services are known and tested. Their (re)establishment as part of this new, deeper mental health service ecosystem would contribute significantly to increasing the range of options available to people and their families, as well as to referring clinicians.

Australia has led the world in the development of digital mental health services, pioneering effective online therapies [7]. Deployment of these services, as stand-alone or in conjunction with other face-to-face service options will be vital, given the pressure on the mental health workforce. They are the most easily scaled services and also have a significant capacity to overcome both geographical and financial disadvantage.

The Primary Health Network role

PHNs are still small players in mental health, accounting for only around 10% of total federal expenditure (less than 5% of total national mental health spending). Their role is dwarfed by Medicare, hospitals and other private providers.

Yet as Australia's mental health system is currently configured, PHNs are best placed to provide the local coordination of the mental health system on behalf of discrete populations at a regional level. Their role is underdeveloped, despite recommendations made by the Productivity Commission and despite some areas already piloting some model of centralised access and referral ([Country to Coast Qld PHN for example](#)).

The 'ecosystem' presented here gives PHNs clear responsibility for identifying their mental health clients regionally (including users of both federal and state services), understanding their needs (already part of regional strategic plans, at least to some extent), organising the service response and monitoring delivery and outcomes. [New data sets](#), integrating both state and federal services, offer PHNs new capacity to fulfil this role, together with the wide use of patient-reported outcome measures (PROMs) as explored later in this paper.

PHNs should lead the process of consumer triage and tracking, helping people find the care they need across the spectrum of both clinical and psychosocial services.

Establishing this PHN coordination, region by region, is key to ending the 'gaps' through which Australians with mental illness regularly fall. It should also contribute to better addressing the physical health problems of those with mental ill-health.

Specialist assessment, review and support

While PHNs assume new responsibility for tracking clients regionally, the issue remains that often consumer needs are unclear or uncertain. The most appropriate or necessary treatment pathway is not obvious to those who seek care.

A core new feature of this regional ecosystem must be rapid access to specialist assessment, appropriate care and ongoing review. [Repeated inquiries](#) have determined that people still regularly struggle to have the true nature of their mental health needs understood and dealt with, leading to misdirection, disillusionment and misadventure.

This kind of specialist advice is offered in many states and territories for a very limited number of potential service users and often with a limited scope of presenting problems. Such systems use publicly-employed (and often hospital-based) specialists to assist GPs and other primary care providers with care for more acutely unwell or complex clients in the community. However, this kind of tertiary support is often only made available for a few hours each week.

There are some examples of more elaborate or generous approaches to this kind of consultant psychiatry service, such as the Primary Care Psychiatry Liaison Service (PC-PLS) trialed at [Western Sydney PHN](#), drawing on concepts such as the Wellness Support teams [developed in New Zealand](#). Discussions with colleagues in New Zealand indicate the effectiveness of this work in bolstering the effectiveness of primary mental health care better managing people with complex mental health problems in the community and forestalling hospital readmission.

This kind of specialist advice must now be made available not only to professionals but also directly to potential service users. Getting the best advice as soon as possible about what to do given your mental health needs is vital. We suggest this assessment, support and review service should be central to the role of the new head to health hubs being established across Australia, permitting direct consumer access to services to assessment services provided by psychiatrists, clinical psychologists or mental health nurses. This would increase the likelihood that people will be directed to the right service level, first time, and also monitor the effects of enhancing access to specialist services.

Psychosocial support services

The ecosystem described in Figure 2 places strong new emphasis on the role psychosocial services should play as a partner to clinical care, as part of a balanced approach to community mental health care [8, 9]. However, these services, often provided by Non-Government Organisations (NGOs), have traditionally been a peripheral element of the Australian mental health service landscape, at around 6% of total state and territory expenditure. By contrast in New Zealand these services account for [one third of all funded](#) mental health services, offering multiple service and program opportunities in the community mental health sector (including peer-run acute care) unavailable here.

Always underdeveloped, psychosocial service development in Australia has been further negatively impacted by the advent of the National Disability Insurance Scheme [10]. In its [2023 Budget](#), the Federal Government has allocated additional funds to non-NDIS psychosocial care. The development of the psychosocial sector must be a key element of any mental health services and workforce planning going forward. The Mental Health Professional Network that was put in place to facilitate implementation of the Better Access Program should be replicated to familiarise primary care practitioners with psychosocial services, local providers and social prescribing options available to them.

Patient-Report Outcome Measures Driving Better Assessment, Referral and Care

Having described key components of a new primary mental health ecosystem, we now return to the key issue of how best to improve the standardisation and scalability of the initial assessment, referral and ongoing care processes [11, 12]. As stated earlier, the existing IAR-DST system has significant limitations. We can now demonstrate how Patient-Reported Outcomes Measures (PROMs) can be used to assess a person's needs across multiple dimensions. They can generate more consistent ratings, more resistant to potential biases across settings [13-16].

Outcomes and needs can be tracked within the same digital infrastructure to provide a dynamic assessment of a person's needs over time (as opposed to static, one-off assessments at point of entry or review).

PROMs are more reliable (within individuals), scalable and easily transferred between providers, compared with clinician-dependent measures (that rely heavily on trained clinicians and ongoing education and quality control). PROMS can be utilised at low or no cost to the consumer, assuming infrastructure and coordination costs are met by regional health authorities or health care organisations.

Case study – using technology to reduce wait times in services

The following data is presented to highlight both the limitations of the IAR-DST and the capacity of PROMs to strengthen the process. It draws on experiences with the [Innowell platform](#). Innowell is a digital service platform that has been developed and evaluated through continuous health systems research, and used across thirteen locations. It provides a platform for clinical practices that facilitates full patient circle-of-care cooperation with access to clinically validated instruments, helping services better triage and escalate care.

SUMMARY: SERVICES USING INNOWELL REDUCE WAITTIMES BY OVER 50%

Two headspace services in NSW have adopted the use of the Innowell Platform to manage high demand and long wait-times for assessment and treatment. Both services have reported major reductions in the wait-times and have increased overall access to the service. Data presented below have been collected from a pre and post implementation study.

Figure 4. An overview of how services use Innowell to reduce wait times in services. The real-time scoring and escalation system is used immediately to identify 'very high needs' cases. Self-care tools and strategies are recommended for people with low needs.

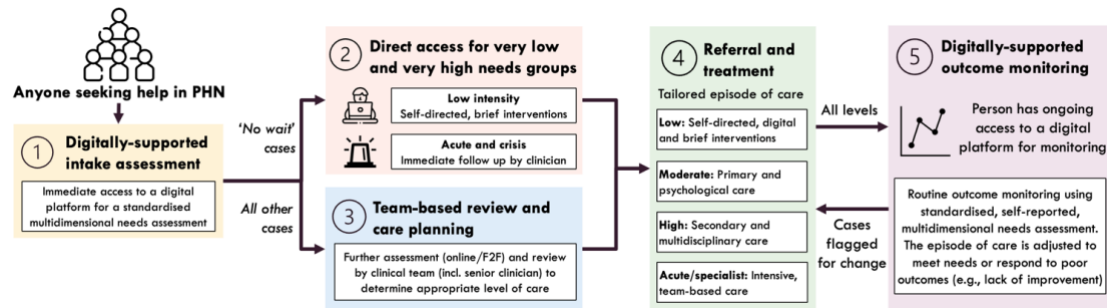


Figure 5. Wait-times for treatment planning (n=363) or psychological care (n=151)

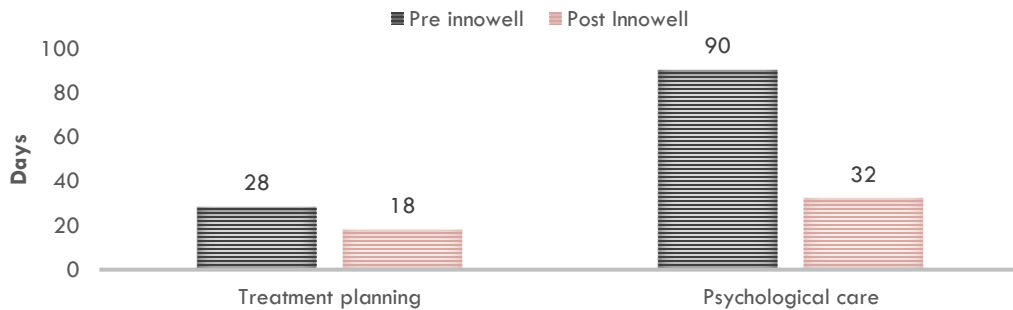
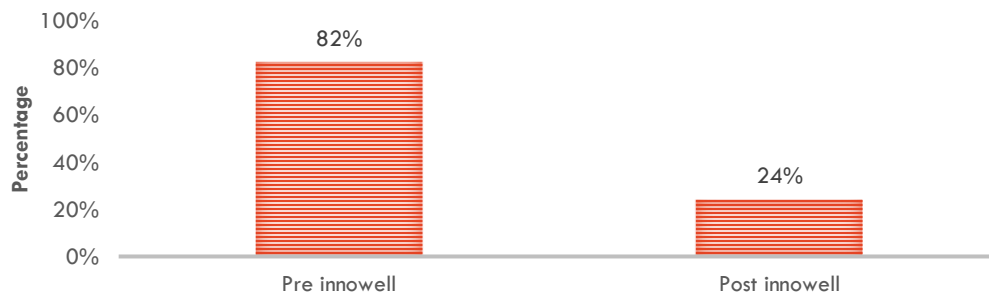


Figure 6. Percentage reporting they 'waited too long' for treatment planning (n=404)



An analysis of IAR-DST

Population

Participants were recruited from a group of young people aged between 12 to 25-years who presented to one of 11 primary care (e.g. *headspace*) services [17] from urban and regional areas of Australia between November 2018 and March 2023. All participants used the Innowell Platform for initial assessment and for ongoing care with their service. The Northern Sydney Local Health District Human Research Ethics Committees approved this study (HREC/17/HAWKE/480), and all participants gave online informed consent (via an opt out process). Parental consent was required for those aged under 14 years.

Data

All data was collected using the Innowell Platform, which is online technology, accessible via traditional computing and mobile devices, that assists the assessment, management, and monitoring of mental ill-health and maintenance of well-being [18].

The platform allows young people to complete standardised multidimensional digital assessment(s) using patient-reported outcome measures (PROMs) to understand their needs, provides real-time scoring and feedback about a person's needs and automatically escalates those cases with very high and immediate needs. It is also used to identify and set health priorities, give people immediate access to self-care tools and strategies, and facilitates outcome monitoring for those engaged in clinical care. The digital assessment makes use of a suite of mental health and psychosocial assessment tools that can be completed by the user at their own convenience (at home, at a clinic etc.). These include mental distress (psychological distress [K10], depressed mood [QIDS], anxiety [OASIS], psychosis-like experiences [PQ-16], mania-like experiences [ASRM], posttraumatic stress [PTSD5]), suicidal thoughts and/or behaviours [SIDAS and C-SSRS], social and occupational functioning [WSAS], sleep-wake cycle, social connectedness [SSSS], alcohol and substance misuse [AUDIT and ASSIST], self-harm [B-NSSI-AT], physical health and activity, eating behaviours and body image [EDE]. Demographic information (including age, sex, living circumstances, and relationship status), and history of mental and physical health problems and treatment are also collected (Appendix 1)

Approaches

1. Initial Assessment and Referral Decision Support Tool (IAR-DST)

We mapped PROMs from the standardised multidimensional digital assessment(s) to the IAR-DST logic. Recognising that single scales do not map cleanly to IAR-DST domains, we combined the recommended supporting documentation (e.g., rating guides) along with clinical and data expertise to approximate the rules. The full set of rules are schematically shown in Figure 7 and Figure 8.

2. Multidimensional index

Our alternative scoring system uses the same PROMs from the standardised multidimensional digital assessment(s) to derive a multiple domain index which summarises: (1) Clinical need – type and severity of the clinical syndrome (including harm due to suicidal thoughts and behaviours); (2) Psychosocial need – social determinants of health that require non-clinical interventions such as social, welfare, employment, housing support; and (3) Comorbid need – conditions that require allied health and medical interventions, such as alcohol or substance misuse and physical health problems. The multiple domain index can provide specific information about the

type of services required, using a weighted average for each of the domains above. A total score can also be calculated using the weighted average of the domain scores. The use of PROMs to derive these indices along with their weights are shown in Appendix 1.

Figure 7. Current IAR-DST logic based on National PHN Guidance Initial Assessment and Referral for Mental Healthcare – version 1.05

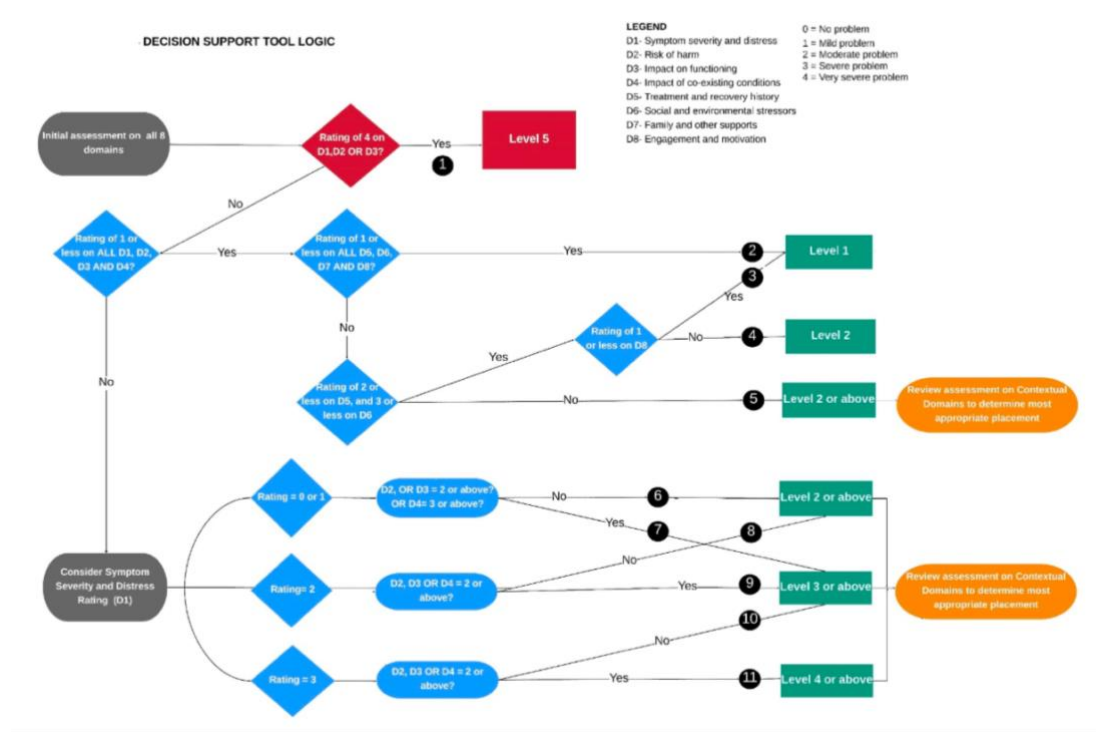
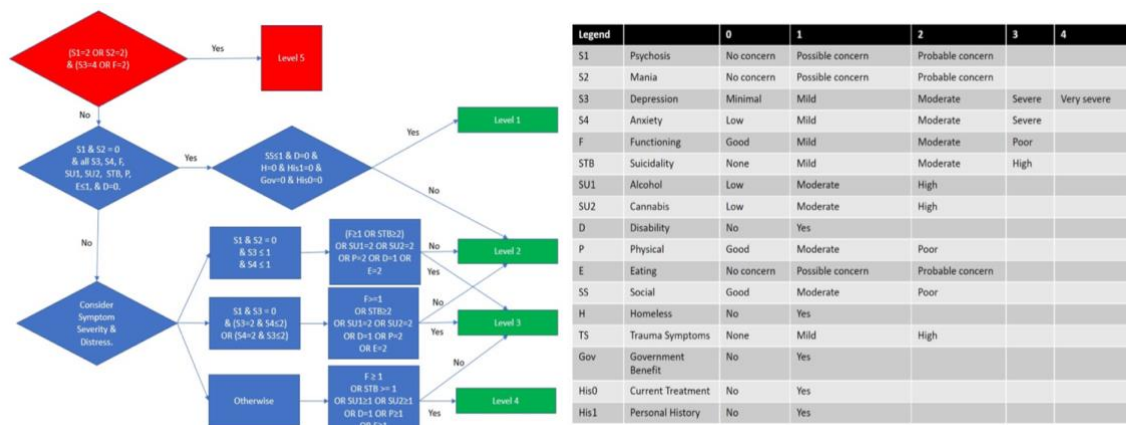


Figure 8. Implementation of IAR-DST using PROMs

Questionnaires are scored on a continuous scale and converted into categorical scores (see Appendix 1). The IAR-DST rating guide in Figure 8 was reviewed by clinicians and experts to apply these rules using PROMs collected from a digital assessment and monitoring platform being used in current mental health services (i.e., the Innowell Platform).

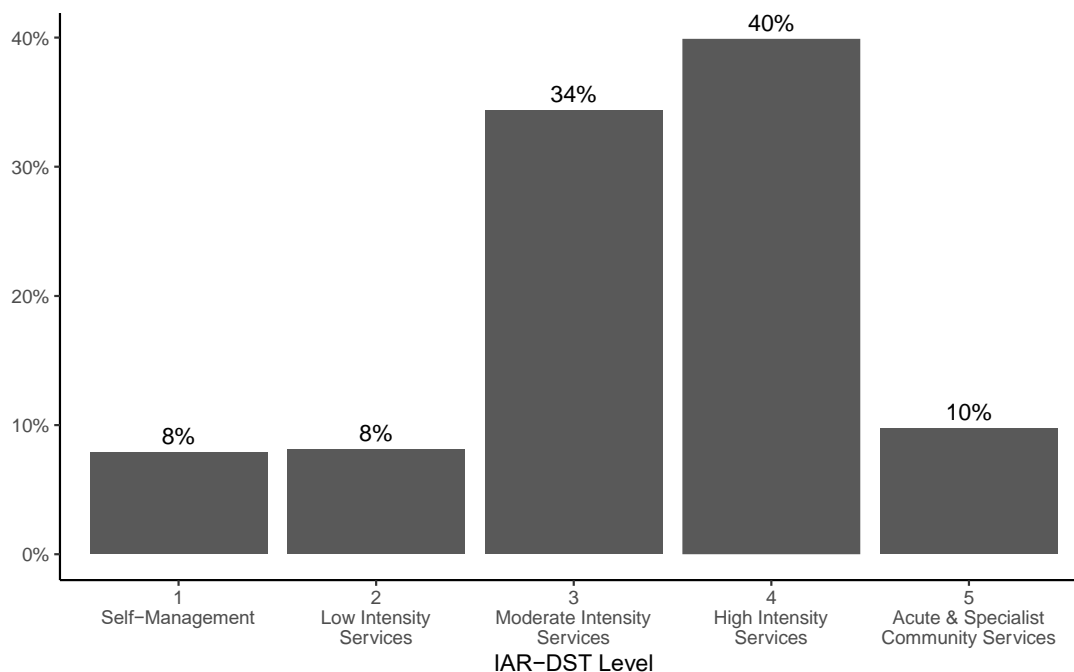


Legend		0	1	2	3	4
S1	Psychosis	No concern	Possible concern	Probable concern		
S2	Mania	No concern	Possible concern	Probable concern		
S3	Depression	Minimal	Mild	Moderate	Severe	Very severe
S4	Anxiety	Low	Mild	Moderate	Severe	
F	Functioning	Good	Mild	Moderate	Poor	
STB	Suicidality	None	Mild	Moderate	High	
SU1	Alcohol	Low	Moderate	High		
SU2	Cannabis	Low	Moderate	High		
D	Disability	No	Yes			
P	Physical	Good	Moderate	Poor		
E	Eating	No concern	Possible concern	Probable concern		
SS	Social	Good	Moderate	Poor		
H	Homeless	No	Yes			
TS	Trauma Symptoms	None	Mild	High		
Gov	Government Benefit	No	Yes			
Hi0	Current Treatment	No	Yes			
Hi1	Personal History	No	Yes			

Insight 1: Little differentiation of needs with the current IAR-DST

The distribution for recommended level of care for 431 young people with all available data is shown in Figure 9. Level 4 (high intensity services) was the most prevalent (n=172, 40%), followed by level 3 (moderate intensity services) (n=148, 34%). The remaining levels are relatively evenly split (level 1, n=34, 8%; level 2, n=35, 8%; level 5, n=42, 10%). In accordance with the Australian Government guidelines this suggests that most individuals presenting for primary care (e.g., *headspace*) services need moderate to high intensity services, with a much smaller mixture in self-managed care, low intensity care, or acute and specialist care. This finding illustrates the dilemma associated with the Better Access Program as currently configured, delivering services to a client group for whom it was never intended [19].

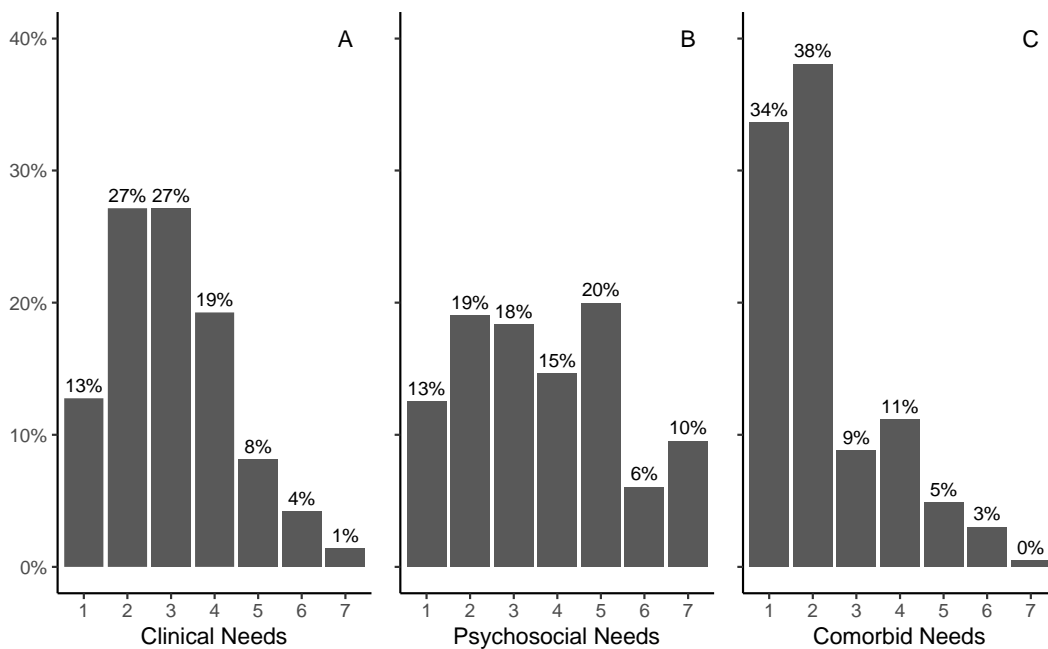
Figure 9. Distribution of IAR-DST levels of care.



Insight 2: More distinct needs emerge using a multidimensional index

The distributions for clinical, psychosocial, and comorbid needs for 431 young people with all available data are shown in Figure 10. Approximately 40% of the sample have clinical needs that are in the lower ranges ('1' or '2'), as opposed to ~13% who score in the higher range (panel A in Figure 10 below). The distribution for psychosocial needs is quite flat (panel B), while the distribution for clinical needs is left skewed with most of the population (~70%) having no or low need for allied health and medical interventions (panel C).

Figure 10. Distribution of clinical, psychosocial, and comorbid needs (n=431)

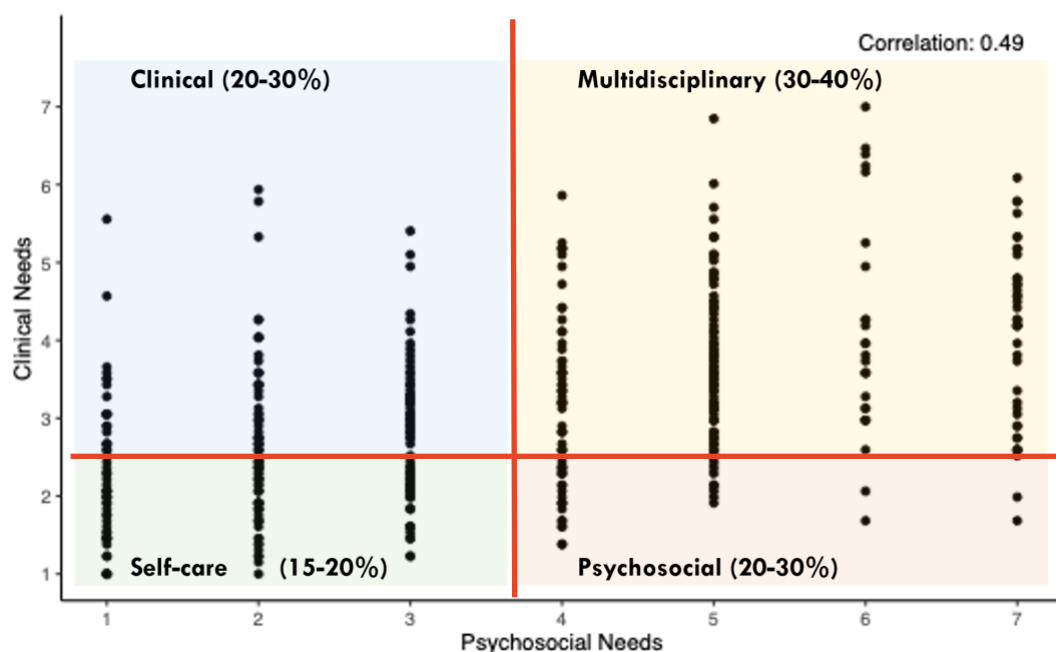


Insight 3: Differentiating clinical and psychosocial needs

The significance of meeting psychosocial as well as clinical needs has been understood for decades, but Australia has not invested in the service infrastructure to support their delivery. As stated, psychosocial services and the capacity for social prescribing remain a peripheral element of the mental health service landscape, with psychosocial service providers 6.6% of the total mental health budget [20].

Figure 11 shows the relationship between clinical and psychosocial needs. As expected, there is a moderate positive relationship between clinical and psychosocial needs ($r=.49$), so as clinical needs increase, so do psychosocial needs. Though the figure also highlights that there are some distinct groups which emerge when considering clinical and psychosocial as separate dimensions. There is a group who seems primarily to require clinical care (indicated in blue) and are likely to have distinctly different needs to those who primarily require psychosocial support (indicated in orange). Individuals from these two groups are likely to be quite distinct in their mental health and psychosocial needs, so that attempts to aggregate needs together (as happens with the IAR-DST) are likely to lose this key perspective. This is evident in Figure 11 whereby an individual from each of these groups have been selected, and despite having similar levels of 'total needs', their clinical and psychosocial domain scores are quite distinct.

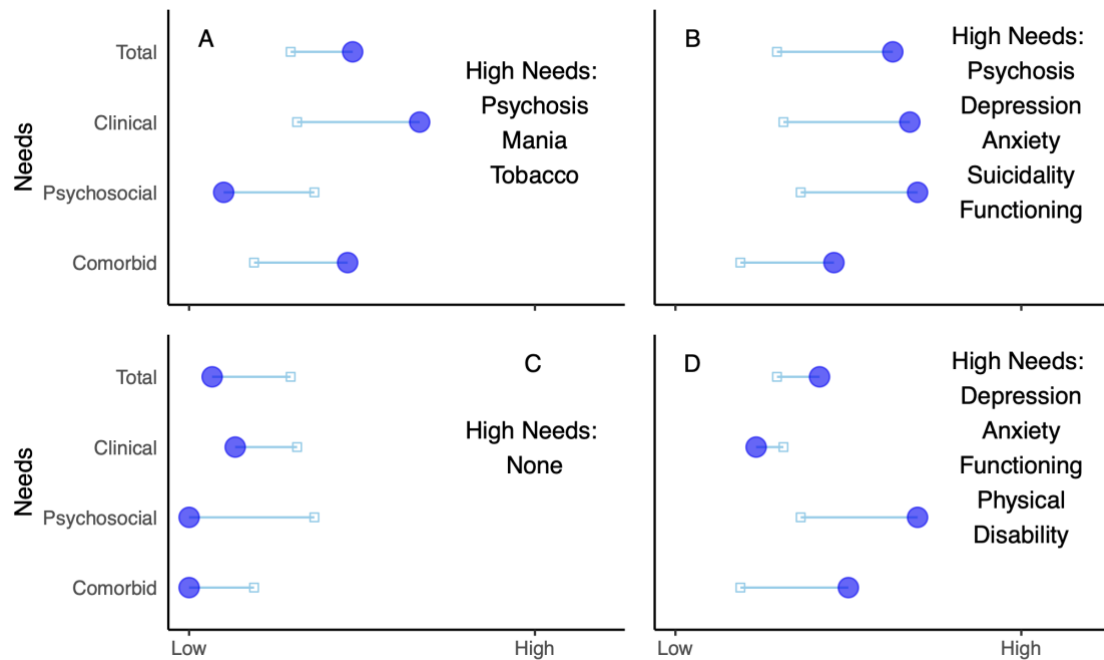
Figure 11. Four quadrants for clinical and psychosocial needs.



Also evident is a group of young people who may be suitable for self-care or brief interventions based on low clinical and low psychosocial needs (indicated in green). Figure 11 shows an individual from this group with low needs across all domains. Finally, there is a group who score high in both clinical and psychosocial needs (indicated in yellow) and are most likely to require multidisciplinary support and care coordination to address the totality of their clinical and psychosocial needs. Figure 11 highlights what this person might look like, whereby they have at-risk mental states (psychosis and mania), severe anxiety and depression as well as poor functioning.

The key insight for future service planning, particularly as it relates to the optimal use of programs like Better Access, is that only 50-70% of those who would be referred to clinical care under existing arrangements would go down that path under this guided triage system. Importantly, psychosocial services would need to be available as an alternative for 20-30%, and appropriate self-care services for 15-20%.

Figure 12. Outputs for the multidimensional index for specific individuals. This figure shows an individual's score as a dark blue circle compared to the population mean show as the light blue square. Text is used to flag specific high needs. These individuals are taken from (A) low psychosocial & high clinical needs; (B) high psychosocial & high clinical needs; (C) low psychosocial & low clinical needs; (D) high psychosocial & low clinical needs.



Accountability

One of the distinguishing features of Australia's current system of primary mental health care is the lack of systemic accountability. While individual providers may have some sense of the progress of their clients, policy makers, funders, planners and taxpayers have little if any capacity to understand if the services provided are meeting people's needs, who is missing out on care or whether desired policy outcomes are being fulfilled. GPs may use mental health Medicare item numbers to describe their work **but they may not**. GPs may review their clients using their numbers, but they may not. The recent evaluation of Better Access relied on special surveys and other instruments to discern the outcomes of care provided by psychologists and others. Regular, feedback for the purpose of systemic quality improvement is missing.

The Patient-Reported Outcomes Measures described in this paper must form part of a broader redesign of an effective system of accountability for mental health, one which permits appropriate oversight of the system as a whole. Such a system must necessarily connect with others, for example to enable better understanding of the extent to which effective primary mental health care actually prevents unnecessary hospitalisation. While the AIHW lists more than 100 individual conditions as being **'potentially preventable hospitalisations'**, none pertain to mental health.

Better, joined up mental health data would help drive integration of our system, in contrast to the current fragmentation.

Conclusion

This paper has set out the components of a new mental health ecosystem, with the aim of boosting the system's capacity, equity and quality. Many of the recommended services are not new. They have been tried and proven to be effective in augmenting Australia's primary mental health care service landscape but then, unfortunately defunded. A key new coordinating role for PHNs has also been described, as well as the vital new capacity for specialist assessment, support and review.

Digital technologies clearly have the capacity to drive greater sensitivity and accuracy in the process of initial assessment, referral and decision-support in mental health, covering both the clinical and psychosocial aspects of care. Digital technologies with the use of PROMs represent a significant opportunity to address the poor targeting, under and over-servicing which typifies current approaches to primary mental health care support. This can make a very significant contribution to improving access to mental health care for key groups, such as younger and disadvantaged people.

It should be the aim for our mental health system that every time someone seeks help for care, their needs are appropriately assessed and responded to in a personalised but standardised way, and with equity and consistency.

More of the same in mental health planning will not deliver the requisite scale of reform. More fundamental change is necessary. We hope this paper contributes to clearer consideration of how this change could look.

Appendix 1

Technology-enabled solution to youth mental health care

Digital technologies can be leveraged to provide highly personalised and measurement-based care to young people presenting for mental health care. The table below specifies the exact features that facilitate this.

Highly personalised: Mental health care that is tailored to a person’s specific needs (physical, social, emotional, biological) and preferences.

Measurement-based: Mental health care that is continually monitoring and adapting to a person’s specific needs and preferences.

Features that enable highly personalised and measurement-based care

Technology features	Details
Standardised multidimensional online assessment(s)	<ul style="list-style-type: none"> Provides consistent and comprehensive assessment of a young person’s needs and history using validated Patient-Reported Outcome Measures (PROMs). Young people have direct access to this information which prevents the need to ‘re-tell their story’ to multiple service providers.
Real-time scoring and feedback about a person’s needs	<ul style="list-style-type: none"> Automated scoring algorithms provide real-time feedback about the nature and extent of a person’s needs – across multiple dimensions. This information is presented in a dashboard that is visible to the young people and everyone in their care team.
Escalations for risk or ‘very high needs’	<ul style="list-style-type: none"> Risk notifications will alert mental health professionals if someone is identified as having ‘very high needs’ to prompt a clinical response. An ‘I need help now’ popup and button are available for those wanting access to immediate support. Local links and contacts are provided.
Identify and set health priorities	<ul style="list-style-type: none"> Young people can identify their health priorities by selecting up to 3 domains of mental health and wellbeing they would like to work on. These priorities are visible to a person’s mental health professional to promote shared and informed care planning.
Immediate access to self-care tools and strategies	<ul style="list-style-type: none"> A comprehensive library of evidence-based self-care tools and strategies have been curated and organised by health domain so young people can find specific tools and strategies they can start using immediately. This is particularly useful for people on the waitlist for assessment or treatment since they can engage in evidence-based self-care.
View, learn about and request clinical interventions	<ul style="list-style-type: none"> Evidence-based clinical interventions and strategies are visible for each health domain so a person can learn more about their available options.

	<ul style="list-style-type: none"> • People can ‘request to learn more about’ specific clinical interventions, which will notify their clinician so they can have a shared and informed discussion about the clinical intervention and its appropriateness for a persons needs.
Outcome monitoring	<ul style="list-style-type: none"> • PROMs can be repeated and visualised for each health domain so people can report and track their progress over time. • Clinically meaningful change in each domain is automatically communicated to young people and their mental health professionals. • This ongoing monitoring of needs ensures that the level of care someone receives always matches their actual needs.
Clinician and supportive other assessments	<ul style="list-style-type: none"> • Clinicians can complete validated assessments about a person mental health and their progress in treatment. • People can also invite supportive others (i.e., parent, teacher) to complete validated assessment tools to gain further insight into a person’s needs.
Team-based care coordination	<ul style="list-style-type: none"> • Young people and clinicians can view the entire care team • Everyone in the care team views the same dashboard of information which summarises a person’s needs and progress.

Note: The features presented here are currently implemented using the Innowell Platform, which is a secure, safe, accessible digital mental health tool that assists the assessment, management, and monitoring of mental ill-health and maintenance of well-being [18]. It has specifically been designed for highly personalised and measurement-based care as outlined above.

The table below shows domains and sub-domain weights that go into the total and domain scores. The total number of items needed to have a full calculation of an individual's needs is 85 (average time to complete is ~30 minutes using smart skips).

Domain	Sub-Domain	Measure (# of items)	Weight
Clinical			2
	Mania	ASRM (5)	3
	Psychosis	PQ16 (16)	3
	Depression	QIDS (16)	2
	Anxiety	OASIS (5)	1
	Eating Behaviours	EDE (5)	1
	Suicidality	SIDAS (5)	2
	Self-Harm	B-NSSI-AT (3)	1
	Mental Health History	Yes/no (1)	1
	Family Mental Health History	Yes/no (1)	1
Comorbid			1
	Alcohol Use	AUDIT-C (3)	1
	Tobacco Use	ASSIST (3)	1
	Cannabis Use	ASSIST (3)	1
	Physical Activity & BMI	IPAQ & BMI Combined (7)	1.5
	Disability	Yes/no (1)	1.5
Psychosocial			1
	Functioning	WSAS (5)	2
	Social Support	Schuster's SSS (4)	1
	Homeless	Yes/no (1)	1
	Government Benefit	Yes/no (1)	1

A screenshot of the dashboard which summarises a person's needs across multiple domains

The screenshot shows the Innowell dashboard interface. At the top left is the Innowell logo. At the top right are two buttons: "Set up video calls" and "I need help now". Below the header is a navigation instruction: "Click on a health card to find fact sheets, browse a number of care options and review your results." The main section is titled "Your health priorities" and contains a blue button labeled "Choose your health priorities". Below this, there is a grid of 16 health cards, each with an "Update answers" button and a dropdown arrow. The cards are organized into four rows and four columns. Each card displays a domain name, a current status, and a trend indicator (e.g., "Deterioration", "No Change", "Improvement") with a "1M" label. The domains and their current statuses are: Row 1: Probable concern (Eating Behaviours And Body Image, Deterioration), High (Psychological Distress, No Change), Poor (Social And Occupational Function, Deterioration), High (Tobacco Use), Moderate (Anxiety). Row 2: Mild (Depressed Mood, Deterioration), Mild (Suicidal Thoughts And Behaviours, Deterioration), Low (Alcohol Use, No Change), Low (Cannabis Use, Improvement), No concern (Mania-Like Experiences, Improvement). Row 3: Good (Physical Health, Improvement), None (Post-Traumatic Stress), No concern (Psychosis-Like Experiences), None (Self-Harm, Improvement), Good (Sleep-Wake Cycle, Improvement). Row 4: Good (Social Connectedness, Improvement).

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Conflict of Interest

IBH is the Co-Director, Health and Policy at the Brain and Mind Centre (BMC) University of Sydney. The BMC operates an early-intervention youth services at Camperdown under contract to headspace. He is the Chief Scientific Advisor to, and a 3.2% equity shareholder in, InnoWell Pty Ltd. InnoWell was formed as a joint venture by the University of Sydney (32% equity) and PwC (Australia; 32% equity) to deliver the \$30m Australian Government-funded Project Synergy (2017-20; a three-year program for the transformation of mental health services) and to lead transformation of mental health services internationally through the use of innovative technologies.

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CRICOS 00026A