

Evaluating and getting value from mental healthcare investment: Qualitative results

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Summary

Mental ill-health continues to rise in developed countries despite concurrent funding increases for mental healthcare. While the availability and quality of mental healthcare evaluations have increased, they are not consistently used for investment decisions, unlike in other health care sectors such as pharmaceuticals, where health technology assessment and systematic decision-making processes are widely used to support policy decisions.

Can existing economic evaluation frameworks be used to evaluate investment in mental healthcare, or does the evaluation of mental healthcare investments have to be done differently? Mental healthcare has characteristics that differ from those of treatments that use pharmaceuticals and medical devices. Because existing frameworks of economic evaluation were developed for these other types of treatments, it is necessary to consider if a similar unified, transparent, and systematic approach is desirable and useful in mental healthcare.

We conducted an extensive qualitative analysis with policymakers and other stakeholders within the Australian mental healthcare system, which is characterised by fragmented service delivery, limited decision transparency, and unclear investment effectiveness or cost-effectiveness. Thirteen in-depth interviews with 21 government employees were conducted. Interview data was further complemented by consultation with 70 non-government stakeholders over three workshops.

Study participants, both in the interviews and the workshops, supported a unified and transparent framework for evaluating mental healthcare programs and providing investment decision support, identified obstacles to such an approach, and suggested how obstacles could be overcome.

A common view was that a framework for making better mental healthcare investment decisions could build on existing economic evaluation frameworks but should address challenges specific to evaluating mental healthcare services.

Factors of greater importance in mental health were the need to manage greater uncertainty around treatment effectiveness and recognising the central role of mental healthcare services in delivering outcomes. Study participants also noted the need to account for increased complexity in measuring mental health outcomes relative to physical health outcomes, and the conflicting perspectives of what value means to alternative stakeholders. Significant inequities in mental health and access to mental healthcare were also seen as important and needed consideration in economic evaluations and investment decisions.

The central importance of the perspective of individuals with a lived experience was recognised by all stakeholders in evaluations and treatments, and current frameworks were seen to give too little weight to this perspective.

Introduction

Mental ill-health is of increasing concern for governments worldwide. More than 1 billion people were affected by mental health and addictive disorders, with prevalence increasing from 4 percent to 12 percent between 1990 to 2016. (Rehm and Shield, 2019) Mental ill-health is a main contributor to the overall burden of disease across the world. (Vigo et al., 2016)

Mental healthcare use has increased significantly over the past decades, (Pierce et al., 2021) mostly from an increasing prevalence of internalised problems such as depression among younger adults, which have outbalanced decreasing rates of externalising behaviours and relationship problems.¹ (Mojtabai and Olfson, 2020) Self-reported mental ill-health among younger adults was rising for decades but accelerated during the Covid-19 pandemic. (Pierce et al., 2021) As the onset of mental ill-health is often during adolescence and can persist throughout a lifetime, (Patel et al., 2007) the prevalence of mental ill-health will likely further increase if trends among younger people continue.

Although mental healthcare service use and public funding for mental healthcare have increased, the prevalence of mental ill-health continues to rise. For example in Australia, where we collect our data, self-reported mental ill-health has increased despite per capita public expenditure on services increasing by 18 per cent between 2008 and 2020. (Australian Institute of Health and Welfare (AIHW), 2022, Australian Bureau of Statistics (ABS), 2008, Australian Bureau of Statistics, 2022)

Australian mental healthcare is financed and delivered within the public and private systems. In the public system, the federal government pays for services delivered by public providers such as public hospitals and community care, and some private services commissioned by primary health networks. State governments partially fund (with the federal government) psychiatric care delivered in public hospitals and other community based mental healthcare services.

The private system comprises general practitioners, psychologists, psychiatrists, and other mental healthcare service providers delivering care in the community. Many encounters with patients are funded by a combination of federal government subsidies delivered through Australia's universal

¹ Not all studies confirmed an increase in need, suggesting most research has relied on self-reported measures of need or utilisation data, which may not reflect true need.

health insurance program called Medicare, and copayments made by patients. Limits for the overall number of encounters apply, after which individuals pay for treatment out of pocket or through their private health insurance (if they have purchased insurance that covers this type of care). A comparatively smaller number of encounters, although still significant, are funded by other private insurance products, such as workers compensation schemes, and income protection schemes.

Psychosocial services for people with a disability resulting from mental ill health are also delivered by private providers but funded by the federal government through the National Disability Insurance Scheme.

Private health insurance pays for psychiatric care in private hospitals, although individuals are still required to pay an excess and may also face large copayments. Some contracts may exclude mental healthcare services, and there are sometimes delays in accessing benefits after purchasing insurance. Private health insurance premia are community rated so individuals cannot be excluded from purchasing any insurance product and will pay the same premium for coverage regardless of mental ill health.

Together, this creates a complex funding and service provision landscape with a multitude of payers and providers, and a multitude of funding streams from state, territory, and federal governments, private insurers, and patients. Access to care can therefore vary according to where an individual lives and their ability to pay.

The Australian Productivity Commission described a lack of transparency in mental healthcare investments, a fragmented approach to service provision, and inconsistent use of evidence on service effectiveness and cost-effectiveness. (Productivity Commission, 2020) It recommended implementing a more systematic, evidence based, and unified approach to investment in mental healthcare, to promote efficient improvements in mental health and wellbeing. (Productivity Commission, 2020) Others have also argued the distribution of public mental healthcare services must be more equitable and better address key mental health challenges. (Rosenberg and Hickie, 2019)

Economic evaluation that uses a common methodology promotes more efficient spending, helping maximise population health and wellbeing. There is little controversy in Australia, Canada, and the UK that systematic use of health technology assessment can help governments achieve value for money from their investments. (Banta, 2003) Their use of health technology assessment is widespread to evaluate pharmaceuticals and medical devices. A common evaluation methodology

helps decision makers compare investment options without the evaluation method itself confounding outcomes. (Panteli and Busse, 2019)

The lack of a common approach to deciding upon mental healthcare investment observed in Australia is also endemic to other health care systems. In the United States, for example, resources are invested in ineffective programs because there is no systematic approach to evaluating mental healthcare investments, and evaluation outcomes are not systematically incorporated into investment decisions. (Horvitz-Lennon, 2020) A framework for systematically evaluating and deciding upon often competing mental healthcare investment options is useful, but simply applying methods and decision processes used for pharmaceuticals and medical devices appears inadequate.

Unique characteristics of mental healthcare services, such as a potential lack of randomised clinical trials and large uncertainty when attributing the effect of services on outcomes, means a unique framework is needed. There may also be a greater need to consider inequities in mental health and in the evaluation of mental healthcare that addresses this need. (Knapp and Wong, 2020)

Our study proceeds from understanding *what* is needed to improve mental healthcare investment decisions, to understanding *how* to improve investment decisions based on a systematic, transparent, and evidence based approach.

It considers how existing economic evaluation methods and decision-making processes could be adapted to improve mental healthcare service investment decisions. A framework is built on an extensive collection of perspectives using thirteen interviews with multiple government stakeholders in Australia, who are responsible for managing services at the state, territory, and federal levels. These perspectives are complemented with non-government stakeholder perspectives collected from three national online workshops, and 12 written submissions.

Government and non-government stakeholder perspectives are collated into meaning using thematic analysis and Schema analyses to synthesize differing perspectives. (Flick, 2004) Meanings are compared to insights from the academic literature on mental healthcare provision and need, providing further context and structure for the qualitative analysis. The general questions used in the qualitative research and the similarities in challenges faced by other countries when deciding how to invest in mental healthcare, means insights from this study can be applied beyond the Australian context.

Our study contributes to the literature on how to use a system of economic evaluation to support investment decisions and can inform governments on how to adapt common health technology

assessment frameworks and decision-making processes to mental healthcare. Previous research highlighted that unification and harmonisation of health technology assessment procedures are not always beneficial. For example, evaluations may not reflect local area or population-specific idiosyncrasies, and using quality-adjusted life years (QALYs) to proxy health outcomes may primarily suit evaluations of pharmaceuticals rather than other types of healthcare. (Panteli and Busse, 2019)

The risk of using outcome measures unrelated to value is significant in mental healthcare. Commonly used health related quality of life survey instruments, including the EuroQol Five Dimension (EQ-5D) and the Short Form Six Dimension (SF-6D) tools, are insensitive to capturing meaningful changes in mental health during rehabilitation, (Murphy and van Asselt, 2020) and may therefore be inadequate for evaluating mental healthcare interventions. (Connell et al., 2014) While the Recovering Quality of Life (ReQoL) tool was specifically developed to assess the quality of life for people experiencing mental ill-health, the risk of excluding non-health outcomes that are valued by consumers remains. (Brazier, 2008)

Our study therefore contributes to research that describes barriers to using economic evaluations in mental healthcare and offers ways to overcome these barriers. Economic evaluations have become increasingly common in mental healthcare over time (Evers et al., 1997, Murphy and van Asselt, 2020, Byford et al., 2003). However, methodological advances appear needed as many economic evaluations in mental health continue to apply techniques and outcome measures that were developed to inform whether to subsidise new pharmaceuticals.

Economic evaluation methods should be informed by new knowledge on how to evaluate different forms of care. (Shah et al., 2014) Our study highlights that further research is needed on identifying and measuring appropriate outcomes that reflect mental healthcare consumer preferences, such as capabilities and functional outcomes. By collecting government and non-government stakeholder perspectives, our study demonstrates the need to incorporate labour market outcomes, social participation, and independence of individuals with mental ill-health, their families, and carers. It offers a potential framework for doing so within an evaluation environment that often cannot rely on data from randomised controlled trials, comes with large decision-making uncertainty, and requires considering inequities in access to care.

Methods

A national consultation process was implemented between August and November 2023 that included semi-structured interviews with senior executives within state, territory, and federal health departments, The Treasury, and mental health commissioner offices. Three national online

workshops were also conducted with non-government mental health stakeholders, including providers, peak bodies, consumers, carers, and academics.

Government stakeholder perspectives collected from interviews were analysed using thematic analysis, a systematic method that codes qualitative data into themes to extract meaning by identifying, analysing, and interpreting patterns. (Clarke and Braun, 2017) Non-government stakeholder perspectives from the three workshops were analysed using Schema analysis, a systematic way of summarising and then offering a clear and succinct presentation of the essential elements within an original text. (Rapport et al., 2018a) The Schema analysis employs group-working activities with a research team to reveal essential textual elements in the qualitative data to enable the research team to interpret and form a consensus view on what data mean.

Following both thematic and Schema analysis, results can be triangulated into a composite whole to bring together key issues arising across all datasets, (Flick, 2004) while ensuring datasets are in alignment with one another. (Rapport et al., 2018a)

Data

Interviews

Targeted emails were sent to every Australian state, territory, and federal health department and mental health commission to recruit stakeholders for the interviews. Sampling was purposive and identified government employees in leadership positions at all relevant federal and state departments and bodies responsible for mental health services. Initial emails were sent to 53 contacts at the relevant agencies on 28th June 2023 to ascertain appropriate individuals for the interview. These contacts were identified through web-based searches. Formal invitations were then sent to 45 individuals between the 3rd and the 14th of August 2023, and follow up emails were sent on the 17th of August and the 12th of October 2023.

Interviewees mostly held Director, Executive Director, or Commissioner-level roles at their respective agencies and provided general responses and views based on their experience and expertise. Twenty-five individuals consented and attended an interview; 21 were from state and territory agencies, and four were from federal agencies.

Thirteen semi-structured interviews were undertaken between September and November 2023. The purpose of the interviews was to understand stakeholder perspectives on a unified and transparent investment framework that had been presented in a publicly released consultation paper. (Cutler et al., 2023) Each participant was sent the consultation paper and a list of potential questions before the interview. Interviews adopted an iterative approach, (Denzin and Lincoln,

2011) with questions from early interviews refined as necessary for later interviews to maximise information gathering, ensure clarity, and the collection of sufficient information on any given topic raised in the interviews. The interview guide is included in Appendix A.

All interviews were conducted online via Zoom. Each interview was led by one researcher (JF or HC) and lasted between 45 and 60 minutes. Both interviewers were senior academic health economists. Additional members of the research team attended interviews as observers (AN, AB, JF) to take notes on body language and other non-verbal cues to respondent views, with each interview by at least one interviewer and one observer.

The interviews commenced with questions regarding the case for exploring value-based payments and alternative approaches to investment in mental health within the context of recent reform agreements in Australia. The remainder of the interview examined details of current payment frameworks and consideration of value-based payment and investment frameworks with a particular focus on policy and governance.

Workshops

Three national online workshops were held between September and November 2023 to collect non-government stakeholder views on reforming mental healthcare investments. Emails were sent to potentially interested individuals identified through academic mailing lists, mental health commission contact lists, four large research, and consumer organisation contact lists; five provider contact lists; and 442 individually identified points of contact that included consumer organisations, provider organisations, academics, regional health care organisations, and others. These contacts were identified from the publicly available list of stakeholders that had made submissions to the Productivity Commission Inquiry into Mental Health.

Following these invitations, 38 participants registered for workshop 1, and 36 registered for workshop 2. From the individuals registered, 25 participants (i.e., 66% of those who had initially registered) attended workshop 1, and 24 participants (67% of those who had initially registered) attended workshop 2. Participants self-identified as being part of advocacy, consumer, and support groups (16), providers (18), peak body representatives or other stakeholders (5), and academic researchers (10).

Online workshops lasted two hours and were chaired by a senior researcher (HC or JF). The workshops were delivered in three sequential parts. The first part delivered a short presentation of the consultation paper on the current mental healthcare funding policy environment, (Cutler et al., 2023) the purpose of our research, and how the research outcomes would fit into the current

funding policy debate. The second part delivered a short presentation on different ways to define and measure value and then presented a set of three questions to the group of workshop participants for discussion.

The third part of the workshop delivered a short presentation on the proposed mental healthcare funding and investment framework derived from the consultation paper and then presented eight questions for discussion (see Appendix B). Participants discussed each set of questions within breakout rooms with smaller groups of 5-7 participants and curated by one researcher in each room (JF, AB, AN, MA) and subsequently as part of a full group discussion in the plenum hosted by a senior researcher.

A third workshop was conducted that focussed exclusively on consumers and carers, following the same structure as the first two workshops. The decision to add a third workshop was based on the observation that perspectives of lived experience groups were described as central in workshops 1 and 2, but that consumers and carers often did not manage to substantially contribute to the relevant group discussions.

Recruitment for workshop 3 was mainly undertaken through public advertising. An advertising campaign via Facebook and Instagram was conducted for 11 days, reaching 46,878 individuals, of whom 811 clicked on the advertisement, and 8 registered for the workshop. Lived experience organisations were also asked to advertise the workshop to their members. Other channels mentioned by individuals who registered were LinkedIn (8), direct email (18), word of mouth (4), and other forms of direct referral (5). Of the 43 individuals who registered, 21 individuals (49%) participated in workshop 3.

Thematic analysis

All interviews were electronically recorded after consent. Recordings were transcribed verbatim and subsequently analysed using a phased applied thematic analysis approach. (Guest et al., 2011)

Familiarisation: After transcription, four researchers (AN, JF, AB, FR) individually analysed the first three interview transcripts before discussing their initial ideas as a group. Data saturation was expected to occur before the final interview took place. The senior qualitative study researcher (FR) advised that coding may cease before the full dataset was analysed if the research team was confident that data saturation had already been achieved and no new codes were arising.

Generating codes: One member of the research team (AN) combined the four individual analyses of the initial data following group working, ensuring consensus had been attained on the key codes. These were compiled as an initial list of codes.

Constructing themes: Three members of the research team (AN, JF, FR) grouped the codes. The remaining ten interview transcripts were analysed by two researchers (AN, JF) with reference to the two frameworks, and additional codes were added to the frameworks. Data saturation was monitored through regular discussions between three members of the research team (AN, JF, FR). Data saturation appeared to be reached around the tenth interview; however, coding continued for all 13 interviews to ensure the perspectives from federal agencies and smaller state and territory agencies were captured within the frameworks.

Reviewing themes: After all interviews were analysed, the two thematic frameworks (funding and investment) were reviewed and refined through discussion and debate at a further thematic analysis group working session attended by all team members (AN, JF, AB, FR, MA, HC), as recommended as good practice. (Saunders et al., 2023)

Defining themes: After the two frameworks were finalised, the themes were defined, named, and illustrated by salient, concomitant categories and verbatim quotations. Each quotation was attributed to one of the 25 government employees interviewed across the 13 semi-structured interviews.

Schema analysis

All workshop discussions were electronically recorded. Recordings were transcribed and used for a Schema analysis, (Rapport et al., 2018b) a qualitative approach to data analysis that was developed as a refinement of summative analysis and has been used in a wide range of contexts of research in health care. (Rapport, 2010, Rapport et al., 2019)

Schema analysis lends itself to workshops or other group events where more than one person is involved in answering questions. It captures the overarching ‘flavour’ of respondent views, by deriving a schema across participant opinions. Three primary stages were used within the Schema analysis undertaken with these workshop transcripts. First, constructing individual researcher Schemas (one from each researcher) that are brief and succinct. Second, undertaking group work to develop a longer group or ‘Meta-Schemas’ (one for each workshop). Third, interpreting, discussing and, finally, reaching group approval of the final Meta Schemas. (Rapport et al., 2018b)

Four researchers (AB, FR, JF, MA) first individually summarised the discussion of workshop questions into individual Schemas for each workshop. A synthesis of individual Schemas was subsequently created in Meta-Schemas that focussed on defining value and a unified process of evaluating investments in mental health to identify investments providing the greatest value. The

Meta-Schemas were drafted by one member of the research team (AB) and subsequently refined through discussion and debate that led to consensus among all researchers.

Results

Themes

Table 2 presents the four key themes identified in the analysis of interview data, along with their concomitant categories. Each theme is subsequently described in detail according to its categories and supported by quotes from the interviews with government stakeholders (as indicated in square brackets following each quote).

Themes were based on answers to questions on a unified, transparent, and consistent framework for evaluating investments in mental health, and illustrated in an overview published in the consultation paper. (Cutler et al., 2023) The framework aimed to evaluate large investments, although not defining ‘large’ using a dollar value. Furthermore, the report suggested that the framework would primarily be used for investments that required a partnership of funding or service provision between Australian state, territory, and federal governments.

Table 2: Themes resulting from the thematic analysis

<p>1. Perspectives on and measurement of outcomes and value</p> <ul style="list-style-type: none"> • Different perspectives on outcomes • Measuring costs • Patient-focus 	<p>3. Roles of the evaluating institution</p> <ul style="list-style-type: none"> • Promotion of equity • Quality assurance and capability development • Adaptability of the evaluation process • Integration of investments into strategic planning
<p>2. Complexity and uncertainty in mental healthcare</p> <ul style="list-style-type: none"> • Variability within and between individuals • Complexity of care • High residual uncertainty after treatment 	<p>4. Within-stakeholder competition</p> <ul style="list-style-type: none"> • Competing levels of government, policy makers, and political parties • Competing workforces • Competing public and private health care providers and payers

Perspectives on and measurement of outcomes and value in mental health

Stakeholders highlighted that perspectives on what would constitute good mental health outcomes, and what defines value differs between different stakeholder groups. However, the patient perspective in driving a good outcome was acknowledged and given greater importance relative to other perspectives.

Different perspectives on outcomes

Interviewees pointed out that the relevance of different outcomes differs between patients, providers, government employees, and society.

‘Absolutely, we should be moving towards better experiences, better outcomes, more cost effectiveness, all of those kinds of markers of value, they mean different things to different people.’ [Government employee (GE) 4]

‘Different agencies will value different outcomes above others. So the government will be pleased if they’ve reduced the pressure on EDs and on inpatient beds and save money. Whereas you know, our consumers might, would value being connected to society, having a job, and having a meaningful life.’ [GE 13]

An important role of the agency evaluating different investments would, therefore, be to identify and define a common set of outcomes that is meaningful and accepted by a wide set of diverse stakeholders.

‘If there were some substantial outcomes that we could take forward more at a whole system level, then that would certainly be useful information to have, to present to government, to service providers, and to be able to move forward in a much more systemic, consistent approach.’ [GE 17]

Measuring costs

A similar issue also applies to measuring costs, to evaluate outcomes achieved relative to the opportunity costs of an investment. Reliable data on costs is therefore required to determine the value of potential investments concerning the outcomes achieved.

‘It kind of underscores the needs to get to at least a better data collection’ [GE 25]

Furthermore, investments may affect who bears the cost, and the cost to various stakeholders needs to be considered in the evaluation of potential investment, ideally taking a social perspective, as cost savings from improved mental health outcomes may not be realised by those paying the cost of investments.

‘Investment into the health dollar will only be optimised if someone has a safe, stable place to live and all those other elements... Or that other one which is that kind of diagonal accounting thing which is, “Well we’re investing in health but the outcome’s in school retention and school outcomes. Or the outcome is in employment. Someone’s more engaged in employment as an active participant so we’ve got a tax revenue base.” [GE 19]

Patient-focus

While stakeholders acknowledged that there were diverse views on relevant outcomes and costs, an almost universal view was that patient and consumer *lived experience* perspectives were central and carried great importance for the measurement of outcomes and value. Many stakeholders argued that the patient perspective should be given equal or greater weight than other perspectives in the definition and evaluation of relevant outcomes and value of investments.

‘I think there’s significant benefit to be gained from looking at outcomes and particularly looking at outcomes that are of importance to consumers and their carers.’ [GE 10]

‘If you achieve value for the consumer, the patient, the client, whatever you call it, if they achieve value, then I suspect if you look at the evidence, the system will achieve value.’ [GE 17]

Complexity and uncertainty in mental healthcare

Stakeholders discussed the uncertainty in mental healthcare related to diagnosis, mental health trajectories, treatment effectiveness, and post-treatment outcomes. This uncertainty leads to much greater complexity in economic evaluation compared to pharmaceuticals and medical devices. The greater contributing role of social determinants of mental health further increases this complexity and affects the outcomes that need to be considered.

More comprehensive and holistic approaches to care were therefore frequently advocated, allowing to address the social causes of mental ill-health. A unified framework for evaluating mental healthcare investments therefore needs to address the greater uncertainty and consider health and non-health outcomes valued by consumers. Finally, stakeholders highlighted the need for a greater role of post-implementation evaluation to manage the balance between decision uncertainty and the need to implement and trial innovative mental healthcare services.

Variability within and between individuals

Stakeholders highlighted the variability in treatment effectiveness between individuals with the same diagnosis, their treatment acceptance, and changes in their mental health condition over time.

'We still don't have really good evidence about diagnosis and about treatment efficacy [...] why certain drugs work for some people and not for others.' [GE 10]

'People's state of wellness in mental health is not usually static. People travel up and down on a recovery continuum.' [GE 15]

Stakeholders ascribed a greater importance to social factors to determine mental health and wellbeing relative to the primary importance of biomedical factors that determine physical health conditions.

'Mental illness is a good example of where there's a big interplay between social and health outcomes' [GE 1]

'I think once we talk about value, you're talking about outcomes, when you talk about outcomes, there's all the social determinants of health, not just the provision of health itself.' [GE 5]

Complexity of care

Stakeholders emphasised that evaluating mental healthcare services can be more complex relative to evaluating pharmaceuticals or medical devices. This is because mental healthcare is tailored to individual needs and preferences, compared to pharmacotherapy or medical devices, where the treatment is mostly uniform. Consequently, the evaluation of a plurality of treatment pathways can increase evaluation complexity and data needs.

'That's another complication in mental health is, are there more, is there more tailoring required than you might see in other fields of medicine.' [GE 10]

'You're moving away from things that go "beep" and things that you swallow or inject, and that you look at models of care.' [GE 25]

Stakeholders noted that mental healthcare investment decisions should consider more holistic approaches wrapped around consumers and spanning multiple health and non-health sectors, such as housing, employment, social support, and other services that impact mental health outcomes.

'You could have funding flexibility for services to wrap care around a patient based on their needs, in order to achieve better outcomes' [GE 2]

'If you think about the chronic disease model, and the complexities of social determinants, there's a whole bunch of things in mental health we need to fund that aren't mental health, per se.' [GE 16]

High residual uncertainty after treatment

Stakeholders recognised that the potential effectiveness of mental healthcare is highly uncertain for innovative mental health investments when presented to the government for investment. A more explicit role for post-market evaluation of investments was therefore recognised, while stressing the need for sufficient time for providers to adjust and embed new care models, to ensure certainty of funding during the implementation and evaluation phase, and for certainty of funding if the intervention is valued by consumers and is deemed cost effective. There was some consensus that a minimum of five years was needed to build, embed, and evaluate a new mental healthcare service.

'I think pilots are OK. But we've got to build pilots in the situation where there's got to be a government, or somebody's, commitment to continue this beyond the pilot, if it's successful.' [GE 17]

'The minimum would be for five years, surely, because you've got to build it up, get it going, embed it, evaluate it.' [GE 1]

Stakeholders also noted the need for additional resources to support ongoing evidence collection and evaluation associated with pilots.

'Getting the evidence base for governments to commit and invest, if the pooling of funds or however it's going to work.' [GE 3]

Finding the right outcome measures to be collected was again mentioned as critical in the context of ongoing evaluation, as was the complexity of attributing outcomes to a specific component of care.

'There's no standardisation, outcomes are really hard to define and measure. So this would be pretty important for improving on all those parts.' [GE 3]

Roles of the evaluating institution

Stakeholders identified different roles required for any institution evaluating mental healthcare investments. This included the promotion of equity, quality assurance, and the integration of investments into strategic planning. Stakeholders noted additional roles specific to evaluating mental healthcare, including building evaluation capability, and developing a process to ensure

evaluation methods are appropriate for assessing regional needs and can be used for small-scale investment, even if these are not of sufficient scope to be evaluated within the unified framework.

Promotion of equity

The need to address regional and social inequities in mental health, workforce availability, and the access to and use of care was prioritised by stakeholders. Therefore, equity would need to be incorporated into the process of evaluation or use different criteria for evaluation for priority or underrepresented populations.

‘Appreciating the nuance of some of these really specific groups [in regional and remote areas]. And also, I guess, that equity conversation about how do you better apportion resources to these really needy groups?’ [GE 16]

‘I haven’t mentioned the culturally and linguistically diverse group as well. [...] To make a mental health service appropriate for those groups, there’s a particular nuance that you need. And you need someone to be telling the advisory committee that. So I think diversity is incredibly important. And it’s not that tick box diversity.’ [GE 22]

Quality assurance and capability development

A primary advantage of a unified approach to evaluating mental healthcare investments that is systematic, transparent, and uses defensible criteria for evaluation and investment decisions, as viewed by stakeholders, was that it would increase rigour, accountability, transparency, and independence of evaluations. It would also increase evidence-based decisions and make investment decisions in mental health and health overall more consistent.

‘There’s definitely a case for having really rigorous evaluation built into what you do because that’s really important to make sure that we’re investing in the right place and can redivert or change things if needed.’ [GE 13]

‘There needs to be accountability for the investment decisions in mental healthcare.’ [GE 15]

Stakeholders suggested different factors must be considered when investing in mental healthcare. The broader impact of mental healthcare on communities suggested an investment decision process should capture impacts other than individual clinical outcomes. Furthermore, as mental health innovations often emerge out of small trials or community-level approaches, the evaluating institution should also support the development of capacity in the sector, including local initiatives, to evaluate mental healthcare.

'Evaluation is something we very rarely get to. It doesn't mean we don't value it. It just again means not enough capacity, [...] and so we tend to do quite quick internal evaluations.' [GE 22]

Adaptability of the evaluation process

Stakeholders suggested the investment decision process should incorporate heterogeneous circumstances across localities and be able to support small, urgent, local, organic, bottom-up, and innovative programs. This appeared particularly important because there was no threshold for investment that determined whether they should be evaluated within or outside the unified framework that was universally agreed upon by stakeholders.

'At least as like a reference document to an extent [...] as this is kind of co-commissioning that is at the federal level, it is a very kind of cookie cutter approach, so you lose some of the nuance [...] outside that normal process [...] it would really struggle to apply those co-commissioning guidelines [or] investment pathway' [GE 23]

Stakeholders suggested that investment decision guidelines could be developed that could be tailored to the size of the investment being considered by decision makers. There was consensus that a risk-based approach to deciding when to apply the investment decision process should apply.

'I think you'd have to have some threshold about the level of investment, or how innovative, or some threshold around what would warrant an external independent evaluation, versus something that could be done maybe by the sponsor or the provider.' [GE 18]

'20 million is peanuts to the [federal government]; it's huge to [a small state], for example. So I don't know if you want to consider like whether that [an investment threshold] amount should be proportional [...] there's also questions there, is that over the lifetime of a contract or is that over a single year.' [GE 23]

Furthermore, there were suggestions to limit the predetermined bureaucracy and complexity of the unified framework of evaluation, to leave room for a range of different types of investments, and to limit the cost of evaluating specific investments. This included the reduction of required steps to pass through within the evaluation framework and to allow investment decisions to be taken in a timely manner.

'I would hate to see that innovation, creativity in model development kind of got bogged down in something that took too long.' [GE 22]

Integration of investments into strategic planning

Stakeholders also pointed out that any investment and disinvestment decision should be evaluated based on strategic alignment with government policy. This strategic alignment would be required at the beginning of the evaluation process and consider that strategies, needs, and workforce capabilities can significantly differ between regions and jurisdictions. These would make a unified approach to evaluation not well-suited for some investments. Furthermore, a need to maintain a sustainable business environment and workforce that are compatible with current services was suggested.

'I do think we need to have something here about, "Is it in line with our mental health strategy?" [...] because if you're thinking that these processes could be for statewide or national, you need to have some sort of bigger sense of where this fits in or where this is leading.' [GE 19]

'We've got heavy reliance on NGOs and community sector. We need to make sure that they're sustainable organisations. So they need a level of predictability in their funding.' [GE 10]

Stakeholders viewed a unified framework for investment decisions to be beneficial for service integration and for improving value for money. While all interviewed stakeholders were representatives of the public service and worked in health and other government departments, mental health commissions, and agencies, they advocated a more unified approach to integrate all relevant payers for care, including private ones.

'There would be huge benefits to better align our investment approaches and priorities.' [GE 2]

'[a unified approach is] both required and desirable. Particularly if it brings, at least from my perspective, that it brings the funding streams together.' [GE 17]

It was also pointed out that conflict and duplication relative to existing investments and services should be avoided.

'we don't want investment decisions to overlap, or duplicate, or disburse scarce funds to the edges when we want the value to be in the centre.' [GE 19]

Many stakeholders discussed the need for new investments in mental healthcare to align with long term health department strategic plans and political will.

‘There’s always going to be political considerations and relative funding considerations, particularly in a fixed budget context’ [GE 6]

‘sometimes we’ve got really good ideas, but the timing just isn’t right. The political appetite isn’t there’ [GE 21]

Within-stakeholder competition

Stakeholders pointed out potential friction points between policy makers, workforces, payers, and providers within an investment decision process, and stressed that these conflicts should be managed.

Competing levels of government, policy makers, and political parties

Stakeholders noted potential competition and limited knowledge-sharing between state, territory, and federal government departments and ministers, which were further divided along political affiliations. They also noted potential competition between different government departments, including health and non-health departments that may create barriers to successfully implementing a systematic and transparent investment decision process for mental healthcare.

‘the different states and territories have different agendas, I suppose, and they’re at different places.’ [GE 10]

‘One of our big challenges is like Treasury is our kind of governing body. They’re obviously doing all of government, so they can’t be experts in health and mental health. And they’re competing with all of the other portfolios.’ [GE 21]

Stakeholders also pointed out that room for different political programs needs to be maintained in a democratic system of government.

‘I get the idea of having the Minister on the hook. it’s great, it leads to transparency, etc. But at a practical level, the priorities of one government are often, usually, not necessarily the priorities of another.’ [GE 4]

Competing workforces

Stakeholders referred to competition between different healthcare workforces that can impede collaboration and integration. Clinical providers must be motivated to cooperate with community and non-health professionals to achieve successful mental healthcare investment.

‘mental healthcare sector is one of the most divided, competitive, confused sectors there is.’ [GE 1]

'within mental health, psychiatry is privileged over some of the other workforces [...] it comes into play particularly around decision making about what happens and what treatment is provided. [...] I'm certainly not saying we need less psychiatry. I'm saying we need to value all of the workforces.' [GE 10]

Competing public and private health care providers and payers

Stakeholders suggested that rules for evaluation and service provision should be comparable across private and public health care and that private care should not be the testing ground for new investments and models of care.

'it needs to apply across the different parts of the system. So whether it's the public, the NGO, or the private system, everybody should move to this type of approach. [...] Unless it applies to all of them, you will always identify one, and I think it'll always go to the non-government sector.' [GE 17]

Schemas

Schema on Value

A fundamental step for connecting health care funding and investment to the 'value' it produces is to define and measure value. Workshop participants from mixed stakeholder groups including providers, consumers, carers, local hospital networks, primary health networks, advocacy groups, and academics all agreed to the inherent complexity of undertaking this task within mental healthcare.

While surveys and clinical measures may be helpful for assessing specific diagnoses and progression, participants felt these do not *'hit the mark'* in fully capturing what consumers, carers, and families value including holistic wellbeing and the ability to *'function'* in society. It was suggested that existing measures have limited utility in enabling comparisons across diagnoses and between mental health and other sectors, which is useful for system level priority-setting and resource allocation. Mapping some outcomes to health utilities is challenging, with utilities desirable for comparisons across policy domains. It was recognised that surveys may support deriving utilities based on a subjective wellbeing paradigm. However, individuals often do not consider their condition from a wellbeing perspective and may not even have 'wellbeing outcomes' depending on their condition. Instead, some may value *'capabilities'*.

Consumers, carers, and lived experience groups particularly queried the ability of existing survey instruments to collect meaningful and relevant data not *'skewed'* towards finding positive outcomes for a particular health service. Some participants perceived these measures as being *'created by*

clinicians' and not giving adequate weight to sustained long-term outcome improvement. Surveys were said to also be frequently completed by providers or carers, not consumers, leading to: *'an evaluative funnel, whereby the raw data and the real experience is not captured'*. That said, some noted that consumers and carers may themselves require support to provide useful data, and some may be incapable of doing so. Individual coping styles influence self-reporting, mental health is dynamic, diagnoses are often chronic and subject to *'treatment resistance'* and what is *'valued'* by consumers, carers and providers may conflict, adding further complexity to outcome measurement. Because of this, some saw merit in partial reliance on *'raw'* administrative outcomes, unaffected by a specific stakeholder lens (*'waiting lists', 'referrals'*). Some participants noted the potential usefulness of process outcomes, including: *'keeping people engaged in care'* and implementing *'clinical guidelines'*, due to the challenges associated with attributing specific changes in mental health and wellbeing purely to provider care.

Participants strongly felt that many valued outcomes fall outside clinical domains including *'social connection', 'getting or maintaining work', 'educational outcomes', 'housing', 'safety and hope', 'dignity and respect', 'spiritual and physical' wellbeing, and 'partnerships with families, supporters and carers'*. Current measures overlook *'social determinants of health'* and the multifaceted nature of life experience, including pathways through care, and may not be tailored to the needs of specific groups. Cultural, housing, and socialization needs are often missed, ultimately resulting in ineffective individual-level care. Evidence-based measures need to be designed considering factors such as rural residence, gender, disabilities, comorbidities, and cultural background.

Workshop participants acknowledged challenges in developing a standardised set of consumer-centred outcome measures, due to preference heterogeneity: *'mental health is an incredibly unique journey'*. Participant views were contradictory, arguing both for a wider range of outcomes (*'flexibility'*) and for a *'targeted and minimal subset'* that could be realistically collected in the face of existing access issues. Ultimately, the co-design of outcome measurement tools was emphasised, incorporating lived experience insights on what truly matters on mental health journeys: *'the consumer suffers because they usually have the weakest voice'*. Processes for finding consensus on value across stakeholder groups are needed, potentially through better embedding regular provider-consumer interactions to find *'appropriate'* and *'valued'* outcomes that consider individual contexts.

Schema on Investments

Workshop discussions around a unified national framework for evaluating mental healthcare investments were motivated by a current lack of evidence-based decision-making. Participants from diverse groups saw merit in a unified, value-based framework, recognising that significant past

mental health investments had failed to produce sustained improvements in outcomes: *'it's probably unethical and economically irresponsible to keep doing what we're doing'*.

Participants highlighted barriers to establishing a unified investment framework and the complexity of doing so within mental healthcare. Besides the lack of a strong, foundational evidence base for decisions, other barriers were said to exist including the difficulty of defining a *'successful'* change in outcomes and the existence of *'strong advocates'* for certain programs countering evidence-based investment decisions. Barriers such as these can easily become exacerbated by the complexity of mental healthcare and outcome measurement and attribution, the legal complications, and a fractured political landscape, including a Federal and State government *'divide'*. *'A unified approach to investment...has to [fit into] Australia's federal structure'*.

Participants noted that any agency tasked with overseeing framework development would need *'to set standards'* around criteria and processes for evaluating investments in an arena where *'interventions are complex. They're not like a pharmaceutical or medical device'*. Participants highlighted that framework development needs to consider coordination amongst multiple organisations and consider community-level circumstances, as these contribute to the effectiveness and cost-effectiveness of investments when implemented, suggesting that *'any single point solution probably will be doomed to failure [if] it doesn't mesh with the realities on the ground'*.

Participants described current measures to justify investment decisions as too narrow, not co-produced, concentrating on clinical need alone, and failing to consider and integrate *'social and environmental'* domains such as employment, housing, justice, and child protection, which all have a significant bearing on mental health. Starting to encourage more holistic care within investment evaluation was valued by many participants, moving away from a purely *'medicalised lens'*.

The need to avoid lengthy bureaucratic processes mattered to participants as these *'limit innovation'*. Furthermore, some services fail to fit a formal evaluation despite being *'valuable'*. Traditional economic evaluations may not adequately weigh prevention, community outreach, and *'stigma-busting'* activities. They may also fail to recognise differences in treatment preference and effectiveness amongst individuals with similar needs and may inhibit *'diversity'* in market offerings. Evaluators need to be aware that *'cherry-picking'* patients and mental health outcomes can skew economic evaluations, and that an over-focus on specific, narrow targets should be avoided given the multifaceted nature of mental health outcomes, an issue perhaps more relevant in this area than any other.

Pilots were seen as beneficial in the context of mental health investments. However, participants felt that the system needs to advance from short-term, conditional service provision focused on

‘*superficial, outcomes*’, to longer timeframes. This would not only enable evidence collection but also avoid funding uncertainty. Finally, consideration should be given to the ‘*ethics*’ of disinvestment and service removal, to avoid adverse community impacts for people relying on these services.

The proposed framework should be adaptable and innovative, catering to diverse needs, and accounting for implementation risk and program ‘*scalability*’. In addition, workforce factors including sustainability, ethics, rigour, and skill must be considered. ‘*Lived experience representatives*’ should provide adequate input and have a clear voice, embedded throughout the investment evaluation process, from the point of new intervention proposals within priority-setting to the evaluation and implementation of investments. The capacity of ‘*lived experience representatives*’ to contribute to decision-making and political processes thus needs to be well-supported.

Summary of Schema analysis

Central points discussed in the workshops closely matched themes identified in the interviews. However, workshop discussions focussed more on the perspectives of the non-government stakeholders taking part in the workshops, namely researchers, care providers, and lived experience groups, while interviewees focussed on the perspectives of government policy makers. Like government stakeholders, workshop participants highlighted the difficulty of defining value. Current clinical measures were, by themselves, seen as insufficient for defining value. This would again imply that either the evaluating institution or other entities would need to develop a methodology on the definition of the relevant outcomes and costs used for evaluating investments in mental health. The discussions made in workshops also suggested that a central role should be assigned to lived experience individuals in the evaluation process and methodological development. Particularly lived experience groups advocated for an iterative approach in this process to ensure that their input remains relevant to the evaluation and measures used for evaluations.

Evaluators were said to require expertise that was more than purely clinical and economic and to be able to consider and incorporate wider social factors, such as the social determinants of mental ill-health. Workshop participants described a need for comparable measures of outcomes and value, and the difficulty of finding these. Discussions also frequently highlighted the risk of outcomes creating perverse incentives and of cherry-picking outcomes in evaluations, and that these risks had to be managed appropriately.

Like policy makers, most workshop participants saw merit in a unified approach to mental healthcare investment, in recognition that past investments had not achieved significant improvements in mental health. The complexity of evaluations was again mentioned as a primary challenge for such evaluations, together with institutional obstacles and the importance and influence of advocacy groups. The evaluating organisation was seen as playing a crucial role in defining and developing methodologies, reflecting the greater complexity of mental health and the need to develop common standards to reduce the selective use of evaluation criteria. This should include expertise on implementation risk, an emphasis on understanding scalability, and an overall increase of rigor in evaluation.

However, limitations to a unified approach were also mentioned. The need to adapt evaluations based on their scope and local circumstances and the risk of creating a bureaucracy that is too extensive to evaluate relevant investments and maintain diversity in care options was discussed. Workshop participants were also supportive of ongoing evaluations of investments and potential disinvestments, as long as these evaluations considered sufficient timeframes used meaningful evaluation criteria, and ensured general continuation in service availability.

Importantly, workshop participants consistently advocated for a central role of lived experience individuals throughout all stages of the evaluation process.

Discussion

Our study reveals important design elements for embedding a unified, systematic, and transparent process to evaluate and improve investment decisions in mental healthcare. Some can be taken from other contexts, such as from frameworks supporting investment decisions in pharmaceuticals and medical devices. This includes a focus on transparency, accountability, and independence in decision making, and aiming to get the greatest value from investments, ensure equity, and integrate proposed investments within an overall strategy of service delivery.

Lessons from other frameworks of economic evaluation can also be taken to overcome some obstacles to designing a framework for the evaluation of mental health investments. For example, the need to manage competition between political parties, institutions, departments, workforces, levels of government, and private and public providers and health insurance is shared by economic evaluations in mental health and other areas of health care provision.

Some of these obstacles seem more pronounced in mental health, potentially resulting from more diverse services and funding streams, the more important role of social determinants for mental

health outcomes, and greater stigma around mental ill-health. However, in many of these cases, there does not appear to be a fundamental difference to other areas of health care.

Therefore, a framework for the evaluation of mental health investment benefits from being modelled on existing frameworks used in economic evaluation and decision support. However, existing frameworks need to be adapted to the specific requirements of mental healthcare.

What are the main points where the frameworks must be adapted to the specific requirements of mental health? Our analysis identified three main areas: The greater scale of uncertainty in mental health, the predominance of services and bundles of services, and a much less developed methodology for economic evaluation of mental healthcare services. We discuss these in further detail below.

Greater scale of uncertainty

Our analysis consistently showed that the uncertainty and complexity involved in evaluating and deciding on investment is much greater in mental health than in other areas of health care, in line with previous research arguing that uncertainty is a defining factor for the economics of mental health. (Frank and McGuire, 2000, Golberstein and Kronenberg, 2022) Our analysis reveals important dimensions of how uncertainty occurs, how it is perceived by central stakeholders in mental health, and how it contributes to the complexity of care and the economic evaluation of care.

Firstly, there is greater uncertainty about what determines and what can improve mental health. This leads to less predictability of who will experience mental ill-health, at what point in time, and how it should be treated. These factors make the economic evaluation of mental healthcare more complex, particularly compared to the evaluation of pharmaceutical treatment, for which many of the existing evaluation methods and frameworks have been developed. (Murphy and van Asselt, 2020, Connell et al., 2014).

Secondly, stakeholder perspectives suggest that there is greater uncertainty about relevant outcome measures and a definition of value of mental healthcare interventions. This uncertainty applies to clinical measures, and to alternatives such as wellbeing, functionality, and other measures that capture individuals' ability to care for themselves and participate in economic activity or education. Furthermore, not all existing measures can be transformed into measures of utility, making comparisons across a range of policy options more complex.

Thirdly, there is greater uncertainty due to indirect effects on the communities and the social network of those affected by mental ill-health, and indirect effects often dominate the direct effect.

The wider economic benefits of investments are often realised outside of the mental healthcare sector but rarely included in economic evaluations. Previous research showed that clinical measures have less importance in the evaluation of mental healthcare services than in other contexts of economic evaluation, as mental health affects a wider set of clinical and other outcomes. (Brazier, 2008) Clinicians and individuals with a lived experience in mental health may not have the capacity to measure indirect effects consistently and this important information is therefore often unavailable.

Fourthly, because the determinants and effectiveness of mental health treatment are strongly socially embedded, data on the effectiveness of mental healthcare services often cannot be tested in randomized controlled trials. Different methods to estimate the causal effect of services on outcomes may therefore be required and may further contribute to uncertainty. The development of expertise in estimating causal effects outside of clinical trials, allowing for the reduction of this uncertainty, may need to be driven by evaluators outside clinical settings by non-clinical experts in social science and economics.

The role of an evaluating body should, therefore, include the development of new knowledge about what and how to evaluate different forms of mental healthcare (Shah et al., 2014). This may entail the identification and measurement of suitable clinical and non-clinical outcomes, such as capabilities and functional outcomes, of labour market outcomes and other economic participation of individuals with mental ill-health, their families and carers, and their ability to self-care and maintain social connections.

Stakeholders agreed that even with increasing knowledge about the measurement, many evaluations in mental health are likely to conclude with greater residual uncertainty about the size and persistence of effects after implementation. Mental healthcare is often embedded into social structures, such as work environments, family structure, and continuity of housing in a specific location, that are much more subject to change over time relative to biological processes that are targeted by pharmaceuticals and treatments using medical devices.

For this reason, even with increased efforts to reduce uncertainty, continued evaluations of investments may be required, such as through pilot programs and ongoing evaluations of investment. This ongoing evaluation also includes a more explicit consideration of disinvestment when usual care is not cost effective, which is implicitly assumed in economic evaluation but rarely done.

Overall, the results of our analysis, in line with insights from previous studies, indicate that a framework for evaluating mental healthcare investments needs to account for more uncertainty.

The framework for evaluation and decision support should aim to reduce uncertainty by continuous knowledge generation and methodological advancement, make greater use of expert opinion and pilots in early stages, include measures to account for residual uncertainty, and a more explicit role in the possibility of future disinvestments. It also includes the need to consider different methodologies for evaluation, when randomised controlled trials are not feasible.

Investments in services

Mental healthcare is centred around services and bundles of different types of services, compared to more unidimensional products that are the focus of most existing frameworks of economic evaluation of pharmaceuticals and medical devices. Our qualitative analysis highlighted that new and existing investment into mental healthcare services requires the consideration of overall models of care and the integration of a range of products and services in combination.

Furthermore, because services are provided by individuals, insights into the availability of relevant workforces must also be part of the evaluation and the decision-making process. In a framework for evaluating mental healthcare investments, this has three primary consequences.

Firstly, at the inception stage, a greater focus is required to consider whether a new investment aligns with overall priorities and planning in mental healthcare. This differs from the use of pharmaceuticals or medical devices, where the use of a new and improved drug or device can replace an existing one without the need to reorganise a treatment pathway or model of care. Such systems-level considerations about the overall impact of any new investment are required in mental healthcare.

Secondly, evaluations and decision-making support should involve relevant service providers and stakeholders and require broader evaluation panels compared to the narrowly defined groups of medical clinicians, economists, and consumers that typically contribute to economic evaluations. The greater set of experts across the relevant sub-committees should include non-clinical service providers, and the economic evaluation should include a wider analysis of the social consequences compared to a more technical, item-based evaluation, as observed in existing frameworks. There is also a much wider group of individuals whose lives are affected by the experience of mental ill-health, including patients, carers, family, friends, social networks, communities, educational providers, the justice system, and others.

Thirdly, service innovations are more likely to be developed in a bottom-up approach and tailored to a local context. Conducting an extensive evaluation for such smaller scope investments may not be justified due to the opportunity costs of evaluating the service. The extensive amount of evaluation work that is implied by economic evaluation suggests value of information in mental

healthcare evaluations needs more consideration. The use of rapid or adaptive processes is therefore more likely to be used in mental healthcare, particularly when there is greater urgency, more certainty about the benefits of an investment, or if a proposed investment has a negligible impact on budgets. (Nemzoff et al., 2023) An example of such an abbreviated process is the Single Technology Appraisal track in the United Kingdom's National Institute for Health and Care Excellence (NICE) system. (Kaltenthaler et al., 2011)

Development of methodology and standards

Finally, the qualitative analysis suggested that there is a need to advance the methodology of evaluation, and a need for framework development while supporting the development of standards of economic evaluations in mental health. Advances have been made over the past two decades in terms of the inclusion of economic evaluations in mental health research, (Knapp and Wong, 2020) but there has been little methodological research on how to undertake evaluations in clinical research. While applied research in economics and other social sciences may provide suitable methodologies to be used in mental health, for example, the use of quasi-experimental methods when data from clinical trials is not available, these are not known or widely applied in economic evaluation in health care.

Relevant outcome measures in mental health need to be meaningful for patients, their social networks and communities, and clinicians and policy makers. Such measures are currently not well-available. For example, outcomes such as improved relationships and greater social participation are of central importance to patients, but no existing methods allow for measuring these. This highlights the relatively early stage of methodological advancement regarding economic evaluations in mental health and the need for research.

Clinicians, patients and carers, and policy makers have different perspectives on what defines useful outcomes. Reconciling these different perspectives would be a primary task of any agency responsible for a unified framework of investment decisions.

The institution responsible for these economic evaluations would be wise to engage in methodological research and development, and ultimately develop standards that can be widely applied. This setting of standards and reference points needs to be adaptable and extend beyond large and in-scope evaluations that are directly overseen by the evaluating institution. This is because out-of-scope evaluations will make up a significantly greater share of candidate investments in mental health than they are in other areas of healthcare delivery. Consequently, a research focussed arm of an evaluating institution appears important, either within the organisation or through external collaboration.

Limitations

We acknowledge that our approach has limitations. First, our data is based on stakeholder comments and our interpretation of their views expressed in the interviews, workshops, and written submissions. The stakeholders that contributed to our analysis may not be representative of all relevant stakeholders and encompass all relevant stakeholder views, as our sampling strategy was purposive and did not aim for representativeness.

While stakeholder views from all relevant state, territory, and federal government departments and agencies were sought, our analysis does not include views from the federal Department of Health and Aged Care and one state Department of Health. Views from these departments could have contributed to different themes or categories within themes. However, as saturation in the thematic analysis was reached after ten interviews and three more interviews were integrated into the thematic analysis after confirming saturation, the overall effect on our results is likely to be negligible.

Second, the views of stakeholders as synthesised in our analysis may be biased in ways that cannot be unveiled by our analysis. This limitation is shared with other qualitative research. The current paper used the relevant methods to address this limitation, including consensus building activities to reduce interpretations subjective to one individual, groupwork, following established methods for thematic and Schema analysis, engaging with stakeholders across jurisdictions and different stakeholder groups, and triangulation that included various data sources.

Third, all data were collected in Australia and questions in interviews and workshops were asked with clear reference to the context of the Australian healthcare system, and Australia's economic, political, and social context. We believe that our results apply to other healthcare systems, as many developed countries face similar problems. (Knapp and Wong, 2020) The Australian health care system also holds similar structural characteristics to other countries, often considered a hybrid of the United States and United Kingdom health care systems. Factors identified in our research therefore appear informative for those two and potentially to other systems. Furthermore, the main challenges identified, such as the need for methodological advancement through further research or the greater need for continuous evaluation of mental health services as societies change over time, are general issues that are not specific to Australia.

Conclusion

Respondents agreed on the benefits of a unified, systematic, and transparent approach to evaluate mental healthcare investments and to provide rigorous decision support. Views differed on the

applicability of a centralised process used for all potential investments, referencing the resultant need for collaboration between federal and state governments, and the need to consider tailored solutions for specific local problems. Adaptability of the process was therefore highlighted as necessary. The importance of considering lived experiences throughout the process was also consistently highlighted.

Stakeholders described obstacles to evaluations but also outlined pathways to overcome these obstacles. Solutions included a greater use of post market assessments of investments, a greater inclusion of individuals with a lived experience and their social networks in the process, and the development of relevant outcome measures that are relevant to a range of stakeholders, including recipients, providers, and payers of care. The consistently described complexity of mental healthcare can be addressed within a unified and transparent process by creating an expanded knowledge base and developing methodologies for measuring and evaluating outcomes.

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Appendix A: Interview guide

ID:

Date:

Interview start time:

Interview finish time:

Introduction, thanks for participation, consent

My name is *[insert name]* and I am *[insert position]* at the Macquarie University Centre for Health Economy (MUCHE). I will be conducting the interview with you today.

Also present with me are *[insert names]*, who are researchers at MUCHE. Their role is to observe the interview as part of our qualitative research methodology and will therefore not ask questions.

Thank you for agreeing to be interviewed.

I will now run through some information related to this interview.

Your participation is completely voluntary. Acceptance of our interview invitation suggests written consent to take part in the study. If you change your mind, you can withdraw at any time, and you do not have to give a reason.

We will now turn on Zoom recording and ask you a series of questions to gain your views on the mental healthcare funding and investment environment in Australia. I will also share my screen at times to show the tables and figures that some of the questions refer to, which were included in the Consultation Paper we provided.

Prior to commencing recording, we would like to emphasize that strict confidentiality is to be maintained by all individuals present here. No information regarding the discussions here is to be disclosed to anyone outside of this group. We would also like to emphasize that we expect general responses and views to the questions we pose based on your experiences, but there is no need to identify individuals or other identifiable sensitive information within your responses.

Do you consent to us turning on Zoom recording?

Please feel free to ask any of us questions at any time during the interview. You may also contact MUCHE following the interview if you have any questions related to the study.

[Start recording]

We have written a consultation paper that I hope you have seen as these interview questions are based on that paper.

We will mostly focus on two frameworks presented in the paper, the first on value based funding and the second on making investment decisions in mental healthcare.

I would like to start with some questions that seek your views on recent mental healthcare funding and investment reform ideas and progress.

Chapter 2

1. Do you think there is a case for exploring value based payments and alternative investment approaches in mental healthcare?
2. Do you believe the National Mental Health and Suicide Prevention Agreement sets an appropriate agenda for funding and investment reform within state and territories?

Chapter 3

We have also developed a framework to embed greater value into mental healthcare investment decisions. Our proposed approach is illustrated in Figure 2 of our paper's Executive Summary.

We are interested in your views on the proposed process. Let me share the framework on the screen and walk you through the framework. *[Interviewer note: Walk through Figure 2]*

1. What are your views on the proposed investment decision approach presented in Figure 2 of the Executive Summary?
2. Do you agree that a unified approach to investment decisions in mental healthcare is required? What are your reasons?
3. What are the potential barriers to implementing this structure regarding state and territory investment decisions?
4. Do you believe some mental health programs should be implemented on a conditional funding basis to collect more data and information before finalising an investment decision?

Final Question

1. Is there anything you want to add that we haven't covered in the interview today?

We would now like to offer you the opportunity to provide any feedback or concerns regarding the conduct of this interview or any of the discussions. You are also welcome to contact us with any concerns or questions via email following the interview.

Thank you very much for your time today.

[End recording]

Appendix B: Workshop guide

ID:

Date:

Workshop start time:

Workshop finish time:

Introduction, thanks for participation, consent

My name is *[Insert name]*. I am a *[Insert title]* at the Macquarie University Centre for Health Economy (MUCHE). I will be facilitating the workshop proceedings today. Also present with me are *[Insert team member names]*, who are health economics researchers at MUCHE, and who will be helping with running the group sessions.

Thank you for agreeing to participate in this workshop. We would like to emphasize that your participation is completely voluntary. Acceptance of our workshop invitation suggests written consent to take part in the study. If you change your mind, you can withdraw at any time, and you do not have to give a reason.

Our purpose here is to gain your views on the mental healthcare funding and investment environment in Australia, and how we could better embed value over the longer term to improve mental health outcomes and promote quality and evidence-based care. Ultimately, your insights will contribute to the development of a policy recommendations and a proposed framework to embed more value into Australia's mental healthcare funding and investment environment.

Prior to commencing, we would like to emphasize that strict confidentiality is to be maintained by all participants present here. No information regarding the discussions here is to be disclosed to anyone outside of this group. We would also like to emphasize that we expect general responses and views to the questions we pose based on your experiences, but there is no need to identify individuals or disclose other sensitive information within your discussions with the group.

We will be anonymising all the responses collected here and no individual will be identified in the qualitative analyses we will conduct following this workshop, although we may use general quotes summarising key themes. But these will not be attributed to any specific individual or organisation.

We have allocated all the participants present here to one of four groups with mixed stakeholder types. Over this workshop, we will present you with some questions to discuss within your breakout rooms.

You will then reconvene with the broader group, with one 'speaker' from each group to present the group's responses to the questions they were presented. The broader group will then also have the opportunity to participate in a group discussion and offer any comments or views.

There will be an observer and guide from MUCHE within each breakout room to facilitate the group activities and share the screen to show the questions and any diagrams or notes related to the questions. One group member will need to be a scribe or speaker. This person will take notes on the views and responses to each question presented, and summarise the views and responses of the group in the notes when reconvening with the broader group here.

Please feel free to ask the MUCHE research team member in your breakout room any questions at any time during the workshop. You may also contact MUCHE following the workshop if you have any question related to the study.

[Start recording]

[Start first presentation on current payment model reform and investment decision making environment and how our research fits into the policy debate]

[Start second presentation on defining and measuring value in mental healthcare]

[Start first breakout room activities. Researcher to identify a group leader to scribe and present summary of discussion. Group to discuss the following questions]

1. What does value in mental healthcare mean to you?
2. Should summary clinical surveys be used to measure changes in mental health outcomes from service delivery?
3. What other outcomes are valued by people with mental ill health?
4. What are some challenges when measuring outcomes and costs?

[End first breakout room activities]

[Reconvene with broader group to discuss responses to questions. Host to ask each group leader to present summary of group discussion. Open the discussion to all once all group leaders have presented]

[Start third presentation on proposed payment model framework]

[Start second breakout room activities. Respondents allocated to the same group. Group to discuss the following questions]

Group 1

1. Should value based payment models be used to fund mental healthcare?
2. What principles are most important to underpin mental healthcare investment?

Group 2

1. What principles are most important to underpin mental healthcare value based payment models?
2. Should there be a unified approach to investment decisions in mental healthcare?

Group 3

1. Do you agree with the proposed governance structure for implementing value based payment models in mental healthcare?
2. Do you believe investments should be implemented on a conditional basis before a final recommendation is made?

Group 4

1. Is there a specific patient population value based payment models should target to improve outcomes?
2. Do you agree with the proposed process for considering investments and making recommendations?

[End second breakout room activities]

[Reconvene with broader group to discuss responses to questions. Host to ask each group leader to present summary of group discussion. Open the discussion to all once all group leaders have presented]

Workshop close

Thank you all for sharing your valuable insights and views today, which will help us in preparing recommendations on how to shift funding and investment in mental healthcare towards greater value over the longer term.

Our hope is that this consultation process will help guide the Commonwealth Government and states and territories as they approach and consider new payment, commissioning and funding approaches in mental healthcare to help meet the needs of local populations, while promoting care quality, health outcomes valued by patients and adherence to best-practice care.

We would now like to offer you the opportunity to provide any feedback or concerns with regards to the conduct of this workshop or any of the discussions that have taken place. Please unmute yourself to share any concerns you would like to voice. Or if you prefer, you are also welcome to contact us with any concerns or questions via email following the workshop.

[End recording]