

Towards the Next Wave of Mental Health & Addiction Services and Capability

Workforce Service Review Report

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Foreword

Over the past ten years the mental health sector in New Zealand has undergone considerable growth and development. Under the guidance of the Mental Health Commission's (1998) Blueprint and various Ministry of Health and District Health Board initiatives we have closed the old institutions, developed community services, established an innovative NGO sector, described Maori and Pacific models of mental health and wellness, created specialised treatment for addictions, child and youth and older adults. Our service users now have voice in both policy development and service provision. Our mental health workforce is supported by national training centres; including specialised for areas of need such as Maori, Child and Youth and Addictions.

Over the same period we have increased our understanding of the pervasive influence of mental health and addiction problems on society as a whole. Te Rau Hinengaro, the New Zealand Mental Health Survey (Oakley Browne, Wells, and Scott 2006) and the primary care based Magpie study (The MaGPIe Research Group 2003) revealed the prevalence of mental disorder in the community. Highly regarded longitudinal studies have shown the influence of early experience on the development of mental health problems, others have shown the interrelationship between chronic physical illnesses and mental health disorders such as depression. We better understand the influence of mental health and addiction issues in the workplace, the effect of stigma as a barrier to accessing early treatment, of the load placed on health services by unexplained medical symptoms and the impact of an aging population and degenerative diseases of the brain on service utilisation.

In parallel, new approaches to treatment of mental health conditions are emerging: Self management of "stress" and mental health problems. Effective treatments delivered electronically or through brief interventions. Peer support as a recognised intervention. Successful return to work programmes for people with long-term conditions. Importantly, there has also been accumulating evidence that interventions early in the life cycle may help prevent the subsequent development of mental health and addiction problems in later life.

It was within this background that the Health Workforce NZ sponsored Mental Health and Addiction Service Workforce Review working group considered its primary task; to identify the service configurations, models of care and health workforce requirements of a situation of a doubling of service demand by 2020 with only a 40% increase in funding from 2010 levels.

The recommendations in this report propose shifts in focus of mental health services – towards primary and integrated care and preventive interventions at both ends of the life-cycle, while preserving the gains we have achieved for those with high and complex needs. Related innovations are already in place in some areas of the country. To generalise these initiatives and to implement other recommendations will require engagement and strong leadership across the sector, exploration of innovative funding models and recognition of the possible wider benefits to agencies other than health, including welfare, education and justice.

Adoption of the suggested changes will require some in the current mental health workforce to assume different roles, requiring different skill sets. Mental health services, educational providers, professional groupings and workforce organisations

have the expertise to determine the detailed educational and training requirements, within the broad framework proposed.

I would like to thank everyone who contributed to this report, both group members and the wider network of people with specialist knowledge for their ideas and comments. I would especially like to thank those who contributed to the case vignettes, the rich description of service user pathways that underpin this report. Finally, I would like to acknowledge the contribution of Philip Gandar and David Todd from Synergia who have provided expertise, energy and organisational skill towards ensuring the successful completion of this report.

Professor Rob Kydd

Chair

Mental Health and Addiction Service Workforce Review Working Group

In Brief

The key themes and calls to action of the Mental Health and Addiction Workforce Service Review working group include:

1. A call for a 250% increase in access to 'organised MH&A responses' by 2020 - to address unmet mental health needs that are the single greatest contributor to poor health and social outcomes at an individual, family and population level.
2. A rebalanced mix of responses across a life course continuum of eight distinct consumer journeys with a focus on:
 - Intervening earlier in the life course where there is strong evidence for effective interventions that reduce the burden and cost of MH&A – with at risk families, children and adolescents.
 - Integration across primary/secondary MH&A using stepped care approaches to improve access and recovery in community, reduce out-patient demand, reduce required length of stay in intensive settings, reduce burden and cost of co-occurring mental and physical conditions.
 - Working with CYF, Education and Justice to reduce system wide costs by influencing the pathways through high risk mental health, care and protection, and justice services.
 - Proactively managing the impact of mental health on care for the elderly by increasing access to interventions that enable elderly to retain or recover functioning, avoiding or delaying the need for more intensive and costly support.
3. Within these themes a renewed focus on the drivers of inequalities in MH&A burden and outcomes that affect Maori in particular as well as other high needs populations.
4. An active engagement of mental health within wider general health services and across sectors to leverage the contribution of mental health in achieving valuable societal and economic outcomes.
5. A commitment to transform our model of care towards an integrated primary/community based response that leverages our hard won, but limited capacity in specialist care.
6. Achieving these goals within constrained funding will require:
 - Combining a 30 – 35% increase in core MH&A funding with a drive for a radical lift in value and productivity, utilising a mix of e-therapies, supported self care, brief interventions and integration to support care in the least intensive, most effective setting based on individuals need.
 - Achieving an additional 5% lift in effective 2020 resources (approximately \$100m) by delivering MH&A services within general health, both in primary care and as a better alternative to more expensive medical out-patient or hospital care.
 - Working in collaboration with cross government agency partners in education, social services, justice/corrections who are currently bearing the costs of poor access to MH&A services to invest an additional 5% resource in MH&A to support whole of government outcomes.

- Over longer time frames achieving additional benefits through early intervention effects reducing downstream intensive service demand.
7. An investment in workforce, roles, capability and capacity that is able to drive the next wave of MH&A:
- Developing the MH&A capability of general health, particularly within primary care teams but also within wider general health.
 - A focused development of capacity and capability across the spectrum of self-care support – enabling e-therapies, self care/whanau care and peer support.
 - Developing a primary MH&A workforce capable of at least a 7 fold increase in current response levels by 2020 and functioning as part of an integrated MH&A system with community and specialist services.
 - Development of integrated specialist, community and primary based roles, functioning and capacity to support a shift towards earlier intervention, prompt access for acute care and recovery pathways that are effective in restoring functioning.
 - Building capacity in specialist clinical workforces; psychiatrists, psychologist and mental health nursing with the necessary skill mix to support both the areas of future development and the change in roles envisaged here.

Specific areas of recommended development include:

1. Adoption of a whole of system, person centric view that represents the large majority of MH&A need, issues and opportunities as a guide for future MH&A development.
2. Adoption of a wider scope for MH&A that recognises the impact of MH&A issues on child development, physical health, education, employment and criminality.
3. Utilise the whole of life course and wider scope to generate a next wave of evolution of MH&A services to address inequalities, for Māori, and for Pacific peoples.
4. Facilitate the development of a coherent people and family/whānau centred approach to supported self care/whanau care - 'self directed positive mental well-being'.
5. A shift in emphasis of MH&A services to systematically increase investment in high impact, high return consumer journeys; infant/child, adolescents, high prevalence adult and elderly.
 - a. Strengthening and scaling up early, preventative responses to the development of mental health issues, from the peri-natal period through infancy, childhood and adolescence.
 - b. Building on primary mental health initiatives to scale up primary/community based responses to MH&A issues which fall outside the current '3%' but are severe in their impact on people's overall health and ability to function at home or at work.

- c. Stronger focus on the MH&A issues for the elderly, particularly where relatively low intensity interventions can help maintain functionality and independence.
- 6. Fast action on innovations that will increase the effective productivity of specialist mental health services and leverage scarce workforce capacity.
- 7. Rapid development of the workforce roles, functions and support needed to deliver on the integrated MH&A vision.
- 8. A continued investment in a core of specialist MH&A services; psychiatrist capacity, specialist AOD capacity, ability to provide rapid response to acute needs and better utilisation of scarce forensic skills.

Finally the working group recommends that progressing the 2020 vision will need leadership. The working group has acted as a think tank to provide a seed of a vision and ideas that need constructive challenging and synthesis of thinking from a wider circle of clinicians, service managers, funders and policy people.

The remainder of this report explores these themes and recommendations in detail.

Towards the Next Wave – Summary Report

The Workforce Service Review

This report provides the results of a rapid review for Health Workforce New Zealand, (HWNZ), of the future Mental Health and Addiction (MH&A) service and workforce configuration and requirements in response to the challenge of a likely doubling in service demand by 2020, with no more than a 30- 40% increase in funding.

The aim of the review was to foster sector-led workforce innovations to address rising service demand in a context of limited resources and workforce constraints. The objectives were to develop;

- a vision of the mental health and addictions service and workforce for 2020, and,
- a model of care for the mental health workforce that is patient-centred, team based and integrated across the continuum; from self care, primary, community and specialist care settings.

The scope and focus of the review was also influenced by the evidence presented in many international reports going back as far as the WHO 2001 report: “Mental Health: New Hope, New Understanding” (World Health Organization 2001) that unmet mental health need is the single greatest contributor to poor health and social outcomes at an individual, family, and population level – in the words of the WHO “there is no health without mental health”.

A clinically led working group undertook the review across 16 weeks. The challenge was to develop a vision for the mental health and addiction system, including workforce requirements, to meet the HWNZ brief and to provide guidance for the first steps of this 10-year journey.

Our approach was to build our vision for 2020 from the issues and desired outcomes we would like to see across the system as a whole, using eight consumer journeys that represent a whole of life course view of the large majority of MH&A needs.

An immediate consequence of this vision is that the status quo mix and balance of investment across these journeys will not achieve what is needed. There is clear evidence for substantial health and whole of society costs for this narrow focus, including the cost of unaddressed MH&A issues on educational achievement, employment, criminality and excess morbidity. These translate into costs to the public sector in health, social, education and justice services. To address the imbalance in focus the 2020 vision requires substantially more emphasis on early responses for infants, children and adolescents, on increased access for high prevalence adult MH&A conditions including the growing MH&A needs of the elderly.

While it is not clear if underlying need in MH&A is growing¹ the vision of 2020 aims to increase access to ‘organised MH&A responses’ by nearly 250%, with a better

¹ Our most comprehensive mental health survey, Te Rau Hinengaro has yet to be repeated. A recent English paper found no evidence of change in prevalence for common mental health disorders across three cohorts from 1993 to 2007 (Spiers et al. 2011). The working group is of the view that while the MH&A projected demand for specialist MH&A services may not develop at the rate described in the brief, un addressed need is clearly present for certain population groups. Outcomes identified in

balance across the eight consumer journeys so that the next wave MH&A has a more effective, whole of life course impact. We are aiming to reach towards the 7-9% of our population with the highest MH&A needs, of which half to two thirds currently have poorly addressed and high levels of distress, loss of functionality and poor health outcomes. More broadly we are aiming to create a supportive MH&A environment for a still wider population where MH&A issues affect outcomes and costs within general health, social agencies and employment.

This impact will only be achieved if increased access and rebalancing are accompanied by a renewed emphasis on reducing persistent inequalities in mental health burden and outcomes. People with severe and complex or enduring mental health conditions will continue to need rapid access to acute care and effective support towards recovery. Maori MH&A prevalence rates remain high requiring continued systematic efforts to develop the pathways, workforce and care environments that are more effective for service users and their whānau across all eight journeys that form the basis of this review.

To achieve this with limited funding growth our models of care and workforce must drive towards a lift in productivity while continuing to address inequalities and maintain service quality. Based on international comparisons it is the view of the working group that we have a comparatively well resourced specialist mental health sector, which, with support to evolve more efficient and effective service delivery models and approaches, could provide greater access to specialist level care and more effective outcomes. It should also be remembered that many people who do not currently access any dedicated funded mental health care, do access “general practice as usual” services, which with a small amount of low-level specialist support could delivery more effective care and improved outcomes.

Our preliminary modelling suggests that this increase in access and responses could be achieved with no more than a 42% - 45% increase in total MH&A resources. Of this we would expect approximately 30 – 35% to be achieved through increases in core MH&A resources in line with a GDP based sustainable funding path. An additional 5% through increased MH&A responses integrated within general health, with the balance of coming from collaboration with cross government agency partners in education, social services, justice and corrections, who are currently bearing the costs of poor access to mental health services.

Leveraging the resources of the wider health and social services forms a critical part of the 2020 vision. Within health this means building MH&A interventions into our management of long term conditions, consultations for medically unexplained symptoms, and care for the elderly. More widely it means working with social service agencies, for example supporting maintenance of employment and return to work for beneficiaries, or working with education and social agencies in a whole of government response for distressed youth.

Workforce implications arise through all these shifts. We are operating within an environment of declining supply of key roles such as psychiatrists, and aging workforce and dependency on imported practitioners. To grow future capacity we will

key government strategies are not being achieved and the wider challenge of a resource-unsustainable current model, combined with opportunities for improvement; create a real, urgent and necessary case for change.

need to create an environment that is attractive, dynamic with scope for a wide range of practitioners. HWNZ will need to be active in facilitating the changes in mindsets, roles and practice required. As a sector we will need to develop capabilities in MH&A across our general health workforce, develop new roles and build capacity of existing roles.

Most importantly the 2020 vision will need leadership. Our vision and ideas need constructive challenging and synthesis of thinking from a wider circle of clinicians, service managers, funders, educationalists, academics and policy people. Yet it is urgent that we get started, building on the evidence and experience base of effective individual intervention with demonstration and evaluative learning designed to support effective system level change.

The Status Quo Will Not Meet Our Future Needs

The challenge presented to the working group was to describe the future MH&A service and workforce that could meet a likely doubling in demand by 2020 with no more than a 30- 40% increase in funding while maintaining access, quality and continuing to address inequalities of health outcome.

If the nature of demand on mental health services were constant, the implied 50-60% lift in productivity represents a huge challenge to the status quo of MH&A services. However MH&A is in a state of transition. There is increasing awareness that:

- MH&A problems are more common than typically understood, more common than our current high priority physical health conditions, with high prevalence rates for Māori (and to a lesser degree Pacific Peoples), acting as a substantial contributor to health inequalities.
- There are pathways towards serious and high impact mental health, addiction and behavioural disorders, particularly but not exclusively with infants, children and adolescents, that are identifiable early in development, are amenable to cost effective interventions yet represent large gaps in our current service provision.
- Substance abuse, ranging from hazardous behaviour, abuse through to addiction, shares high rates of comorbidities with various mental health problems and with other physical health and social challenges, (poverty, child protection, unemployment, disrupted education, criminality etc), it is critical that services reduce barriers to working with one another, providing integrated care focused on the needs of the client and their whānau.
- While MH&A conditions are identifiable, modifiable and amenable to treatment, access levels to services remains low except for those with categorised as having relatively severe conditions and situations. For the relatively few who can access services we are delivering arguably world class levels of care. However our funding, service models and perceptions of who is capable of providing mental health care creates drivers for retaining people within our specialist services rather than having pathways to recovery and independence with low intensity support.
- The personal impacts are significant, MH&A disorders are the leading cause of disability and responsible for the greatest number of disability adjusted life years lost.
- The societal impacts are wide ranging and costly, to families and carers, to employment and productivity, to the health system as a whole, and wider social system costs within education, social support and agencies, and the justice system. There are building expectations of a wider and more substantive role for MH&A driven by growing evidence of complex interactions between mental health, physical health and a person's social context. This is particularly so given the deeper understanding of the broader societal impacts of poor mental health on productivity, crime, and overall functioning; e.g. supporting child development, addressing physical/mental health comorbidities, reducing the impact of limited MH&A access on social services, employment and justice.
- Our current frameworks within mental health, between mental and wider general health and with other agencies are acting against MH&A services achieving this wider impact, generating boundaries, silo's and exclusions that

are detrimental to health outcomes, poor use of limited resources and workforce capacity and adding substantial costs to government.

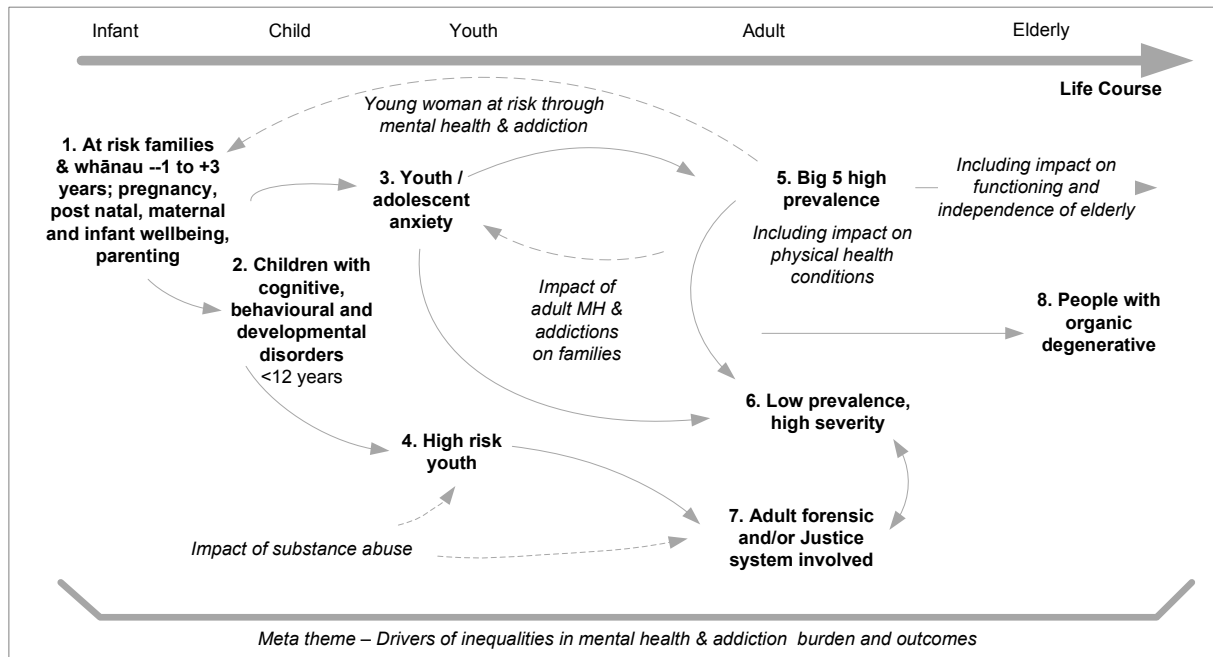
- While our workforce has grown dramatically over the last decade we are still experiencing shortages in critical areas of skill with persistent challenges in filling the training places available. We need a compelling vision of where MH&A is going, clear descriptions of roles and functions that are valuable, attractive and rewarding to build and retain our workforce. In a “no more money” environment this requires us to rethink what people do and how they work together to be smart, effective and productive.

In the face of these expectations the focus and mix of current MH&A services and its supporting workforce must rapidly evolve.

Towards a Comprehensive View of Mental Health and Addiction Service Requirements

As an aid to thinking beyond the status quo, the working group approach was to build a vision for 2020 based upon our view of the issues, opportunities and desired outcomes across eight consumer journeys that, taken together, comprise the large majority of MH&A needs²:

Figure 1: Whole of life course consumer journeys



In order to make sense of the richness and complexity of MH&A services and to locate our thinking the review chose to use a whole of life course approach that would encompass typical consumer journeys; from peri-natal through infant, child, youth, adult to elderly.

This approach seeks to:

- Take a person/ whānau centric, non service defined approach that enables a renewed focus on the greatest areas of need and potential benefit.
- Enable the interdependencies and developmental pathways that mark the progression of mental health and wellbeing to be explored.
- Build on the strong evidence base for early intervention, (early in the life course, and early in the evolving course of illness), and improve access to evidence-based interventions.

² Detailed descriptions of the vision, changes to model of care and potential impact at a clinical journey level are contained in our companion report "Towards the Next Wave – Consumer life course journeys"

- Reduce the complexity of MH&As many and highly detailed service configurations to a manageable level that would allow meaningful exploration of alternative models of care.
- Capture the bulk of clinically relevant service demand, i.e. the demand that drives workforce requirements.

The review group has used eight consumer journeys as shown in Figure 1, each are defined below:

1. At risk families and whānau - 1 to +3 years; pregnancy, post natal, maternal and infant wellbeing, parenting:

This pathway recognises the critical role of the peri-natal and infant years in developing a platform for subsequent success in life. The stream is mother, child and parenting focused, building on emerging evidence of successful interventions.

2. Children with cognitive, behavioural and developmental disorders:

This pathway focuses on pre-school to pre-pubescent (<12years) children and their families with developmental related mental health needs. It builds on stream 1 but with a strong focus on parenting support and early interventions for behavioural disorders, (including ADHD, oppositional defiance, conduct), that are showing substantial benefits for child educational participation and reduction in risk of subsequent mental health, addiction and criminality.

3. Youth/adolescent anxiety and depressive disorders:

This pathway recognises the extremely rapid rise in prevalence of mixed anxiety/depression in youth with a higher risk of subsequent adult mental health needs.

4. High risk youth:

This pathway describes the low prevalence/high severity mental health, alcohol and behavioural disorder related service demand, including self harm and conduct disorder. Substantial evidence exists for adverse flows from journeys 1, 2 and 3 above ending up in this pathway generating life long risks of poor mental health, substance abuse and criminality.

At risk families – aspects of a vision for 2020

A system of care approach is used; child or youth always seen/treated within the family context by multidisciplinary, multiagency team/providers

Family is engaged perinatally and engaged throughout pregnancy and beyond.

Fundamental “welfare” domains are addressed – benefits, employment, return to work or education, safe housing along with mental health/AoD issues, Wellchild checks – funding is pooled.

System operates on “one family, one plan, one case worker, one health record”...

*(Towards the next wave:
Consumer life course journeys -
p22)*

5. Adult ‘big 5 high prevalence’:

The cluster of overlapping situations characterised by anxiety, depression, drug and alcohol abuse, complex psycho/social stress and medically unexplained symptoms. The people within this pathway frequently have co-occurring medical conditions with high usage of health services, many/most have not accessed effective interventions, and they are at risk of loss of employment as adults or loss of independence if elderly. This pathway provides relatively low cost MH&A responses in primary/community settings that can have substantial effect as early interventions in developing MH&A issues, leveraging the effect of specialist MH&A care and general medical services, reducing hospitalisations and need for benefits.

6. Adult low prevalence, high severity:

This journey encompasses multiple pathways for adults with severe MH&A conditions including those for early intervention, episodic acute needs, uncomplicated or complicated recovery as well as the small proportion with severe and enduring care needs. Opportunities exist to gain benefits from better integration with primary care, support for self-management, medical and mental health interventions, educative options, and support for employment, with resultant decreased benefit usage and decreased adverse flows into journey 7.

7. Adult forensic and/or Justice system involved:

The pathway is generated by the overlapping nature of some high severity MH&A and criminal behaviour. While some aspects of this pathway are likely to remain resource intensive substantial opportunities exist to gain society wide benefits from better medical and mental health interventions with this population; reduce reoffending, reduce benefit usage and increase employment.

8. People with organic degenerative needs:

While this pathway is dominated by more elderly oriented ‘psycho-geriatric’ demand (mainly dementia) it recognises that organic disorders also affect a wider age range (e.g. acquired brain injury). Opportunities to use MH&A interventions to slow decline and enhance compensation for changing functionality will form a critical part of future economic sustainability.

Whānau Ora – aspects of a vision for 2020

Whānau Ora practioners (physician assistants) are attached to primary care team where the crises mental health team is also located.

The Whānau Ora practioner is engaged at earliest notification of need, assesses and engages with whānau as the first point of contact either in face to face contact or by phone. They are the key liaison between whānau, community and services as well as providing information to the Whānau on what’s needed in this instance what to look for in future and how to access appropriate help and guidance...

(Towards the next wave: Consumer life course journeys - p10)

A critical aspect of these journeys is that they are not discrete, for example more effective earlier action in 'upstream' journeys could potentially reduce the level and intensity mix of demand arising within subsequent journeys.

Likewise AOD issues can be seen across many of the journeys as both independent sub pathways where risk, abuse or addiction are the main or sole cause of concern and as co-occurring issues with complex and interacting issues and sub-pathways.

Similarly persistent inequalities in health burden and outcomes, particularly for Māori, require us to consider an overarching 'meta-theme' of where disparities are arising and how the approach across and within journeys can be designed to improve the performance of the MH&A system as a whole.

Towards a Breakthrough in Capability, Performance and Impact

Our vision for 2020 is for a MH&A system that is delivering to a wider role, through a capable workforce that includes self care by people and families as well as mental health support through our general 'non mental health' workforce – while enhancing the role of our scarce, dedicated mental health workforce.

To do this within limited resources we need a radical lift in effective productivity that lets us more than double or triple the number of people who gain benefit from different forms of organised MH&A support and treatment.

Fortunately MH&A services are rich in developed and emerging methods that show a radical productivity lift is possible; for example through new models of care that leverage self care, broaden the capacity of wider health workforce to use brief MH&A interventions in their normal practice, and utilise low intensity interventions such as e-therapies or brief talking therapies in primary care.

The breakthrough in capability, performance and impact that we need demands that we are more effective in addressing inequalities for Māori. Emerging innovations in whānau ora and people centric approaches to care show that by better understanding peoples individual and whānau context, capabilities and needs we can be more effective in making differences that matter and increase the value delivered for the time and resources used. Some of the needed impact this will be achievable as a consequence of rebalancing across the life course, for example addressing the inequalities that arise early in childhood and adolescence. Addressing systemic drivers of discrimination that result in lower service referral rates, dropout rates or services usage is part of our call for a more integrated, whānau centric primary and community based MH&A system.

The 2020 vision will also require that we utilise our existing MH&A workforce and resources in a different way. We must urgently drive for better integration across primary and specialist care to consistently use the most effective, least intensive care settings possible. A large proportion of our current specialist MH&A demand should be catered for in shared care arrangements with primary care, as should a substantial proportion of current outpatient referral demand. Combining focused specialist mental health, shared care and the emerging capability of organised primary mental health will be critical to lift access and effective productivity.

Adult 'big 5' – aspects of a vision for 2020

Practices routinely screen for depression/anxiety in children and adults, and nurse-lead MH clinics provide structured assessment and care planning (supported by an IT template for MH assessment) and early interventions along with appropriate e-therapy options.

Patients with significant MH issues (as reflected in appropriate rating scales) are seen by the GP for more in-depth assessment, appropriate prescribing, and more expert brief interventions, along with referral for brief face-to-face CBT/therapy provided either in the practice or a local IFHC, by a therapist known to the practice team.

The GP and PN have ready access to a (electronic) directory of local support services which people with MH and psychosocial needs can access directly...

(Towards the next wave: Consumer life course journeys - p51)

Taken in isolation none of the proposed shifts require out of the box thinking or breakthroughs in care. What will be radical is how we put them together to drive for a whole new lift in system wide capability, performance and impact.

The working group has undertaken some preliminary modelling of the eight consumer journeys to paint in numbers our view of the challenge and possible responses that would be required to realise the 2020 vision.

We have taken a macro level approach to modelling the population structure and known or assumed prevalence of need within each journey. We use this modelling to explore the possible impacts of the recommendations above, to assist us in understanding the 'quantum' of what is required and paint the picture of the 2020 vision in more concrete terms.

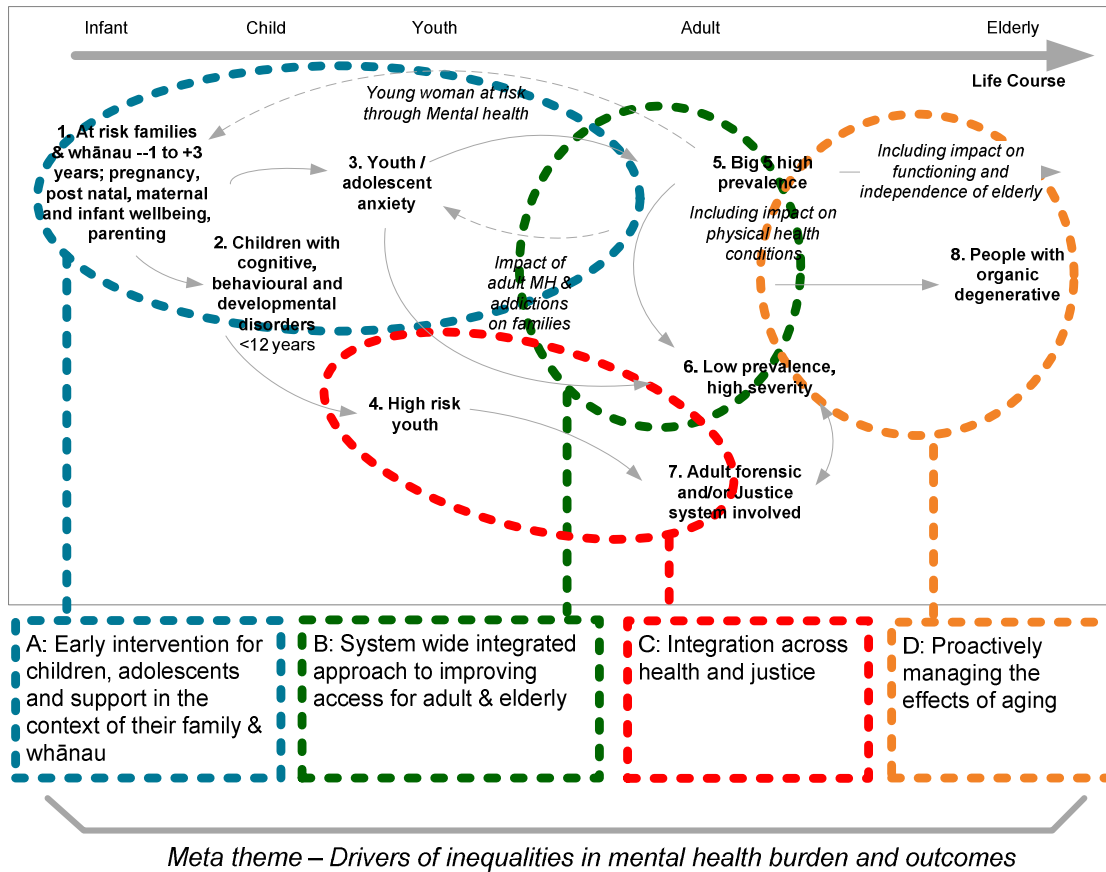
In essence we believe that the recommendations above can be condensed into four themes;

- a.** Intervening earlier in the life course development of MH&A, from perinatal through to adolescence to reduce both short term effects and longer term flow on to adult MH&A need, (journeys 1, 2, 3 and 4)
- b.** A system wide integration of adult MH&A services, (e.g. within a 'stepped care' approach) to improve access at a lower overall cost per episode of care, (journeys 5 and 6)
- c.** Influencing the pathways through high risk mental health and justice to reduce system wide costs (journeys 4 and 7)
- d.** Proactively influencing the effects of aging, (a mix of journeys 5 and 8)

Again, across each of the above there is an overarching meta-theme – how will action within each area address the drivers of inequalities in mental health and addiction burden and outcomes, particularly for Māori.

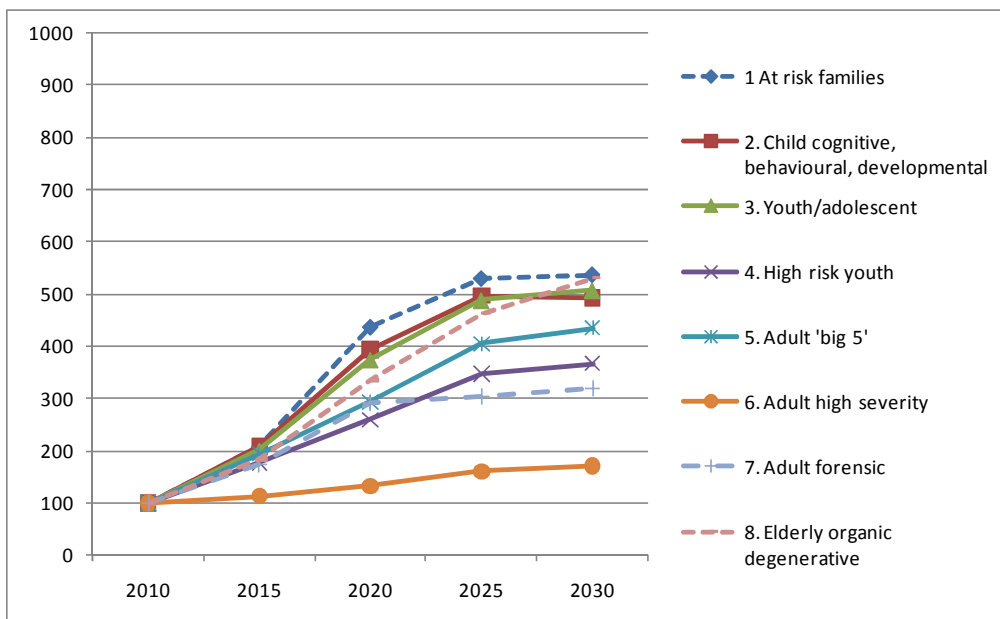
The four themes and meta-theme are shown diagrammatically below:

Figure 2: 2020 Vision: Four key interventions across the life course



For each journey estimates of existing service response have been made and calibrated to actual data of service usage where possible, for example in-patient beds or the activity level in specialist community care. We have then modelled the changes to the model of care envisaged in the 2020 vision with time phasing to represent the possible pathway that is implied.

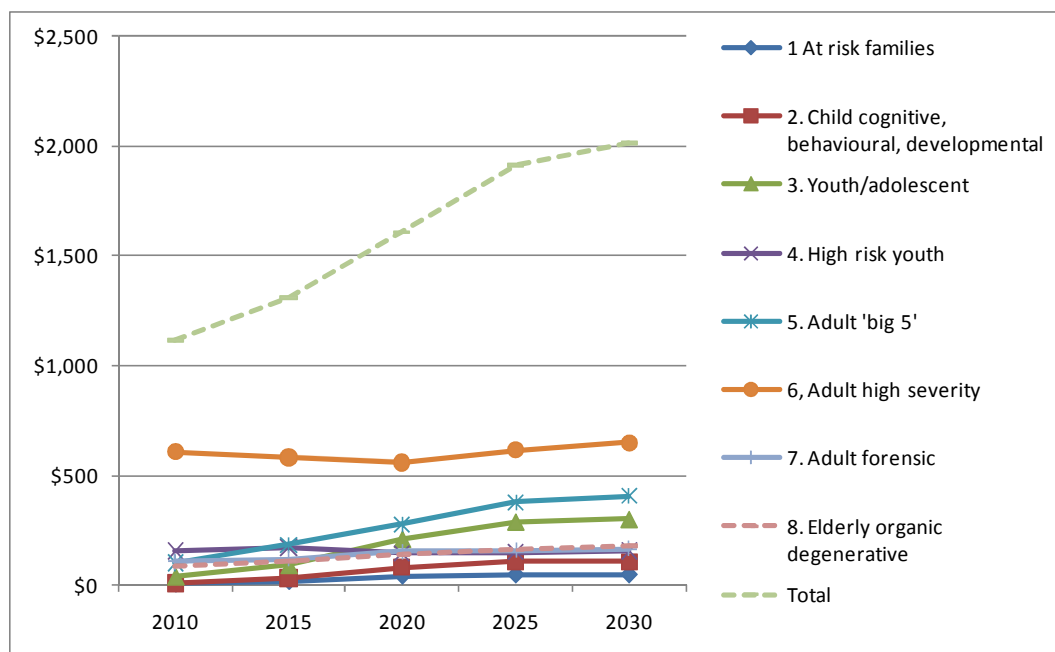
Figure 3: Relative change in response by consumer journey (Year 2010 = base 100)



The graph shows clearly that the greatest increases in access and response, relative to a 2010 base, will need to occur at either end of the life-course, with children and adolescents, because of the current low levels of investment and the clear downstream benefits, and with the elderly driven by a combination of demographic shifts and the potential benefits of using MH&A responses to ameliorate the burden of dementia. Addressing the impact of the adult 'big 5' high prevalence conditions is the third area of substantial growth, note that we have included the extension of primary mental health to the elderly within this journey.

Currently the overall public health system spends approximately \$1.2 billion on mental health services (Ministry of Health 2010). Using fairly crude estimates of the current service mix and resource intensity (mainly workforce costs), we have estimated the change in resources that would be implied:

Figure 4: Resources by consumer journey (\$ million)



The graph above shows a projected funding path growth from \$1.2b to \$1.6b by 2020, an increase of 44% which we estimate could be achievable by a combination of:

- a core MH&A funding increase of 30% – 40% using a constant GDP based share of health spend, combined with,
- resources from within general health, e.g. application of integrated MH&A services within primary care and hospital services to support better care for long term conditions and reduced out-patient demand for medically unexplained symptoms, and
- cross sector collaboration, e.g. with CYF to increase access for at risk children or with Work and Income to address the mental health needs of beneficiaries

In terms of application of resources within this envelope the graph shows that in absolute terms the greatest increases will be towards the adult/elderly high prevalence conditions, a growth of 170% from a modelled estimate of \$100m (including primary care, the primary mental health initiatives and AOD spend), to \$270m. However the integrated cluster of child/youth journeys 1, 2 and 3, taken together exceed this with a growth of 180% from a modelled estimated \$200m to \$480m.

With a major effort to integrate primary, community and specialist services for Journey 6 Adult Low prevalence/high severity, the scenario shown in the graph above describes a window of opportunity to realise productivity gains through the period of 2020 until population growth reverses this trend from 2020 onwards. The model represents possible productivity benefits arising in three areas:

- Data from detailed case level analysis (e.g. KPP or TAG)³ indicates that of the approximately 16,000 high needs people who have been in specialist services for more than two years perhaps 40 - 50% of these are stable, represent very low risk and could be supported in lower intensity shared care arrangements across primary and community layers of care (with specialist advisory support). Note that this group is already receiving relatively low intensity care in specialist/community settings so the proportion of resource applied to the 40-50% is likely to be modest relative to the resource intensity of the other 50% who represent more acute, high risk or unstable phases.
- The large majority of people accessing specialist outpatient MH&A services have relatively short durations of care. Evidence from integrated MH&A care systems⁴ show that a large proportion of this demand can be effectively addressed in augmented primary care settings, by provision of specialist liaison/consult advisory assistance in primary care and by opening up pathways to community support directly from primary care without the need for an outpatient event. The combination of these strategies could effectively reduce the demand on specialist outpatient care.

Adult severe "DS" vignette – aspects of a vision for 2020

Coordinated CEP practitioners are able to identify early psychosis and coordinate CEP informed treatment.

Preventive adolescent interventions applied in conjunction with school and family i.e. AoD treatment and educational support are used to keep DS at school and positively influence psychosocial outcomes.

Evidence based screening processes are introduced to identify all those entering prison with high likelihood of severe mental illness. DS is referred for treatment on day one

Ongoing psychological work (to address anxiety, dependency needs) is facilitated by widespread availability of "web based" CBT or other programs. This is begun as inpatient with support and supervision and continued as outpatient.

An ACT model Forensic Community Team is able to accept earlier community care of DS while resident in supervised community accommodation. Team is enabled to do this by CEP capability and skills in talking therapies to support ongoing psychological frailties. DS continues to access web based self help which he started as an inpatient...

*(Towards the next wave:
Consumer life course journeys
- p68 - 69)*

³ Knowing the People Planning provides a detailed individual level analysis of the situation and needs. The estimate above is a generalisation to the national population based on the results of district level analysis undertaken to date (Welsh 2010).

⁴ (Kates, McPherson-Doe, and George 2011): Integrating mental health services within primary care settings: the Hamilton Family Health Team.

- An integrated approach would allow a shift in focus for a proportion of our current specialist service people and resource towards achieving the greater access for the next cohort of high needs people in a primary health setting, i.e. supporting an integrated stepped care approach. While the resources freed from care in specialist settings maybe modest relative to the overall specialist budget, with the low care intensity and high levels of effectiveness of brief primary based packages of care it would enable a dramatic lift in access.

Towards a Future Capable Workforce

While MH&A responses could be categorised in many ways we have chosen a relatively simple structure of seven layers of care that can be used across all consumer journeys and have some utility in estimating the impact on the future workforce. We have attempted to represent some of the thinking used within stepped Care, i.e. that we are modelling additive layers of care rather than discrete alternatives. People are likely to be accessing more than one layer of service.

The seven modelled 'care layers' are:

- 1. Primary care** – Assumed to be the full spectrum of primary health with the nature of what is provided flexing appropriately across journeys, e.g. Lead Maternity Carers are included in the vision for Journey 1 'At risk families'. At this level we aim to capture the MH&A responses that are provided by 'business as usual' primary care but also could usefully be extended to cover the aspects of mental health support provided through general secondary care, for example rehabilitation services. Services inside this layer include more formalised recognition, (e.g. assessment), care planning, advice, self care support, brief problem solving interventions etc.
- 2. Social care** – With similar assumptions as above. This is used to represent, at least in some part, that the MH&A response is intertwined with social responses and some initiatives such as Whanau Ora, or utilising return to work as an intervention with MH&A health benefits, will increase this linkage. In its current state of development this layer of the model has not been used but in the future would enable a wider and whole of government view of MH&A resources for example including those from CYF, ACC or Justice.
- 3. Self care** – For this purposes conceived of a covering a full spectrum including; targeted health promotion/prevention, e-therapies, brief problem solving interventions to support self care, more structured whanau and informal career support through to various levels of peer support for those with more complex needs.
- 4. Organised primary MH&A packages of care** – Covering both GP team care, and "packages of care", (e.g. brief interventions, talking therapies etc), accessed and delivered through primary providers, the brief interventions currently delivered under the Primary Mental Health Initiatives are one example. While targeting people with moderate to severe MH&A issues these can also be directed towards people with severe but stable conditions, co-existing mental and physical conditions, unexplained medical symptoms etc.
- 5. Community based MH&A support** – A step up in intensity associated with greater use of NGO MH&A team based case management and community support. The nature of the specific response will alter substantially by journey across the life course
- 6. Specialist MH&A support** – In the future model of care specialist MH&A clinicians will undertake both specialist roles, and advisory and support roles within the shared care or integrated care environment proposed. It is anticipated that all specialist MH&A clinicians will be in roles which include a "generalist" element located in a primary care or community-based MH&A

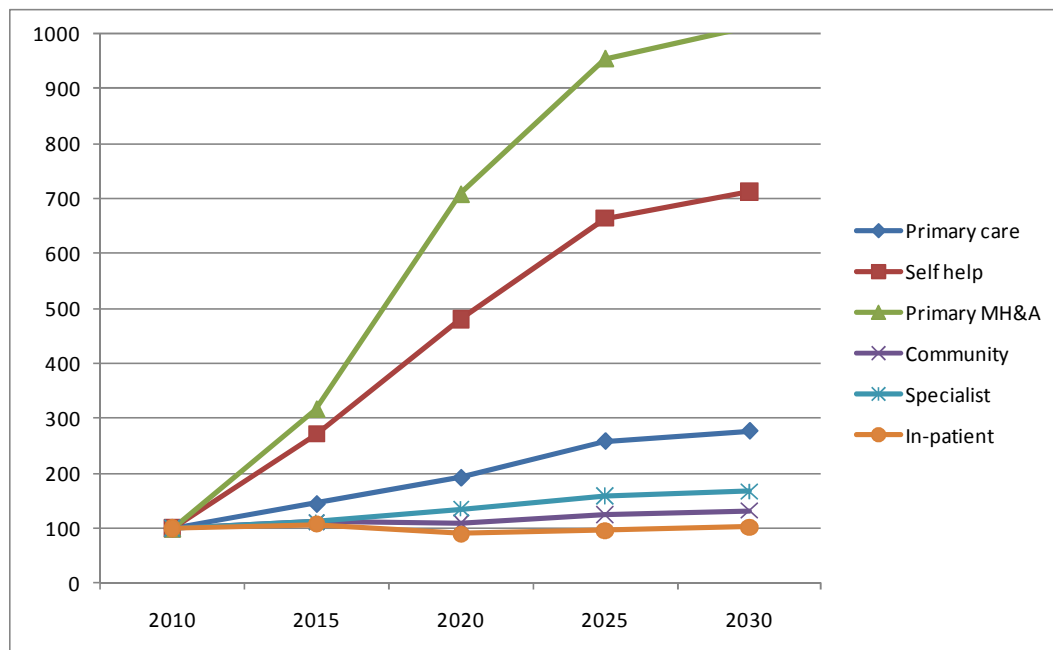
support setting, and a specialist element located within specialist services - Specialist clinics, CAT teams etc.

7. **Hospital inpatient and acute services support.** These will remain an essential element of the future service mix. In our modelling approach we have drawn on the experience of areas that have invested heavily in integrated specialist and community based services that show that continued modest reductions in in-patient beds are feasible with effective community support.

By applying the changes in service type and level implied by the vision for each of the eight consumer journeys we have modelled the possible impact on current service activity and capacity, as shown in the following diagram.

Reiterating the meta-theme of the imperative to address persistent inequalities the capability of each layer of service to be effective for Māori and Pacific people will be critical. Higher prevalence levels and changing demographic mix for Māori and Pacific will require that access rates and service responses for these two populations will need to rise at substantially higher rates than for the population as a whole. Our preliminary modelling captures changes to need and service demand due to ethnicity but future modelling could extend this to the service layers described above which would allow issues of the required 2020 workforce cultural mix to be explored.

Figure 5: Relative changes in response by service level (2010 base = 100)



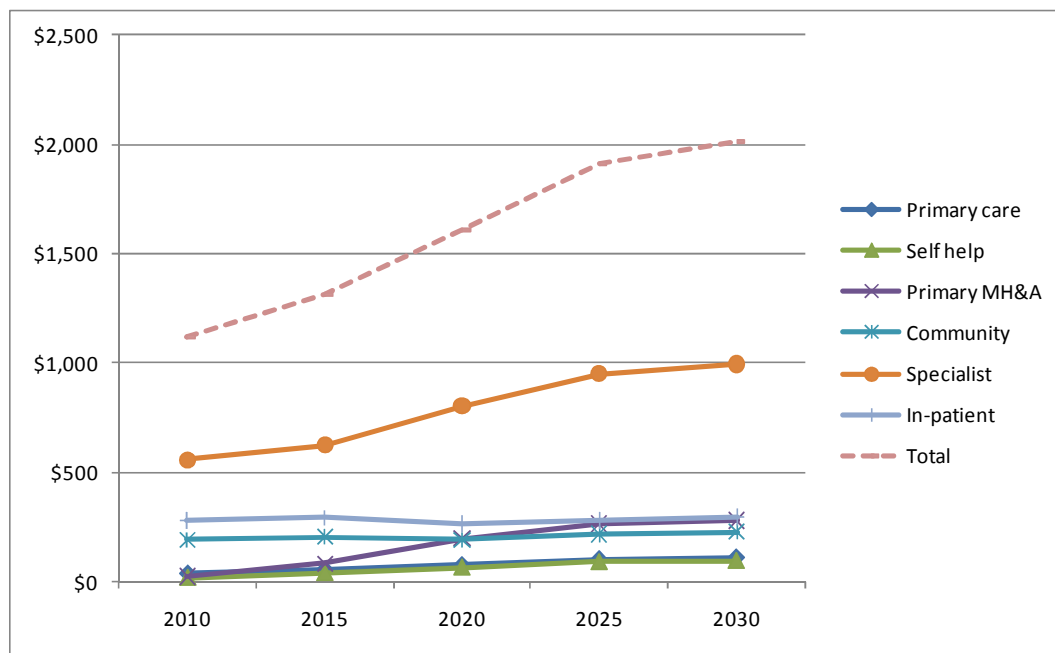
The outstanding feature of the analysis of relative change in activity from our current base is the dramatic increase needed in three areas:

1. **Primary based MH&A packages of care;** Structured assessments and planning, brief interventions and talking therapies. We need a 7 fold increased in response in this area by 2020. This will require a combination of changes to workforce and roles:

- Development of specialist skills and approaches to provide effective support in primary health settings.
 - Building general practice skills in the management of mental health and the use of brief interventions.
 - Better utilisation of our existing community and NGO MH&A resources to support primary health, by enabling direct access to existing services, development of formalised relationships with practices or emerging IFHCs to support primary based interventions.
 - Development of capability for detection, assessment in primary care and integration of brief AOD interventions within primary mental health together with support from AOD specialist services.
 - Training and credentialing of psychologists, MH nurses, and other health professionals to provide primary based packages of care as part of an integrated MH&A system that includes self care, primary care.
 - The potential application of the UK approach of alternative workforce for delivery of brief talking therapies should be explored to see if it can contribute to lifting capacity and lower costs of care.
2. **Supported self care together with whānau and family support;** Across the spectrum of health promotion, supported self care, e-therapies and whānau/peer support we need a 5 fold increase in this area. This is an area of high priority development to develop coherent, multi-level and scalable approaches of support and to build the capacity of both people themselves and the self care support workforce.
3. **Primary care;** This service layer represents the capacity of general health workers to provide MH&A support during the course of 'business as usual' care interventions, including assessment, advice, problem solving, self care support. Effective capacity in this area needs to at least double in our 2020 vision. This has substantial implications for the training and credentialing requirements of general workforce.

Taking resource usage in dollars as a surrogate of the absolute changes in workforce resources that are implied we have used the same relatively crude estimates of resource intensity to each layer and journey.

Figure 6: Changes in modelled resource usage by service level (\$million)



Where-as the previous graph depicted relative changes in activity within each service layer the graph above shows that, despite the shift to lower intensity care demand on our specialist resources, (predominantly mental health nurses but including psychiatrists, clinical psychologists and other skilled workforces) will continue to rise.

Critically we need a different skill mix within these resources that mirrors the emphasis on different consumer journeys; substantial increases in those involved with child and youth, an increase in our specialist workforce able to work within the primary/community settings for adult and elderly – particularly for those in the prodromal, early onset stages and for those people with complex situations and stress but not necessarily severe diagnoses.

Critical Steps Towards the Next Wave

To start building the next wave we are proposing a set of recommendations across seven areas: (For more detailed recommendations see Appendix 1).

1. **Adoption of a whole of system, person centric view that represents the large majority of MH&A needs issues and opportunities.**

The report proposes eight consumer journeys across the life course from infancy through to old age as a means to achieve this. We are advocating a substantial change in mix of response while preserving the gains made to date in addressing severe mental disorder. Bringing coherence, integration and synergies across the system as a whole is a critical step towards the 2020 vision.

A sector wide process of aligning our collective thinking, outcomes, indicators, service frameworks, funding and capability development towards this view is recommended. A partnership with the Mental Health Commission and Ministry of Health to develop a new 'Blueprint' (that includes addiction), would be a tangible step towards this goal. This would allow wider consultation, testing and refinement of the ideas contained in this report. Health Workforce should consider acting as partner to facilitate development of issues of roles, professional support and regulation, scopes of practice and capability/capacity that will emerge.

2. **Adoption of a wider scope for MH&A services that recognises the impact of mental health issues on child development, physical health, education, employment and criminality.**

In so doing we are explicitly seeking to leverage existing resources, within health, across government sectors and across both public and private sources of funds.

We recommend a proactive, positive participation of the MH&A sub-sector with this wider community to demonstrate new solutions and the value of building MH&A capability. A partnership with social agencies in developing the role of MH&A services in supporting return to work for beneficiaries or those at risk of losing employment could be a tangible step towards this goal. An active demonstration site development process is recommended to explore the service, practice and

Adult AOD" vignette – aspects of a vision for 2020

Problem drinking will be picked up and responded to earlier in primary care. Greater integration of primary care, mental health and addiction services, including integrated into primary level health centres and primary health care and mental health interventions available at addiction services.

Local systems of care in which primary care, addiction, mental health care providers are aligned and with other related systems. Short waiting lists to maximise responsiveness and minimise non-attendance

Peer and community support linked to social services including employment and welfare and housing. Ease of navigation by consumer often initiated by GP but other means of access also available, such as web-based material

If referred is from primary care then they would stay involved, to ensure continued support following more intensive specialist phases of intervention with a chronic care model of care approach for ongoing, relapsing disorders... (Towards the next wave: Consumer life course journeys - p68 - 69)

workforce implications with social sector partners.

- 3. Utilise the whole of life course and wider scope to generate a next wave of evolution of MH&A services to address inequalities, for Māori, and for Pacific peoples.** We believe that the whole of system, person centric, life course approach represents an opportunity for more effective action on the drivers of inequalities in mental health and addiction together with a valuable contribution of mental health to wider health, social and economic inequalities outcomes. The substantial increases in self care, primary and community support together with the emphasis on early intervention will require development of models of care, workforces and support systems that are effective for these populations.

A practical starting point should be a commitment to supporting emerging Whānau Ora development initiatives with effective MH&A service responses and capability development. Demonstration partnerships with Whānau Ora initiatives would enable HWNZ to assist development of service, roles and capability for the most complex and high needs situations.

- 4. Facilitate the development of a coherent people and family/whānau centred approach to supported self care/whanau care - 'self directed positive mental well-being'.** On a wider basis the principles of self determinacy that underpin the recovery model, peer support, person centred planning, whānau ora and emerging self directed e-therapies provide a development ground for a strong shift towards a self directed, positive mental wellbeing approach. This should operate across a spectrum from mental health promotion, positive self care, e-therapies, whanau and peer support. Mounting evidence exists for these interventions to be effective at a relatively low cost. Note also that capability developments in self/whanau care will have broad applicability across long term conditions and care for the elderly, a combined approach across all areas should be considered.

Elderly organic degenerative
– aspects of a vision for 2020

Higher "index of suspicion" rate in primary care, family etc., cognitive screening part of regular check up in primary care.

Easy and rapid access to specialist assessment for diagnosis. Engage specialists early when diagnosis unclear or complicated, need appropriate investigations and assessment, probable future use of neuroimaging, other diagnostic & technological advances.

Once diagnosis made (with investigations) a number of "tasks" need to occur across of spectrum of potential support needs, (tailored for individual and family).

Approach will require ongoing coordinated care with regular review of issues arising. Should follow primary care led coordinated approach, but factor in specific assessments, and reviews and/or specific supports as and when needed, based on early identification of need and not reactive to crisis. Will involve specialist reviews and NGO and voluntary sector input...

(Towards the next wave: Consumer journeys – p89 - 90)

We recommend HWNZ supports development of a strategic initiative for 'self directed positive mental health and self care' in order to leverage the capability of self care and informal carer resources to achieve a lift in access and

productivity in MH&A. This could also usefully include integration with “Better @ Work” style services to enable people to gain the substantial health benefits of employment and support employer funded work-place initiatives.

HWNZ should support demonstration initiatives that take an integrated approach across mental health promotion, positive self care, e-therapies, whānau or peer supported self care and primary care practice to demonstrate the wider value, costs and benefits of utilising self care and informal carers in MH&A.

5. A shift in emphasis of MH&A services to systematically increase investment in high impact, high return consumer journeys; infant/child, adolescents, high prevalence adult and elderly.

- a. Strengthening and scaling up early, preventative responses to the development of mental health issues**, from the peri-natal period through infancy, childhood and adolescence, that have lifelong consequences. Compelling evidence⁵ exists for the high impact and cost effectiveness of interventions in these areas.

Our peri-natal response can be strengthened through simple steps to strengthen recognition of MH&A issues during pregnancy and early childhood, and access to parenting skills programmes, together with increased capability to support mothers for substance abuse, depression etc. Detailed workforce recommendations are contained in our summary.

We recommend HWNZ support demonstration sites that show the systematic integration of initiatives to improve access for vulnerable children to early intervention programmes to reduce developmental stress in young children, e.g. leading to conduct disorder with associated life-long risk of poor outcomes and expensive demand on health, education and justice resources.

We are advocating urgent attention to the adolescent years as a period of startling growth in prevalence of anxiety/depressive issues at a critical transition stage of life with downstream consequences across health and wider sectors. Innovation in responses are needed, as is greater integration across sectors with a wider distribution of capability in a range of interventions.

- b. Building on primary mental health initiatives to scale up primary/community based responses to MH&A issues which fall outside the current ‘3%’ but are severe in their impact on people’s overall health and ability to function at home or at work.**
Unaddressed MH&A issues for this population are direct influences on

⁵ (Gluckman 2011) Improving the transition – Reducing social and psychological morbidity during adolescence

demand for medical care, e.g. comorbidities with long term conditions, medically unexplained symptoms⁶ and demand for social services.

Given the large increase in capacity required in this area we propose HWNZ convenes a more focused 'phase 2' working group to develop specific recommendations in this area. This group should include clinical and service leaders with experience in; developing service and workforce capability in primary mental health, management of complex physical long term conditions, out-patient demand driven by medically unexplained symptoms and, from the social sector the issues and needs of those on sickness and unemployment benefits.

- c. Stronger focus on the MH&A issues for the elderly, particularly where relatively low intensity interventions can help maintain functionality and independence**, e.g. for depression, alcohol, loss of will to live and early onset dementia. Service access for adults over 65 years is relatively low and complicated by a range of co-occurring physical and cognitive conditions. However the evidence for beneficial impact interventions such as talking therapies for the elderly is strong. Dementia is predicted to become the largest single resource use area in the health sector. Evidence also indicates that approximately 40% of elderly acute medical bed usage relates to depression forming the largest single driver of total usage⁷. MH&A interventions in these areas can generate better health outcomes at a lower cost to the health and social support system by maintaining independence or delaying the onset of higher cost care and support.

This is an area for integrated action with the recommendations of Aged Care Workforce and Service Review which has focused on support for maintaining functioning for people with moderate dementia in lower cost home settings.

Overall this area represents an ambitious programme of investment. Some of the resources to achieve this can be supported through the development of a more integrated approach across primary and specialist/community care, (see below) some will be achieved through smart capability development to leverage the 'business as usual' resources of primary and hospital care.

However we believe that additional investment in services and workforce will still be required. We recommend that there is a whole of government view taken to develop a sustainable investment pathway for MH&A that recognises that the costs of poor access to mental health services falls heavily on education, social services, justice/corrections and on loss of

⁶ Medically unexplained symptoms, (or perhaps more correctly 'bodily distress syndromes') are a major cost to the health system. According to a recent UK analysis (Department of Health 2011b): *The economic case for improving efficiency and quality in mental health*, they account for 27% of all primary care attendances, 8% of prescriptions, 22% of all hospital outpatient attendances and 8% of inpatient bed days.

⁷ (Anderson et al. 2009): The need to tackle age discrimination in mental health: A compendium of evidence.

productivity across the economy as a whole. The development of the investment pathway should include representatives across these agencies and consider how the combined resources can be aligned to develop the sector capability and capacity needed and drive for the potential savings that could be achieved.

6. Fast action on innovations that will increase the effective productivity of specialist mental health services and leverage scarce workforce capacity.

Central to the changes proposed in this report is action that increases the effective productivity of our most constrained specialist resources. Internationally a number of innovations in service configuration have demonstrated potential to further this goal; active use of community care and peer support, individualised recovery planning tools, integrated or shared care with primary health and community care, service collocation and consultation/liaison models, utilisation of integrated stepped care service designs.

While many of these are operating in New Zealand⁸ most are functioning as single points of innovation, learning how to integrate, apply and scale in New Zealand settings should be the focus of high priority, comprehensive, well led and resourced demonstration and evaluative learning projects.

7. Rapid development of the workforce roles, functions and support needed to deliver on the integrated MH&A vision. While advocating a number of detailed changes in specific workforce areas we believe that a four pronged approach to overall workforce development should be initiated immediately:

- a. Capability in shared collaborative care; Complementary practices and skills are needed for specialist MH&A clinicians (psychiatrists, psychologists and specialist community MH&A nurses) and primary clinicians (GPs and nurses) to effectively operate a shared MH&A care environment which will include a substantially larger role for primary based care management of existing secondary patients and direct primary based support. This will require advanced supervisory skills to facilitate the operation of a diverse workforce with a wide range of skills and scopes of practice.
- b. Increase the capacity of community mental health nursing for moderate to high intensity community and primary based talking therapy interventions.
- c. Explore the value of a 'low intensity psychotherapy' capability and workforce in primary care, similar to that introduced in the UK, (encompassing brief problem solving, CBT, self care support, navigation capabilities). This could provide an alternative workforce that can be rapidly developed using existing workforce development capabilities.

⁸ For example: ProCare operates a primary based, specialist supported service that provides access to enhanced levels of care within primary health. Canterbury DHB has implemented initiatives to provide better integration between primary and specialist mental health services including direct GP access to community mental health support. Te Pou is supporting the development of a collaborative of DHBs to utilise detailed knowledge gained through the use of Knowing the People Planning to integrate effective recovery action with service step down processes.

- d. Generate primary health capability and capacity in MH&A and brief interventions: includes MH&A 101's, building on the capability developed through the primary mental health and practice nurse credentialing initiatives.
8. **A continued investment in a core of specialist MH&A services**, staffed by a mix of highly trained MH&A professionals that will continue to see more complex cases with easy access from, and back to, lower levels of care. Four areas are considered critical by the working group:
- a. Coherent approach to increase the attractiveness of specialist mental health roles in the workforce: While demand for specialist skills continues to rise there is a continuing trend of declining supply in key roles such as psychiatry. Our specialist workforce is aging and we are dependent on imports to supply our needs. Psychiatry provides the core of our specialist services and even as we continue to diversify our mental health workforce, we will need to find ways to both increase the supply, better utilise and leverage the capacity we have and retain them with attractive environments in which to practice.
 - b. Core capability and capacity to respond to acute and severe mental illness. Progress within the existing wave of MH&A development in building this capacity has been hard won. While advocating urgent movement towards the next wave of a wider scope and more integrated MH&A service the working group is concerned that the capability to respond to the acute and severe situations could be inadvertently destabilised.
 - c. Recognition of the value of addiction services as both a speciality and as an integrated part of MH&A. While advocating that AOD and MH need to be considered an integrated service in order to address the complexity of co-occurring conditions we are concerned that a sustainable specialist capability in AOD needs to be maintained and not lost.
 - d. Better utilisation of scarce Forensic MH capability. There is continued pressure on Forensic capacity arising from both an over utilisation of Forensic beds by patients with high and complex needs and a rising prison population with a high prevalence of MH&A issues. More effective step down from Forensic bed is needed, requiring integration across Forensic and specialist MH services.

“Tactically Savvy” Change

While our brief excluded considering the processes of change it is clear to the working group that the scope of the 2020 vision will not be achieved without ‘tactically savvy’ next wave change thinking that engages the diverse MH&A sector, along with wider health and intersectoral partners in the process of thinking, testing and practical learning.

Firstly and most importantly, the 2020 vision will need leadership. The working group has acted as a think tank – the vision and ideas that have been developed need constructive challenging and synthesis of thinking from a wider circle of clinicians, service managers, funders and policy people.

There are many leaders in MH&A services across the country who have already made steps towards the next wave and in doing so have the understanding of what an even better vision could be like. If this has been a phase 1 process we need phase 2 that lets these leaders engage and use their experience to build on this starting point.

A practical way forward would be to utilise the processes of demonstration sites and collaboratives as the test vehicles for moving to the next wave. The critical issue is not so much demonstrations of innovative services or workforce since there are many existing innovative initiatives. In our view the challenge is to facilitate system level demonstrations of how the component parts of the next wave can be developed as an integrated whole.

To do this we believe that practical leadership will need at both national and local scales. National leadership can be fostered and facilitated by central agencies but it is important that it remains sector led in its essence.

We welcome the opportunity for this report to help contribute to the thinking of the Ministry of Health’s Service Development plan and similarly to opportunity for this work to seed thinking on a new blueprint by the Mental Health Commission, if they can be undertaken in a way that fosters the sector led, sector engaged process needed.

Finally we thank Health Workforce NZ for the opportunity to undertake this review on their behalf and urge them to continue to develop their capacity to facilitate the development of sector wide solutions to the issues of fragmentation of practice, roles and inter-professional collaboration that will be needed if this vision is to be realised.

Appendix 1: Towards the Next Wave – Detail Recommendations

Looking ahead the working group is mindful of many existing innovations across the MH&A sector in New Zealand and the need to build practical pathways that utilise this energy and commitment with building blocks and demonstration sites expected to be part of the recommendations.

The group also understands that the process and sequence of change is vital in a resource-constrained environment. Any tactically savvy process of change must ensure safety and quality, which is critical when proposing changes that impact on specialist services to high needs consumers.

Workforce and Service Development Recommendations

By 2020 we will see ...	Pragmatic steps we can take now ...	Impact
<p>1. Integration across current boundaries particularly primary-secondary, with primary care clinicians “specialising up” with advanced competencies and specialist clinicians “generalising down” to support of primary care and NGO services)</p>	<ol style="list-style-type: none"> 1. Build on current pilots of primary-secondary MH integration being sponsored in 5 DHBs by the MoH, and existing initiatives which have developed structured processes to enhance entry and exit from secondary MH&A Services (e.g., ProGress+ project ADHB) – specifically, support and evaluate a number of projects to take a systematic and system-wide approach to refocusing the role of specialist MH&A clinicians/teams, across the primary-secondary interface (to improve care for people with episodes of need to MHS intervention), and the clinical-support/NGO interface (to improve care for people with ensuring need for M&A intervention). 2. Prioritise and resource, access of advanced GP trainees and current GPs, to the Advanced Competencies in Primary MH&A training being developed by RNZCGP. 3. Prioritise and resource, extended access to training in value-added assessment processes for MH&A; and effective interventions such as CBT, DBT, and addiction therapies etc, for the MH&A clinician workforce especially MH&A nurses 4. Provide national-level mandate for dropping requirement that all patients of specialist MH&A must have a clinical “case manager” – thus enabling care coordination to be led by either primary care/the person’s GP, or a support worker with clinician back-up 	<ol style="list-style-type: none"> 1. Will affect all consumer journeys 2. Changes required to service pathways and funding support to facilitate greater integration 3. Critical role of integration to facilitate refocusing and leveraging of limited resources 4. See also recommendation 9 below
<p>2. Wider range of generalist skills and competences across the entire primary care workforce to recognise and respond to MH&A issues</p>	<ol style="list-style-type: none"> 1. Begin substantially increasing the number of primary care / community navigator roles 2. Increase the number of health workers in primary care offering appropriate counselling/talking therapy interventions and therapies for substance abuse 3. Develop a supervision, risk management and support framework that specialist staff can use to appropriately support 'navigator' and other primary care / community roles 4. Industrialise the availability of e-therapies and self help support. 	<ol style="list-style-type: none"> 1. Will affect all consumer journeys 2. Assumes that much of this can be achieved by refocusing the role of the current specialist MH&A clinician workforce especially MH nurses

By 2020 we will see ...	Pragmatic steps we can take now ...	Impact
3. A substantial increase in MH&A capability within general health	<ol style="list-style-type: none"> 1. Work with health professional regulatory authorities and tertiary education providers to ensure that MH&A content relevant to this new approach is included in health professional curricula 2. Extending access to the newly developed MH101 mental health literacy courses, for all general health professional staff. Develop an addiction 101 (A101) to better address addiction issues. 3. Start consultation with all specialist colleges, organisations, boards to gain their support for this shift 	<ol style="list-style-type: none"> 1. Will affect all consumer journeys 2. Likely that as capability increases effective recognition of MH&A issues will also increase. Requires development of suitable range of low intensity service responses to provide options within limited resources
4. A range of effective and cost efficient person and whanau centred self care and informal career support capabilities	<ol style="list-style-type: none"> 1. Specific recommendations within this; support development and wider usage of e-therapies, (e.g. The Journal), whanau based mental health “first aid” education (aligned with MH101 programme), group self-management programmes (e.g., Stanford self-management education) 2. Support increased training and utilisation of structured self-management support by clinicians in routine practice (e.g., Flinders self-management support) 3. Work with initiatives developing or using care navigators working in primary / community settings to develop effective MH&A capability. Evaluate effectiveness and business case for wider deployment as part of an integrated MH&A system 4. Widening the scope of peer support 	<ol style="list-style-type: none"> 1. Will affect all consumer journeys 2. Review assumes that this may be the most effective way to increase access to MH&A treatment while lowering the average cost per episode of care. Critical that self care and informal career support is designed to be part of a cost efficient system in order to support the lift in access anticipated
5. Mothers with MH&A needs identified early and offered timely support that matches their needs and situation	<ol style="list-style-type: none"> 1. Work with the Midwifery Council of New Zealand and RNZCGP to develop improved systems of coordination and continuity of care of pregnant women between GPs and midwives – and mandate this as expected practice for both professional groups 2. Work with the Midwifery Council of New Zealand to update midwifery scope of practice and model of care to include screening for antenatal depression 3. Work with early childhood providers such as Plunket nurses to to screen for postnatal depression and other mental health problems and to provide 	<ol style="list-style-type: none"> 1. Consumer Journey 1: At risk families -1 to +3 years; pregnancy, post natal, maternal and infant wellbeing, parenting 2. Emerging evidence that this will reduce downstream demand in child MH&A services for children and adolescents because parents are supported and environments

By 2020 we will see ...	Pragmatic steps we can take now ...	Impact
	<p>appropriate referral and support [reference]</p> <ol style="list-style-type: none"> 4. Use midwifery links with primary / community care to open access routes to support for identified need 5. Resource and generalise, pilots developed to date of implementing routine practice nurse screening for post-natal depression at infant immunisation visits 6. Additional focus on addressing mental health needs for children who have been identified through CYF contact 	<p>improved.</p> <ol style="list-style-type: none"> 3. Initially there may be an increase in demand for adult MH&A for mothers
<p>6. Improved access to early intervention and parenting programmes, for “young families at risk”</p>	<ol style="list-style-type: none"> 1. Support and resource a number of pilots of systematic local cross-sector (health, CYFS, community agency) approaches to identification of vulnerable pregnant women/couples, outreach to, and engagement in evidence-based parenting skill interventions, (Currently this includes “Triple P”, Incredible Years, Parent Child Interaction therapy, Nurse Family Programmes, Early Start) 2. Increase access to training for MH&A workers to supervise and provide evidence based interventions as outlined above 3. Broaden the role of Child and Adolescent Mental Health Services (CAMHS) to ensure earlier and easier access for children and youth with conduct problems or presenting with early mental health problems (as per first recommendation above re refocusing role of specialist clinicians) 	<ol style="list-style-type: none"> 1. Affects consumer Journey 1: At risk families -1 to +3 years; pregnancy, post natal, maternal and infant wellbeing, parenting 2. Affects consumer journey 2: Children with cognitive, behavioural and developmental disorders 3. Emerging evidence that these interventions are cost effective in their impact in early years of addressing maternal mental health issues and developing parenting skills
<p>7. Youth and adolescents with high prevalence anxiety and depressive disorders identified early and supported in appropriate environments (i.e. community, schools,</p>	<ol style="list-style-type: none"> 1. Promote utilisation of IT innovations and bibliotherapy for early support, treatment and tracking e.g. Sparx. 2. Promote use of ‘The Lowdown’ website for youth depression 3. Explore options for utilising social networking 4. Increase the skills of adolescents, teachers, school nurses and counsellors and primary care workers in early detection of mental health and addiction problems 5. Develop integrated primary-based MH services in settings where young people 	<ol style="list-style-type: none"> 1. Affects consumer journey 3: Youth/adolescent anxiety and depressive disorders 2. Assumption is this will reduce downstream demand in adult MH&A services. 3. Also assume an increase in work placement and retention for this

By 2020 we will see ...	Pragmatic steps we can take now ...	Impact
youth centres)	<p>will attend e.g. through schools, one stop shops</p> <p>6. Identify innovative school based programmes that are already running. Extract learning and spread across country</p> <p>7. Increasing training in brief forms of psychotherapy (i.e. based on CBT and/or IPT principles) to deliver interventions in primary care or youth friendly settings</p> <p>8. Increase work placement and retention support for this group – in line with Social Welfare working group recommendations</p>	group
8. Youth and adolescents with conduct and other externalising disorders identified early and supported	<p>1. Increase resources available to address conduct disorders in youth and adolescents</p> <p>2. Particular focus on expanding programmes relating to school participation and risk of trajectory towards high risk behaviour, addiction and criminality</p> <p>3. Increase the skills of teachers, school nurses and counsellors in early detection of conduct problems and screening/brief interventions</p> <p>4. Train primary care providers in screening/brief interventions with at risk substance abuse</p> <p>5. Explore development of funding of multimodal programmes across families, schools, teachers and peers e.g. Multisystemic therapy, Functional family therapy</p>	<p>1. Affects consumer journey 4: High risk youth and</p> <p>2. Affects consumer journey 3: Youth/adolescent anxiety and depressive disorders</p> <p>3. Assume will have impact through reduced downstream demand in adult forensic services and reductions in criminal behaviour and associated costs</p>
9. Increased numbers of stable higher needs population who have 'stepped down' from, or out of, specialist services to lower more appropriate levels of support	<p>1. Develop clear discharge or 'step down' pathways (including understood processes for ready access to specialist review) for people in a stable state of recovery from severe/enduring MH conditions, to enable discharge from specialist MH&A services to community/primary care led support e.g. Building on existing programmes such as ADHB "Progress+" project, and/or utilising tools such as Knowing the People Planning (KPP), and/or the Threshold Assessment Grid (TAG). Such pathways will need to find ways to address the current cost of primary care as a disincentive to discharge.</p> <p>2. Address the current planning/funding barriers to such people being able to retain</p>	<p>1. Affects consumer journey 5: Adult 'big 5 high prevalence' and</p> <p>2. Affects consumer journey 6: Adult low prevalence, high severity</p> <p>3. Assumes that severe and enduring and severe/unstable will still require same access and quality of care in specialist services, (likely to be one third to perhaps 50% of existing</p>

By 2020 we will see ...	Pragmatic steps we can take now ...	Impact
	<p>support service/NGO input to their care after discharge from specialist MH&A services</p> <ol style="list-style-type: none"> 3. Increase the resources available to existing primary mental health initiatives and the capability of 'business as usual' primary health as a base for supporting step down pathways 4. Examine "home-grown" examples where this has been successfully implemented 5. Undertake a stocktake of the people who fall into this category using a process such as KPP and/or TAG 6. Utilise this information to identify those with continuing high and complex needs (including those in the forensic sector) who will require continued high intensity input from specialist services will require ongoing MH&A input 	<p>annual consultations)</p> <ol style="list-style-type: none"> 4. Assumes balance of consultations can be handled by a mix of primary care, specialist supported primary care or short duration specialist care plus forms of step down or shared care 5. Assumes that cost per episode of care for the second group can be reduced below that of existing care in order to help refocusing resources on needs of other consumer journeys
<p>10. Increased support for community and primary workforce to manage referrals to specialist services and support specialist MH&A population as required</p>	<ol style="list-style-type: none"> 1. Refocus part of the specialist mental health and addictions clinical workforce to provide primary-care based assessment, brief intervention, service navigation, and support capability 2. Refocus the community MH&A and NGO resource released from the 'step down' of stable specialist MH&A population, to support increased capacity and access to integrated 'stepped care' services from primary care, including e-therapies, talking therapies, screening and brief interventions for substance abuse, support services including supported employment, etc. 3. Design models of care that enable scarce specialist workforce to 'reach down' and support / supervise groups of workers to maintain and support people in primary / community care. Examples are locating experienced mental health nurses and nurse practitioners in primary care settings, secondary care based psychiatrists having regular clinics and close personalised liaison with primary care practitioners. The model here is of specialist clinician job descriptions combining a "reaching or generalising down" into primary care component, with a "specialist area of expertise" component. 	<ol style="list-style-type: none"> 1. Affects consumer journey 5: Adult 'big 5 high prevalence' and 2. Affects consumer journey 6: Adult low prevalence, high severity 3. Assumes this will greatly increase numbers of people accessing specialist support in primary care, and significantly reduce the number of people who require referral into specialist services (e.g. Nick Kates research).

By 2020 we will see ...	Pragmatic steps we can take now ...	Impact
11. MH&A support aligned and integrated within DHB long term condition programmes	<ol style="list-style-type: none"> 1. Enhance models of care to increase recognition and access to brief primary MH&A interventions as part of long term conditions management programmes in primary care (e.g. CCM programmes) 2. Increase the access to specialist MH&A expertise (for example, health psychology) available or operating within long term conditions programmes (namely diabetes, heart disease, pain and cancer) 3. Extend access to Stamford self-management support programmes such that these become a routine component of ALL CCM programmes 4. Apply insights from LTC self-management group programmes, and self-management support training for clinicians, to management of mental health and addiction conditions in the community 	<ol style="list-style-type: none"> 1. Affects consumer journey 5: Adult 'big 5 high prevalence', consumer journey 6: Adult low prevalence, high severity, consumer journey 8 'Organic Degenerative' 2. Assumes this will improve outcomes for people with long-term conditions – both medical and MH – and release savings due to increased adherence with lifestyle changes and treatment, and reduction secondary/tertiary healthcare utilisation.
12. Better integration of MH & A services with one another and closer links with wider health and social service providers	<ol style="list-style-type: none"> 1. Local systems of care in which primary care, addiction, mental health care providers are aligned with each other and with other related systems 2. Case management for people with complex treatment needs will to be more than simply service brokerage. Greater service liaison and integration 3. AOD and MH need to work more closely together, such as can occur with collocation. Clinicians need both skill sets. AOD should not simply disappear into MH however, as a specialist role is still required. AOD absorbed into MH works only so long as the enlarged MH team has the benefit of staff with previous specialist AOD experience, but with the passage of time these people retire/move on and the MH team is at risk of overlooking addiction issues and under serving this population. 4. Need an addiction informed/skilled MH service and MH informed/skilled addiction service and good relations between. Acknowledge cross over but also areas of expertise 	<ol style="list-style-type: none"> 1. Affects consumer journey 5: Adult 'big 5 high prevalence', consumer journey 6: Adult low prevalence, high severity, consumer journey 8 'Organic Degenerative'
13. Increased availability of work retention and back to work	<ol style="list-style-type: none"> 1. Develop strategies to assist people with mental health and addiction problems to remain in paid employment including reviewing and learning from ACC 'Better@Work' programme and increase access to workplace support. 	<ol style="list-style-type: none"> 1. Affects consumer journey 5: Adult 'big 5 high prevalence', consumer journey 6: Adult low prevalence, high severity

By 2020 we will see ...	Pragmatic steps we can take now ...	Impact
support for people in work, and those on benefits with MH&A issues	<ol style="list-style-type: none"> 2. Explore use of Social Impact Bonds (http://en.wikipedia.org/wiki/Social_impact_bond) in this area 3. Begin integration of employment services across primary and secondary care. 	<p>severity</p> <ol style="list-style-type: none"> 2. Assumes wellbeing is strongly linked to the involvement in employment and other associated activities (volunteering etc). Investing in this area has the opportunity for large financial returns through reductions in long term benefit use and the impacts on children and families
14. Increased detection and treatment of mental health conditions in justice and corrections settings	<ol style="list-style-type: none"> 1. Work with Departments of Justice and Corrections to enhance pathways for identification, assessment, and support for people with MH&A issues who come in contact with Justice and Corrections system (e.g. watch-house nurses and soon to be trialled Alcohol and Drug Courts) 2. Explore transferring responsibility for the provision of primary health services in prisons from corrections to health (Reference to UK and NSW initiatives) 3. Examine what strategies are currently in place for staff in corrections in the detection and management of mental health and addiction problems; and then build on these. 4. Increase availability of Forensic beds by transferring high and complex needs MHS patients in Forensic MH services to specialist MHS after stocktake of numbers, needs and training requirements of MHS staff 5. Explore use of Social Impact Bonds in this area (http://en.wikipedia.org/wiki/Social_impact_bond) 	<ol style="list-style-type: none"> 1. Affects consumer journey 7: Adult forensic and/or Justice system involved 2. Expected impact from reduced recidivism and impact of reduced harm from reoffending

MACRO ENVIRONMENT

By 2020 we will see ...	Pragmatic steps we can take now ...	Impact
3. Integrated patient	<ol style="list-style-type: none"> 1. Build on existing experience (e.g. Auckland region access to shared MH 	

By 2020 we will see ...	Pragmatic steps we can take now ...	Impact
information systems	records) and piggy back on NHITB sponsored developments in shared care	
2. A different mix of resourcing and funding arrangements for MH&A sector	<ol style="list-style-type: none"> 1. Ensure the results of this review are fed into the Government's current work on a mental health and addictions service development plan and the Mental Health Commission's review of the Blueprint. 2. More flexible contracts that expect collaborative working across boundaries. Funding arrangements that cross traditional boundaries (eg with justice and also primary care) 	
3. All key agencies are involved in planned changes	<ol style="list-style-type: none"> 1. Ensure the results of this review are fed into planning processes: <ul style="list-style-type: none"> - for primary care - for wider health services - whole of government (i.e. all agencies named in this review; e.g. education, corrections, whanau ora etc.) 	
4. A single MH&A indicator, supported by a robust indicator framework	<ol style="list-style-type: none"> 1. Support a process to create a single MH&A indicator that creates awareness and ownership of the system being envisaged for 2020 2. Any indicator development must build on and be integrated with the current KPI initiatives 	

Appendix 2: The Service Workforce Review

The Review Process

This phase 1 MH&A review has been commissioned to inform both HWNZ and the mental health sector on workforce requirements for 2020. This report summarised phase 1 of this work. This review, along with others being undertaken across a number of sectors (aged care, eye health etc) are seen as the start of an iterative workforce investment planning process, providing a platform for progressive development of identified options and solutions.

The terms of reference agreed by the working group outline the following.

The overall goal of this phase of the MH&A review is:

- To identify the future workforce and training needs of the mental health workforce

However in recognition of the complexity of the MH&A service environment the specific objectives of the first phase of this process were more focused on the upstream workforce demand drivers of service configuration, models of care and shifts in roles and functions that may be required.

The objectives of the MH&A review are to:

1. Develop a vision of the mental health service and workforce for 2020
2. Develop a model of care for the mental health workforce that is patient-centred, team based and integrated across the continuum; from self care, primary, community and specialist care settings.

In developing the vision and model the review team was asked to take into consideration:

- A likely doubling of health service demand by 2020 but only a 30-40% increase in funding over the next ten years
- Maintenance of quality in service provision
- A continued need to address inequalities
- No loss of access
- The status quo is only acceptable if there are no superior alternatives.

The detailed aims of the review are to:

- Describe the relevant populations of need and likely changes in their need state to 2020.
- Map the high level functional responses to need, from a person centric, non service defined perspective
- Model today's typical service response as a baseline for workforce and resources
- Explore alternative scenarios for innovation in models of care and service configuration and the likely impact on input requirements, especially effort and expertise

- Explore alternative options of workforce configuration, (including people, consumers as co-producers of their health) that would be required to support preferred scenarios, including types, roles, numbers
- Identify any critical enablers or constraints that impact the delivery of the preferred scenarios; i.e. training, scopes of practice, technology, facilities, resources

It was agreed that the first iteration of any planning model/s were expected to be high level and that additional work may well be required to flesh out high impact scenarios and undertake workforce modelling and investment implications. This would form part of an additional phase of work.

The Working Group

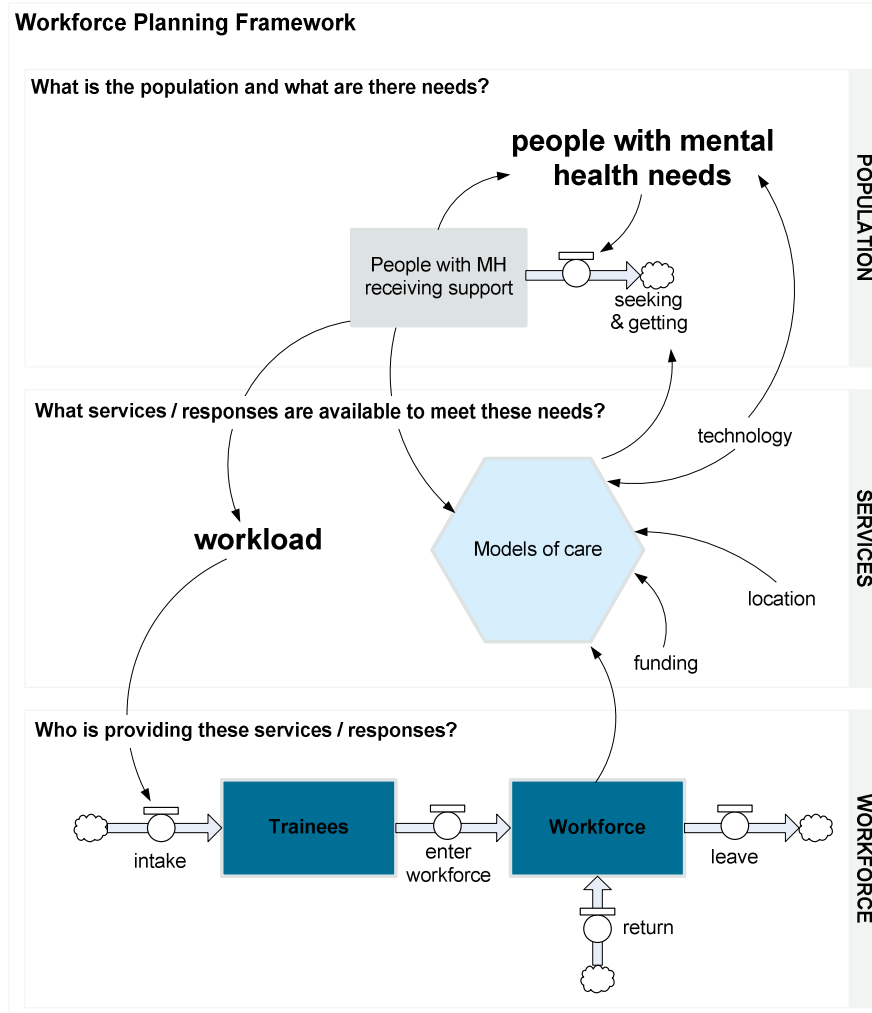
When commissioning this work HWNZ clearly stated the need for clinical involvement and sector leadership within the process. To support this, the project operated with a project working group chaired by Professor Rob Kydd (University of Auckland) with representation across the mental health field. The working group was supported by Marion Clark from HWNZ and Synergia Ltd.

The project working group members were invited to join the group after discussion with the chair and HWNZ representatives. Invitations were extended to people with expertise and knowledge across the mental health sector and were not selected based on organisational representation or title.

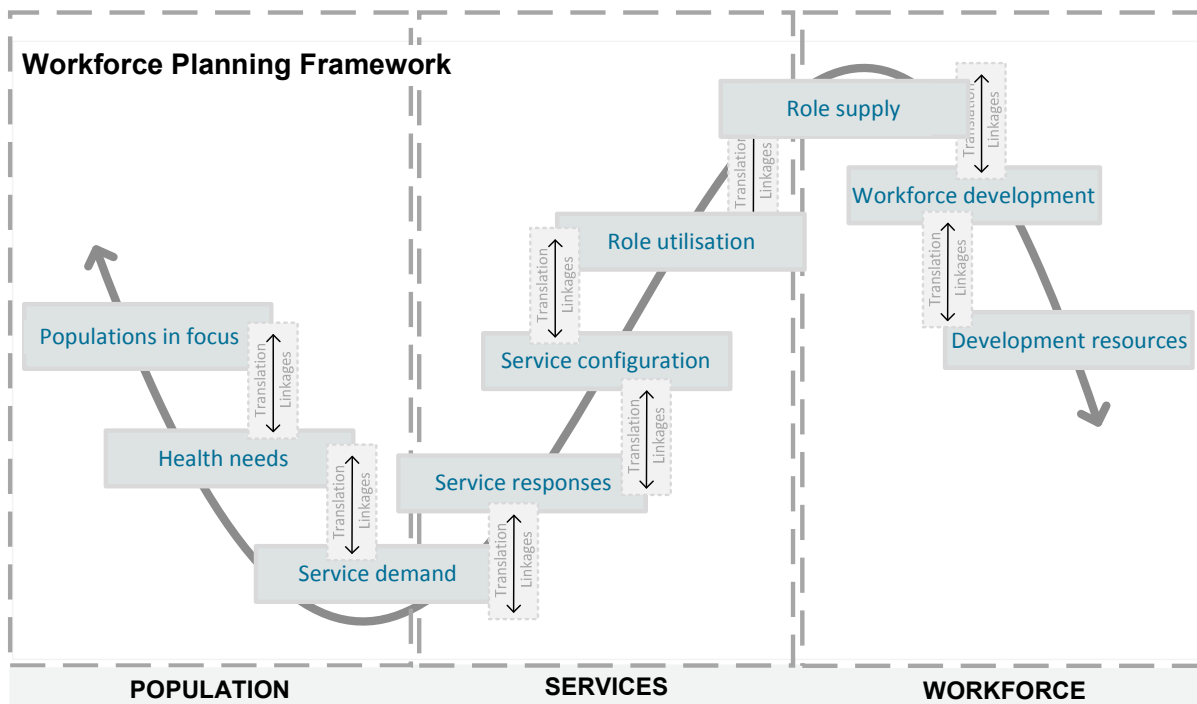
The working group were asked to utilise and link with their networks to ensure the net of knowledge was spread as wide as possible in the timeframe available to undertake this work.

Our Approach

At its highest level the review utilised the following framework as its core approach. This framework explores the linkages between population need, patterns of service provision, workforce and development investments.



It views workforce planning as a connected set of elements and illustrates that in order to undertake informed investigations into workforce requires investigation and analysis across all three areas, as a system. Underpinning these 3 areas are a number of detailed areas of connected analysis. The diagram below shows these as nine domains. At a more detailed level the review utilised this framework to start at multiple points of analysis and continuously refine the thinking within each box, while ensuring the connections to the overall framework were maintained.



Supporting this Approach

A number of techniques were used to support this overall approach:

Consumer journeys or vignettes

The review extensively utilised patient journeys (Gorman 2010) or vignettes to support the discussion, investigation and analysis. After deciding on 8 areas of investigation (consumer journeys) the working group developed 25 vignettes which represented a particular consumer population. These descriptions provided the patient, clinical and system focus needed to test the 2020-vision produced by the group and assess the impacts that the intended model of care changes would have on the system and the workforce.

A standard template was used to capture this information. This template asked for information on a series of system elements such as "*Support and care packages in home & primary/community settings*" and "*use of specialist support & interventions*" and asked the author to describe:

1. Current Model of Care
2. Future model of care (2020)
3. Expected impact of the future model of care (including evidence)

A complete set of vignettes are provided in the supporting document "Towards the next wave: Consumer life course journeys".

Scenarios and modelling

In order to develop a vision for 2020 that is capable of meeting the challenge laid down by HWNZ we have utilised scenarios and modelling. The scenarios are based on the qualitative and quantitative evidence described within the patient journeys and the modelling enables us to begin testing the consequences (intended or unintended) of different courses of action.

Fast cycle

The working project group developed short think pieces throughout the process, often as presentations. These were circulated before meetings and teleconferences, reviewed, updated and re-circulated. This enabled the project to have multiple streams of analysis being undertaken concurrently.

How the Working Group Operated

As with most people in the public sector the members of the working group are busy people. To utilise this precious time wisely, in the right areas, we designed a process that utilised the following elements:

Meetings

- 2 all day face to face meetings. The first at the beginning to launch the process, create focus and plan the project. The second near the end to synthesis the thinking, create tangible action and ensure that the emerging recommendations were in line with the vision for 2020.

Teleconferences

- In between meetings we had four, 2 hour teleconferences. Each teleconference had a clear agenda and was focussed on action steps.

Networking

- Members of the working group actively sort out the views of those in their networks.

Use of web space to continue sharing

- The working group utilised an online web-space to facilitate the sharing of documents, thinking and information.

Timeline

The following timeline was agreed at the initial workshop:

Review plan developed	30th November 2010
Initial working group session	15th December 2010
Teleconferences and working documents. Vignette development, data collection etc	December through February 2011
Second working group session	13th April 2011
Draft report available	5th May 2011
Completion of final report	Late June 2011

Appendix 3: A Vision For 2020

This section outlines the challenges faced by the MH&A system now in the future and proposed a Vision for 2020.

The Challenge for MH&A in Society

The review group views mental health as being in a stage of transition from a somewhat separated branch of health, primarily concerned with a small population with severe disorders, to being an integral contributor to wider health, social, justice and economic goals.

This transition is well described by Professor Mason Durie in an introduction to a research programme into primary mental health (Collings et al. 2010). Professor Durie describes the MH&A system being punctuated by three historical phases:

“The first stage, lasting for more than a century was the establishment of large institutions for the mentally ill.

It was followed in the mid-1970s by a transitional stage of deinstitutionalisation with wholesale discharge and the eventual closure of all mental hospitals.

The third stage, now in progress, has seen the development of community-based mental health services, especially for those whose conditions are highly visible (psychoses, severe disturbances of mood, self harm, and addictions).”

Professor Durie goes on to describe the fourth wave which we are about to enter:

“In contrast the fourth stage may not be about disorders at all but about dysfunctional relationships, maladaptive attitudes and behaviours, exaggerated responses to life crises, emotional and cognitive symptoms associated with poor physical health, and a failure to adapt to changing times and circumstances.”

Looking ahead, the transition to this fourth wave represents a substantial widening focus of mental health and addictions, driven by growing evidence of complex interactions between mental health, physical health and a person’s social context. This is particularly so given the deeper understanding of the broader societal impacts of poor mental health on productivity, crime, and overall functioning. The greater alignment of mental health and addiction policy and interventions is one response to this improved understanding of context.

This fourth wave can be seen in:

- **Policy documents** such as the recent ‘No Health without Mental Health’ strategy from the UK which is explicitly ‘A cross-government mental health outcomes strategy for people of all ages’ (Department of Health 2011a).
- **Underlying philosophies** such as the pervasive ‘recovery’ model which symbolises the move from ‘risk management’ approaches to one of mutual respect and co-production and always working toward recovery (Mental Health Commission 2001).
- **The growth in public health approaches to mental health** and its associated focus on de-stigmatisation, advocacy, community capacity and support,

particularly with the growing understanding of mental health's impact on physical health and broader determinants of health.

From this perspective MH&A is everyone's business. It is part of the life skills and problem solving capabilities of the general population as much as a full spectrum of services provided by a wide range of workers in health, education, social and work organisations. Most of these workers would not necessarily see themselves as being 'mental health' practitioners.

Yet this view contrasts with the established pattern where MH&A has operated within silos, with barriers between mental health and physical health and a disconnection of mental health with rest of health and community.

This means MH&A has been poor in leveraging off each sectors capacity, whether secondary, NGO, primary or the wider community capacity in housing, social services and employment that are central to MH&A from a consumer perspective. As one consumer poignantly stated, what I really need is, "*A job, a home and a date on Saturday night*".

Some of this siloed approach has been created by our own thinking. For example the myth of the 3% has long dominated a health services view about what mental health should seek to achieve. This narrow focus has cut off most of organised and structured mental health services from a broader and more powerful role in both health and in society as a whole.

Silos have been created through funding. Mental health has long seen itself to be the poor cousin relative to physical health services and the creation of ring fenced funding under the original Blueprint for Mental Health Services in New Zealand - How Things Need to Be (Mental Health Commission 1998) has provided the funding security and continuity to build needed capacity.

Yet the ring fenced funding has separated specialist MH&A off from the much wider resources of the system as a whole. Resources including a large proportion of first contact resources in primary care, community pharmacy funding and people's own investment in mental health whether through co-payments, private payment for counselling or use of alternative and complementary medicines. In approaching the review the working group has chosen to take a 'one system / multi-funded' view that encompasses all the resources in the system.

Fragmentation has been generated by our service structures, whether from the organisational divisions of DHBs, NGOs, PHOs and providers or the service boundaries between levels and types of care. Many agencies and services – across government, across health and community are all involved in responding to mental health issues.

Silos have also been created through professional boundaries that have generated and perpetuated boundaries; between specialists and generalists, between drug and alcohol and mental health and between different types of workforce.

The Overall Challenge for 2020

The founding premise behind this review, and the rationale for focussing on a vision for 2020 is the 'challenge' laid down by HWNZ for all reviews. This challenge is that the health sector can expect a doubling of demand by 2020, with only a 30 – 40% increase in available resources. The doubling of demand is supported by modelling work by the NZIER (NZIER 2004) and the cost estimates based on health costs remaining at current levels (9.2% of GDP and 20% of Government spend) and in turn by an optimistic estimate of 3% annual growth of real GDP. (Gorman 2010)

In principle the working group support these assertions and agree with the analysis on which they are based. However, the working group felt it important to articulate the challenge with specific reference to the MH&A sector. The aim of the balance of this section is to describe this challenge.

At an overall population level there is little evidence that the prevalence of mental health need is substantially increasing outside of the effects of changing demographics (population growth, aging, cultural mix) that will change the composition of need. (Levin, Ph, Hennessy, and Petrila 2010) Although there is evidence to support an increasing prevalence of addiction related need over and above changes in demographic factors.

If the level of population need is not predicted to increase substantially by 2020 is there a substantial issue for workforce or resources? Historically the MH&A sector has focussed on reaching a relatively small proportion, i.e. the "3%", of the potential clinically and economically modifiable MH&A need. Over the last decade the sector has seen resources more than double and huge efforts to build capacity, to the point that, by world standards, it is seen as being well resourced. However while we have targeted this resource towards the group with the highest and most complex needs, there is a substantially larger population of un-met need that includes much that is severe and complex in its effects on people, their health, wellbeing and social functioning. Recent initiatives such as the Primary Care Mental Health pilots have shifted this balance somewhat but more is needed.

The rearticulated challenge for MH&A by 2020 is to double access, to a more balanced mix of population need, to achieve a greater impact of MH&A on health and wider employment, social, and justice. As much as possible this must be achieved within the 30 – 40% constrained fiscal envelope. This will require a substantial lift in productivity of resource usage by utilising a whole of system approach to model of care, role utilisation (including people and whānau) and workforce.

With this in mind the outputs from this review are framed by the requirement to do things differently, more of the same won't work. We need to substantially innovate, at a workforce and service level to meet this challenge. While the sum total of what we are recommending may appear radical or ambitious, there is nothing radical in the component parts of the system being proposing. Rather it is the focus, configuration, integration and scale or reach that is different from the status quo.

In reframing the challenge a number of areas stand out:

- **Addressing the needs of Maori:** The 2008 mental health survey showed clearly that, for Maori, relative prevalence of mental health need is high and service access is relatively lower and later in the pathway of development. Combining the best of our emerging understanding of effective mental health

responses for Maori with the development of whānau ora services represents an opportunity to address service access needs and utilise a different workforce mix, including whanau themselves.

- **Child/adolescent mental health:** The evidence is compelling that unaddressed mental health and stress in early years can have profound effect on the subsequent trajectory through life. Equally the evidence is strengthening that interventions in these years are both clinically and economically effective over both short and longer time frames. The steep rise in prevalence of mental health issues in adolescence and early adulthood provides an opportunity for promotion of positive mental health and earlier intervention at lower levels of severity.
- **Addiction:** Addiction isn't just about alcohol and drugs - it includes gambling, pornography, shopping, and overeating. The continuum of substance use problems covers 20% or more of the population - exceeding specialist capacity. Mental health workers are not good at recognising addiction issues and vice versa. Addiction and mental health services have been traditionally separate which raises capacity and capability challenges to have a mental health workforce that is confident and competent to address addiction issues of mental health consumer.
- **Untreated relatively common mental health conditions:** Outside those defined within the 3%, e.g. depression and anxiety, are contributing to high levels of medical service usage and costs. The health outcomes for people with combinations of mental health and long term physical conditions are substantially worse than either mental or physical conditions in isolation.

People are presenting with increasing complexity, mental health issues, physical health issues, addictions, and stress arising from combinations of poor housing, unemployment or living in adverse social environments of crime and violence.

While the circumstances are complex there is increasing evidence that MH&A interventions can be relatively low cost, highly effective ways of unlocking and mobilising peoples own capacity to care for themselves, retain employment, and reduce their usage of health services.

- **Unexplained medical symptoms:** Somatisation of complex stress into medically unexplained symptoms accounts for a substantial proportion of primary care consultations and hospital attendances yet are modifiable with relatively low cost mental health interventions. The recent UK analysis of the economic cost of mental health (Department of Health 2011b) found the health system costs of medically unexplained symptoms to be second only to dementia.
- **Impact of aging:** The population of New Zealand is aging. The prevalence of dementia is predicted to increase considerably. There is a strong need to challenge the separation of MH&A services from geriatric and aged care services and also to create systems that do not have arbitrary or explicit age cut-offs. This includes restricting access to organic degeneration services for the under 65 – access to these supports should be need led not age driven.

Workforce and Service Challenges

The review group believes that the MH&A workforce and services face a number of challenges, to meet the vision for 2020. These challenges are:

Continued shortages of specialist workforce: While demand for specialist skills continues to rise there is a continuing trend of declining supply as interest in training in psychiatry has fallen from over 200 ten years ago to just over 100 places now. Our specialist workforce is aging rapidly and we are dependent on imports to supply our needs. Approximately 25% of doctors practicing as psychiatrists are not vocationally registered with the New Zealand Medical Council. It is likely that planned increases in MH&A funding and services in Australia will add pressure to the outflow of trained NZ doctors. Psychiatry provides the core of our specialist services and even as we continue to diversify our mental health workforce, we will need to find ways to both increase the supply and better utilise and leverage the capacity we have and retain them with attractive environments in which to practice.

Primary care workforce: Our GP and primary nursing workforce have usually had limited mental health training/experience although they are may be competently handling a wide range of MH&A issues. The current model of care and funding model for primary care is centred around brief consults that are generally too short to enable MH&A issues to be effectively assessed and plans of care to be developed. MH&A secondary specialists and primary care workforces need to develop a better common language and 'base' knowledge and skills since the primary care environment has different needs and approach – it is not a 'lite' version of specialist care. The development of the primary mental health initiatives have shown that focused and relevant training can provide substantial lifts in capability and confidence. New roles are developing in primary based mental health clinical support roles; specialist depression nurses, health psychologists we need to enhance and expand these roles.

Consumer and peer workforce: While peer support is developing rapidly as form of non regulated support workforce for specialist mental health consumers there is a wider opportunity to develop consumers, whānau and informal carers as a mental health network support workforce. In part this could be achieved though better attention to the social and living context of consumers; information, education and advice to enable them to support MH&A consumers and protect themselves from the stress that this may bring. In part this could also be achieved through utilising whānau ora and/or care navigator support workers who can focus on utilising the strengths of the consumer and family alongside the professional workforce.

Leveraging skills - We have large projected gaps in some specialist workforce roles (e.g. psychiatry). We must emphasise training and development for these roles but also design models of care that leverage these skills effectively and as widely as possible across health practitioner teams and consumers. Models such as stepped care and use of liaison/consultation models increase the role of the scarce specialist

workforce to apply their expertise to support wider groups of more general MH&A staff.

Utilising non-regulated workforce: The NGO workforce and its capabilities are not well understood or well utilised by the wider sector. Substantial opportunities exist to weave the competencies developed in social services into an effective part of MH&A responses that can provide complements or alternatives more formal care, for example social work or employment support. There are limited means to develop and recognise competency of the non-regulated workforce which will need development if roles such as community mental health worker or care navigator are extended to providing support for brief problem solving interventions such as has been utilised in the UK.

Substitution: Addressing these workforce gaps may require explicit processes of workforce substitution, using roles and functions that require briefer training periods as has been used in the UK and increased use of supervised service delivery models.

Refocusing: Refocusing of some specialist workforce roles may be required to support maintenance of people in primary / community settings and within the consumer journeys outlined earlier. This will mean specialist staff providing significant support within primary care and community settings. This will require these staff to have reduced 'active' case loads and to be supporting and supervising groups of primary/community care workers to support people without the need for formal entry into specialist services. The skills and competences required to support this way of working will need to be enhanced and developed. Training in higher level secondary specialities will require emphasis on supervision of workers in different settings.

Training and retention: Training in MH&A is split between a range of universities, development organisations and providers based on centres of excellence and areas of subspecialisation. This provides advantages of specialisation that will continue to have value but may also pose challenges for the future in developing a workforce that is capable of the more integrated approach advocated here. Additional issues identified by the working group include:

- Lack of time for experienced personnel to train new staff
- The time it takes to train people (e.g. 15 years for Psychiatry)
- Current training positions in key professions (e.g. clinical psychology) are restricted in number
- Reduction in training budgets (e.g. within DHBs)
- Training positions are usually available in main centres (while need is often in regions)
- Training institutions e.g. universities strapped for cash
- Student loans (barrier to training for mental health professionals)
- Some of our best psychologists are 'lost' to private practice - and not just because of pay rates
- Retention issues - defensive practice, bureaucratic demands, decreased ongoing training

- Mental health workforce is passionate and want to help - how do we harness and focus on right things
- Lack of Asia/Pacific workforce
- Need to grow more clinical/cultural expertise in workforce

Undergraduate and postgraduate training: Mental health and addiction training needs to be increased within general health training – undergraduate and post graduate so that mental health issues complicating physical disorders are increasingly identified and addressed.

Skills and new workforce for MH&A pathways: The common consumer pathways described in this report provide a basis for scope of future MH&A services. There are new or expanded workforce roles and skills requirements for many of these pathways. New skill clusters, such as Navigators, may be required as part of teams to create linkages where multiple strands of support require coordination in a community context (aligns with some of the whanau ora models). It is acknowledged that some people with high and complex needs will remain largely within MH&A services, added to by a group currently treated within Forensic services. This may require additional/refocused training for staff dealing with this group.

Developing a culturally matched and competent workforce: Substantial progress has been made in development of a Maori workforce and some progress on a Pacific workforce, more needed. Increasingly this will be needed to have a similar process for Chinese and Asian populations.

More proactive workforce planning: While the original Blueprint laid out targets for workforce mix and level that have guided the past decades efforts on workforce development we are now in a substantially different environment. Emerging opportunities to develop our models of care, use new roles and exploit the opportunities of technology mean we need to a more proactive and flexible approach to workforce planning at national, regional and district levels.

The MH&A sector is relatively rich in surveys and data on its workforce level and mix but this needs to be better tied into our forward looking modelling about what work we need the workforce to be doing and how roles and functions are expected to evolve. Only through this combination will we be able to see the implications of longer term trends in training, recruitment and retention on workforce gaps.

Our education and development organisations need to be actively part of this process to help develop their foresight on long lead time development programmes and help build in the flexibility that the pathway towards the 2020 vision will require.

Vision for 2020 – A Set of Principles

To meet these challenges and embrace the fourth wave the review group are proposing a vision for 2020.

The review group realised that to create the direction required what was needed was a vision for 2020 built on a set of principles that needed to be present by 2020 if we are to have any chance of meeting the challenges set out above.

Therefore the vision for MH&A in 2020, consists of 9 principles.

In 2020 the MH&A system will be:

- 1. Self help focussed:** People, families and whanau have the capacity and capability to help themselves. Services should support a trajectory towards maximising resiliency, recovery and self help.
- 2. Supporting people, families and whanau as experts:** Co-production of least intensive, most effective support is a role everyone should play.
- 3. Life course, developmental and risk trajectory aware:** Centred on promotion, investment in prevention, early intervention and an understanding of the life-course consequences of not acting.
- 4. Systematically addressing the drivers of inequalities in mental health and addictions outcomes:** MH&A services must continue and strengthen their focus on reducing persistent inequalities in mental health burden and outcomes. Maori and Pacific MH&A prevalence rates remain high requiring continued systematic efforts to develop the pathways, workforce and care environments that are more effective for service users and their whānau. Sub populations of children and adults with severe mental health needs experience high levels of morbidity and drastically shortened life expectancy. People with co-existing physical and mental health and addiction conditions have worse outcomes than either in isolation yet frequently often do not receive the balance of care they need.
- 5. Supporting most people with mental health and addiction issues in primary and community settings:** Numerically the large majority of MH&A issues are of mild to moderate severity. Better integration between primary and secondary care will enable better recovery pathways for people with severe mental disorders and increased access to specialised services for a wider range of people with other mental health problems/disorders.
- 6. Encouraging a ‘no health without mental health’ approach across services:** MH&A is everyone’s business and represents a huge opportunity for MH&A to both make a difference and also leverage off the resources of the wider systems of health, social services, education, employment and justice.
- 7. An effective user of evidence and learning:** The MH&A sector should apply the evidence it has today on what works (and thus needs to be integrated into routine practice); what is promising practice (e.g. complementary cultural practices); and what does not work (and thus needs to be dropped from routine practice), within and alongside a viable responsive system of support.
- 8. Operating as ‘one system, multi funded’:** MH&A should leverage all the resources available to it, not just within the ring fence, not just health, not just

directly public funded but through co-production and through support of the substantial private and voluntary sector contributions.

9. **Working smarter with resources:** MH&A has the potential to be an effective 'unlocker' of productivity benefits across the entire health system and contribute to wider social and employment outcomes – we have the resources we need to apply them in more effective and efficient ways.

These principles provide the rationale to why various thoughts, analysis and recommendations form the basis of this report.

Appendix 4: A Whole of Life Course Approach

To make sense of the richness and complexity of MH&A services the review chose to use a whole of life course approach that would encompass typical user journeys; from peri-natal through infant, child, youth, adult to elderly.

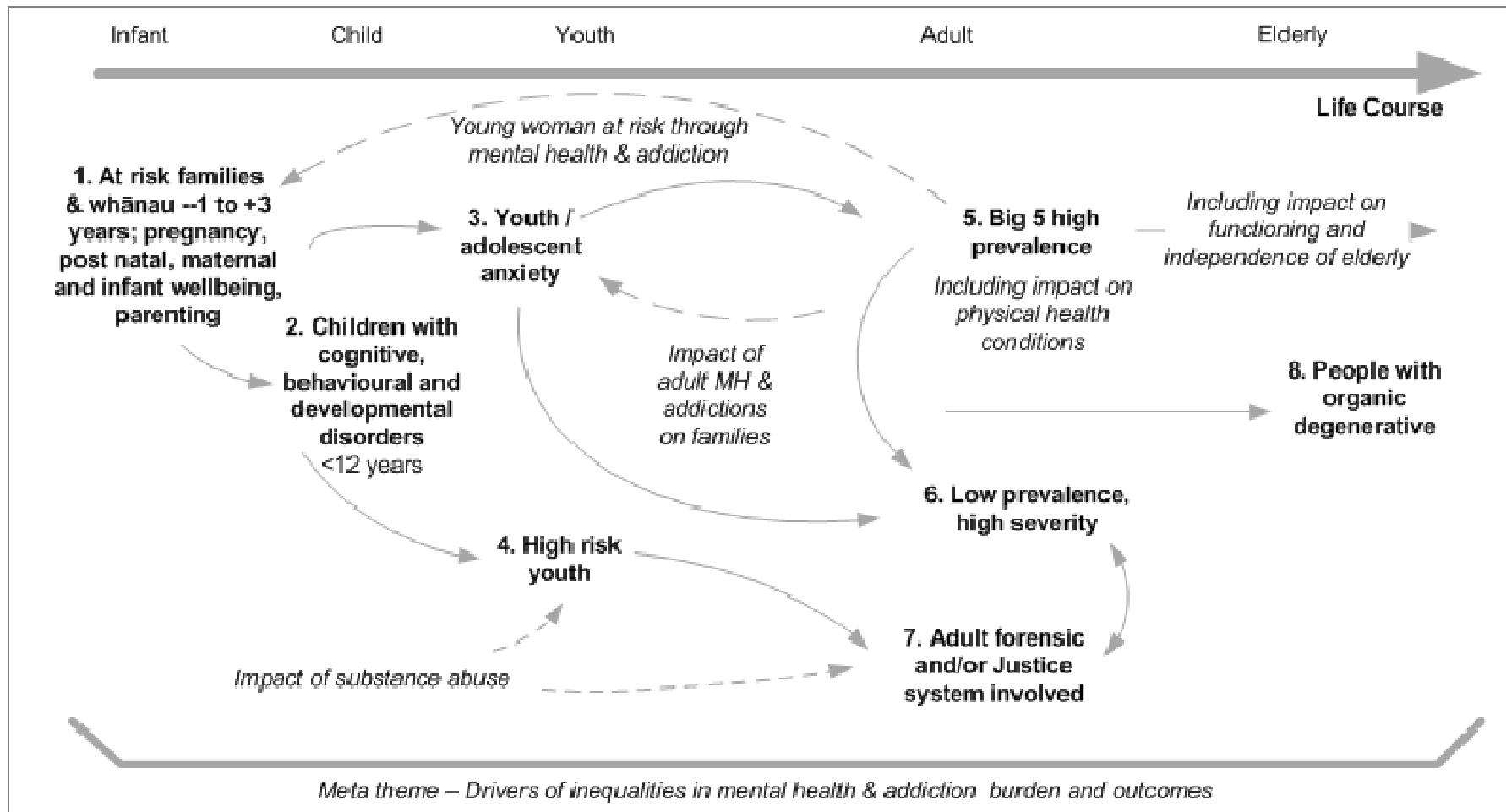
This approach seeks to:

- Take a user centric, non service defined approach that provides the freedom to explore alternative service configurations.
- Enable the interdependencies and developmental pathways that mark the progression of mental health and wellbeing to be explored, (e.g what role could earlier intervention across the life course play in reducing downstream service demand).
- Reduce the complexity of MH&A many and highly detailed service configurations to a manageable level that would allow meaningful exploration of alternative models of care.
- Capture the bulk of clinically relevant service demand, i.e. the demand that drives workforce requirements.

The review group has used eight consumer journeys as shown in the diagram on the following page.

MH&A System as a Connected Set of Consumer Journeys Across the Life Course

Figure 7: Whole of life course consumer journeys



Eight Proposed Consumer Journeys Across the Life Course

Our working definition of each of the eight consumer journeys pathways shown above includes:

- 1. At risk families and whānau - 1 to +3 years; pregnancy, post natal, maternal and infant wellbeing, parenting.** This pathway recognises the critical role of the peri-natal and infant years in developing a platform for subsequent success in life. The stream is mother, child and parenting focused, building on emerging evidence of successful interventions.
- 2. Children with cognitive, behavioural and developmental disorders:** This pathway focuses on pre-school to pre-pubescent (<12years) children and their families with developmental related mental health needs. It builds on stream 1 but with a strong focus on parenting support and early interventions for behavioural disorders, (including ADHD, oppositional defiance, conduct), that are showing substantial benefits for child educational participation and reduction in risk of subsequent mental health, addiction and criminality.
- 3. Youth/adolescent anxiety and depressive disorders:** This pathway recognises the extremely rapid rise in prevalence of mixed anxiety/depression in youth with a higher risk of subsequent adult mental health needs.
- 4. High risk youth:** This pathway describes the low prevalence/high severity mental health, alcohol and behavioural disorder related service demand, including self harm and conduct disorder. Substantial evidence exists for adverse flows from journeys 1, 2 and 3 above ending up in this pathway generating life long risks of poor mental health, substance abuse and criminality.
- 5. Adult 'big 5 high prevalence':** The cluster of overlapping situations characterised by anxiety, depression, drug and alcohol abuse, complex psycho/social stress and medically unexplained symptoms. The people within this pathway frequently have co-occurring medical conditions with high usage of health services, many/most have not accessed effective interventions, and they are at risk of loss of employment as adults or loss of independence if elderly. This pathway provides relatively low cost MH&A responses in primary/community settings that can have substantial effect as early interventions in developing MH&A issues, leveraging the effect of specialist MH&A care and general medical services, reducing hospitalisations and need for benefits.
- 6. Adult low prevalence, high severity:** This journey encompasses multiple pathways for adults with severe MH&A conditions including those for early

intervention, episodic acute needs, uncomplicated or complicated recovery as well as the small proportion with severe and enduring care needs. Opportunities exist to gain benefits from better integration with primary care, support for self-management, medical and mental health interventions, educative options, and support for employment, with resultant decreased benefit usage and decreased adverse flows into journey 7.

- 7. Adult forensic and/or Justice system involved:** The pathway is generated by the overlapping nature of some high severity MH&A and criminal behaviour. While some aspects of this pathway are likely to remain resource intensive substantial opportunities exist to gain society wide benefits from better medical and mental health interventions with this population; reduce reoffending, reduce benefit usage and increase employment.
- 8. People with organic degenerative needs:** While this pathway is dominated by more elderly oriented 'psycho-geriatric' demand (mainly dementia) it recognises that organic disorders also affect a wider age range (e.g. acquired brain injury). Opportunities to use MH&A interventions to slow decline and enhance compensation for changing functionality will form a critical part of future economic sustainability.

A critical aspect of these journeys is that they are not discrete, for example more effective earlier action in 'upstream' journeys could potentially reduce the level and intensity mix of demand arising within subsequent journeys.

Likewise AOD issues can be seen across many of the journeys as both independent sub pathways where risk, abuse or addiction are the main or sole cause of concern and as co-occurring issues with complex and interacting issues and sub-pathways.

Similarly persistent inequalities in health burden and outcomes, particularly for Māori, require us to consider an overarching 'meta-theme' of where disparities are arising and how the approach across and within journeys can be designed to improve the performance of the MH&A system as a whole.

Summary of Consumer Journey Themes

1 At Risk Families and Whanau

Primary target the very young within families where MH&A issues are generating very poor outcomes for infants during early years of emotional and cognitive development. Preventative focus as well as treatment. Strong links to a range of established and emerging community/primary services (Well Child, Family Start etc). Includes parenting for those already diagnosed with MH, includes foetal alcohol syndrome. Likely to include alcohol, substance abuse, violence and neglect in young families, boundaries with Care & Protection system and agencies to be explored. Does not assume that health “does all”, i.e. works with and supports others.

- Early recognition and integrated perinatal, well child family & community based MH response to lower end (non acute) maternal mental health. *Impact – earlier recognition of issues, better outcomes*
- Increased access to self help resources, peer, community and NGO support. *Reduce variation in access to support for rural and low decile*
- Increase access to brief interventions (MH & AOD plus educational & social)
- “One family, one plan, one case worker, one health record.” Integrated assessment and coordinated responses. Navigator roles. Pooled funding across services and agencies. *Fewer gaps in care, targeted response less waste, efficient use of resources. Improved productivity of staff*
- System of care approach, family engaged multi-disciplinary pathways, reduced number of steps in service access pathway. Integration of violence, trauma, protection interventions. Reduces drop out rate. Better outcomes. *More efficient service delivery at intensive end. Reduced intensive emergency response requirements*

2 Children With Cognitive, Behavioural and Development Needs

Generally pre-school to pre-pubescent (<12years) children with developmental related mental health needs. Likely to be part of an education oriented community based service response, including nurses and counsellors in schools, links to primary services etc. Boundaries with Education sector to be explored.

- Assertive engagement maintenance and completion of Tamariki Ora, Well Child, Family Start, B4 School checks with assessment of risks and assertive referral/completion of more specialised care needs.
- Clear referral agreements and care pathways. Reduction in cost barriers to care.
- Systemic and family based integration of developmental, behavioural and mental health approaches – across schools, GSE, CAMHS and community based support.
- Increased access to parenting skills development (e.g. ‘Incredible Years’) supported with encouragement from services

- School based mental health professional provides links between child, family, primary care and other services as appropriate

3 Youth/Adolescent Anxiety and Depressive Disorders

This stream recognises the relative high prevalence stream of anxiety or mixed anxiety/depression related service demand in youth/adolescents. Many of this group currently miss out of services, under achieve at school and have a higher risk of subsequent adult mental health needs.

- Schools are seen as a primary health access point with a 'school GP' or 'school youth clinic'. Nurses in all schools with mental health training. Student sees counsellor and is then referred to school GP for assessment and treatment. Fewer youth at risk of poor outcomes from unrecognised MH
- Increased capacity of non-health professionals to identify mental health needs and confidence in supporting self care, problem solving interventions
- Treatment includes range of positive health psychology , self help plus brief interventions. Practice nurse meets patient and phones them once per week. Patient likes fact that someone who knows them is calling them. Reduces depression by 19% more than twice as effective as antidepressants
- MH & AOD staff would be co-located in primary care and available by phone when not co-located. Reduces in-patient and outpatient referrals

4 High Risk Youth

A low prevalence/high severity mental health, alcohol and behavioural disorder related service demand, including self harm, conduct disorder. Includes youth forensic services. Possible Justice system involvement, boundaries to be explored as per adults below.

5 The Adult High Prevalence 'Big 5' MH&A Conditions

The cluster of overlapping situations characterised by anxiety, depression, drug & alcohol, complex psycho/social stress or medically unexplained symptoms that are amenable to tiered responses in primary/community settings. Assumed to include similar care for mental health needs of older adults outside of organic degenerative below. Characterised by high prevalence with large service demand and evidence to practice gap. Substantial effect on employment, (note increasing recognition of MH&A and employment issues as cost to state). Boundaries with related care needs for people with long term physical conditions to be explored (e.g. self care support, health psychologists).

- Health promotion encourages self recognition, access to self management tools, community based social support together with early & appropriate help seeking. Uses low cost support (web), reduces demand at primary care, enables earlier lower intensity responses

- Increased proactive action by employers & social welfare on emerging MH issues before job loss amplifies stress. Reduces demand /complexity on health services
- Routine risk screening A+D & depression/anxiety in primary combined with streaming to range of accessible service intensities (self, therapy, ultra-brief, group, nurse specialist, primary based therapy, psycho social support). Reduces demand for more complex interventions.
- Step up options available in primary for more complex situations who do not respond to above; primary based nurse specialists, co-located psychiatric assessments, phone consults, extended packages of care. Better utilisation of limited SMH resources. Improved outcomes
- Specialist care via CMHC, A+D, acute care operates as short duration under shared care & 'navigation' integration from primary practice. Reduces costs per episode of specialist care.

6 Low Prevalence High Severity

This journey encompasses adults with MH&A conditions categorised as being severe but who at any given time will be living across a spectrum of severity in terms of symptoms and functioning. This cluster is currently the predominant focus of specialist MH&A services but in the future vision is supported by a more differentiated whole of system response including early intervention, pathways for uncomplicated or complicated recovery and pathways for those with enduring/persistent care needs.

- Earlier (early childhood / adolescence) recognition and identification of emerging clusters of issues. Risk trajectory identification used to tune service response. Slows development/severity of condition. Reduces late, reactive and intensive responses.
- Family / Whānau self care, education, psychological and cultural support starts early and home settings. Increases resiliency and engagement/adherence. Reduces more intensive response requirements, focuses support on what is needed.
- Integrated and coordinated service responses, (multi-axial treatment and education), reduces ad hoc, piecemeal, reactive interventions. Fewer gaps reduces acute incident frequency & intensity. Better integrated responses increases effectiveness of care, less waste.
- Shared care including self care, whānau support, primary - built into MHS service. Increased resiliency and fast access when needed. Reduces frequency/severity of acute response requirements.
- Cost barriers to accessing community level support addressed. Reduces need to access MHS as gatekeeper, reduces length of episode of specialist support & hence cost

7 Forensic and/or Justice System Involved

The stream of demand generated by overlapping high severity MH&A and criminal behaviour. Substantial workforce and capability in prison system but note changing trends towards more home based sentences with expectations of community based support services available. Boundaries with Justice system to be explored. (MHC report "Health & Justice").

8 Organic Degenerative

Cluster of degenerative disorders that affect a wide age range (e.g. Stroke, head injury Huntington) and more elderly oriented 'psycho-geriatric' service demand including dementia, MH related frailty. Boundaries with the HWNZ sponsored review of care for elderly will need to be explored as part of phase 2.

- Health promotion and health literacy development patients, GPs & specialists, take advantage of preventative measures; *delay onset, retain functioning for longer*
- Earlier detection of cognitive decline; integrated, systematic screening & needs assessment
- Coordinated primary led care, common pathways across multiple specialties; *retain functioning, delay entry to residential care, prevention of secondary complications and hospital admissions*
 - Primary lead behavioural and compensatory management,
 - Self care support and monitoring of capability, carer education, advanced planning and directives
 - Comorbidities management (including alcohol)
 - Likely growth of 'antidementia' therapies
- Support for remaining at home; in home care, carer support, respite care; *reduce acute admissions, slow entry to residential care*
- Planned entry to residential care, avoiding crisis driven placement; *reduce use of more intensive residential care services*
- Enhanced recovery and rehabilitation support post acute events; *restore functioning, slow entry to more intensive residential care, reduce re-admissions*

For more details on the consumer journeys please see the companion report, "Towards the Next Wave – Consumer Journeys".

Appendix 5: Quantifying the Challenge

The working group has undertaken some preliminary modelling of the eight consumer journeys to paint in numbers our view of the challenge and possible responses that would be required to realise the 2020 vision.

Modelling Approach

We have taken a macro level approach to modelling that projects the population structure and known or assumed prevalence of need within each journey over the next 20 years and explores the possible impact of refocusing resources across the life course. It attempts to paint the picture of how a whole of life course approach could work.

While the consumer journeys are central to gaining a whole of system view of MH&A responses they present a challenge in that they take a slightly different view of the world than that represented by our current service structures and silos. Obtaining data for the modelling effort has been a challenge, especially within the resources and time frames of the working group process.

Each journey could be the subject of an intensive modelling effort in its own right that would have high utility in understanding the impact of alternative models of care and work force roles, types and functions. The modelling undertaken here seeks to portray a view of what the entirety of MH&A could look like if the 2020 vision were to be realised.

1. For each journey we have estimated a relevant population and used estimates of growth to project changes through to 2030, (a longer time horizon was chosen in order to enable the effects of longer term changes or consequences of the proposed shifts to be examined).
2. We have not assumed that the journeys are completely discrete, for example Journey 1 'At risk families' includes mothers who may also participate in other journeys.
3. Estimates of 'need' have been applied to the population in each journey, using sources such as Te Rau Hinengaro or estimates from the literature that have been adopted or modified by the Working Group to reflect their judgement of magnitude of need. For the purpose of this modelling 'need' is assumed to be 12 month prevalence's of MH&A distress that could benefit from some form of organised MH&A response (including self care).
4. Need rates are assumed to be constant across the projection period, i.e. the overall mental health and addictions profile of the population is not assumed to be getting better or worse. The mix does change, e.g. with changing demographics although in this modelling we have only modelled the impact of population growth and aging, not changes in need due to ethnicity and gender mix changes.
5. Where there are clear interdependencies between journeys that are well supported, e.g. the impact of early intervention in families on subsequent

development of MH&A issues, we have modelled the effects on downstream journeys as a separate scenario.

6. Estimates of need recognition have been applied to each journey to reflect the proportion of need that we could expect to be able to respond to. Recognition rates change across time to reflect the expectations implied by the 2020 vision.
7. Access to services ('organised MH&A responses') is modelled using seven levels or layers of response. While MH&A responses could be categorised in many ways we have chosen a relatively simple structure that can be used across all journeys and have some utility in estimating the impact on the future workforce. We have attempted to represent some of the thinking used within Stepped Care, i.e. that we are modelling additive layers of care rather than discrete alternatives. People are likely to be accessing more than one layer of service. The seven modelled 'care layers' are:
 - a. **Primary care** – Assumed to be the full spectrum of primary health with the nature of what is provided flexing appropriately across journeys, e.g. Lead Maternity Carers are included in the vision for Journey 1 'At risk families'. At this level we aim to capture the MH&A responses that are provided by 'business as usual' primary care. Services inside this layer include more formalised recognition, (e.g. assessment), care planning, advice, self care support, brief problem solving interventions etc.
 - b. **Social care** – With similar assumptions as above. This is used to represent, at least in some part, that the MH&A response is intertwined with social responses and some initiatives such as Whanau Ora, or utilising return to work as an intervention with MH&A health benefits, will increase this linkage. In its current state of development this layer of the model has not been used but in the future would enable a wider and whole of government view of MH&A resources for example including those from CYF, ACC or Justice.
 - c. **Self care** - A full spectrum including targeted health promotion/prevention, e-therapies, brief problem solving interventions to support self care, more structured whanau and informal career support through to various levels of peer support for those with more complex needs.
 - d. **Organised primary MH&A packages of care** – Covering both GP team care, and "packages of care", (e.g. brief interventions, talking therapies etc), accessed and delivered through primary providers, the brief interventions delivered under the Primary Mental Health Initiatives are one example.
 - e. **Community based MH&A support** – A step up in intensity associated with greater use of NGO MH&A team based case management and community support. The nature of the specific response will alter substantially by journey across the life course.
 - f. **Specialist MH&A support** –In the future model of care specialist MH&A clinicians will undertake both specialist roles, and advisory and support roles within the shared care or integrated care environment

proposed. It is anticipated that most specialist MH&A clinicians will be in roles which include a “generalist” element located in a primary care of community-based MH&A support setting, and a specialist element located within specialist services - Specialist clinics, CAT teams etc.

- g. Hospital inpatient and acute services support** - These will remain an essential element of the future service mix. In our modelling approach we have drawn on the experience of areas that have invested heavily in integrated specialist and community based services that show that continued modest reductions in in-patient beds are feasible with effective community support.

For each journey estimates of access have been made. For the years to 2010 the access levels have been calibrated to actual data of service usage where possible, for example in-patient beds or the activity level in specialist community care. For each journey and service layer, changes to access have been made to represent the development of a substantially different model of care envisaged in the 2020 vision.

These are time phased to represent a ramp up towards the vision but this does not yet represent any real analysis on the change or capacity development challenges which were outside the scope of the working group terms of reference.

- 8.** Costs per user access over 12 months have been estimated for each service layer within each journey. For example a forensic unit in-patient bed (Journey 7) is substantially more expensive and has a longer duration than a non forensic adult acute bed (Journey 6). We have focused on workforce related costs rather than attempted to estimated full service costs but since workforce costs dominate most services this is not considered to be a substantial issue.

The model uses a combination of Excel spreadsheets, to manipulate the extensive arrays of information that is required, and Systems dynamics modelling software (iThink) to undertake the array manipulation over the time periods modelled.

Representing Inequalities

To take account of inequalities and differing needs levels across ethnic groups the model makes adjustments for need across each patient journey and ethnic group. The 4 ethnic groups are (1) European, (2) Maori, (3) Asian, and (4) Pacific. These ethnic groups are used because Statistics NZ supplies population data on these 4 groups

The need figures are calculated using a weighted average formula which adjusts for the size of the difference in relation to the size of the population across which the differences exist. Adjustments to need can be made for each ethnic group and customer journey. The example adjustment factors are shown below. Note that the base year used is 2010 and the percentages are calculated from an

amalgamation of a range of sources and the expert judgement of the working group.

Each adjustment relates the base of that customer journey. i.e. +33% for Maori in journey 2 is 33% of 10% to give an adjusted need figure of 13.3% for the Maori population in customer journey 2.

Table 1: Modelled estimates of need prevalence by ethnicity

	Base Need	European	Maori	Asian	Pacific
1 At risk families	20.0%	0%	+33%	0%	+20%
2. Child cognitive, behavioural, developmental	10.0%	0%	+33%	0%	+20%
3. Youth/adolescent	29.0%	0%	+33%	0%	+20%
4. High risk youth	10.0%	0%	+33%	0%	+20%
5. Adult 'big 5'	20.7%	0%	+33%	0%	+20%
6. Adult high severity	4.7%	0%	+33%	0%	+20%
7. Adult forensic	1.6%	0%	+0%*	0%	+0%
8. Elderly organic degenerative	10.0%	0%	+0%*	0%	+0%

The adjustment figures were derived from the following evidence:

- Te Rau Hinengaro showed the 12 month prevalence of any mental disorder was highest in Māori (29.5%), followed by Pacific people (24.4%) and Others (19.3%; 18.0, 20.6).
- A similar pattern was seen for serious disorder and most individual disorders or disorder groups.
- Both Māori and Pacific people had a higher prevalence of bipolar disorder than Others. Pacific people had the lowest prevalence of major depressive disorder.
- Te Rau Hinengaro showed that Māori had higher overall rates of disorder and higher rates of serious disorders than Pacific people and non-Māori non-Pacific people.
- Te Rau Hinengaro showed that Pacific people experience mental disorders at higher levels than the general population. Twenty-five percent of Pacific people had experienced a mental disorder in the past 12 months and 46.5% had experienced a disorder at some stage during their lifetime.
- (Simpson, Brinded, Fairley, Laidlaw, et al. 2003) found that there is no difference in prison population need across Maori, Pacific and Other ethnicities, however see the note below.

*While level of need within prison does not seem to differ by ethnicity Māori are substantially over represented in the Adult forensic population. From a

model perspective we have represented this as a difference in “recognition/access” rather than need. The net effect is that ethnicity differences are represented in the number of Māori who enter the Adult Forensic journey within the model although their need, once in forensic care, is assumed to be similar to others.

Modelling – The Base Case

To explore the impact of the existing models of care within each of the eight journeys the model was first run as a base case.

In the base case scenario the following key assumptions prevail:

- Need levels are only impacted by the underlying population dynamics, i.e. it assumes that the incidence of mental health distress is unchanging
- Access rates remain as per the modelled estimates of 2010
- Recently recognition rates have been increasing in certain areas such as adult and child. This is due to factors such as awareness and increased acceptance. We have set a relative increase of 25% in recognition between 2010 and 2020 to represent the base case increase we would expect over this period
- The prevailing model of care remains static, i.e. we are not projecting past patterns of model of care changes into the future
- Resources are at 2010 effort and dollars, there is no effect of productivity or inflation

The following graph shows the total modelled changes in need, access and resourcing levels between 2010 and 2030. The initial base figure is set to 100 for year 2010.

Figure 8: Base case - Relative change in Need, Access and Resources (2010 =100)

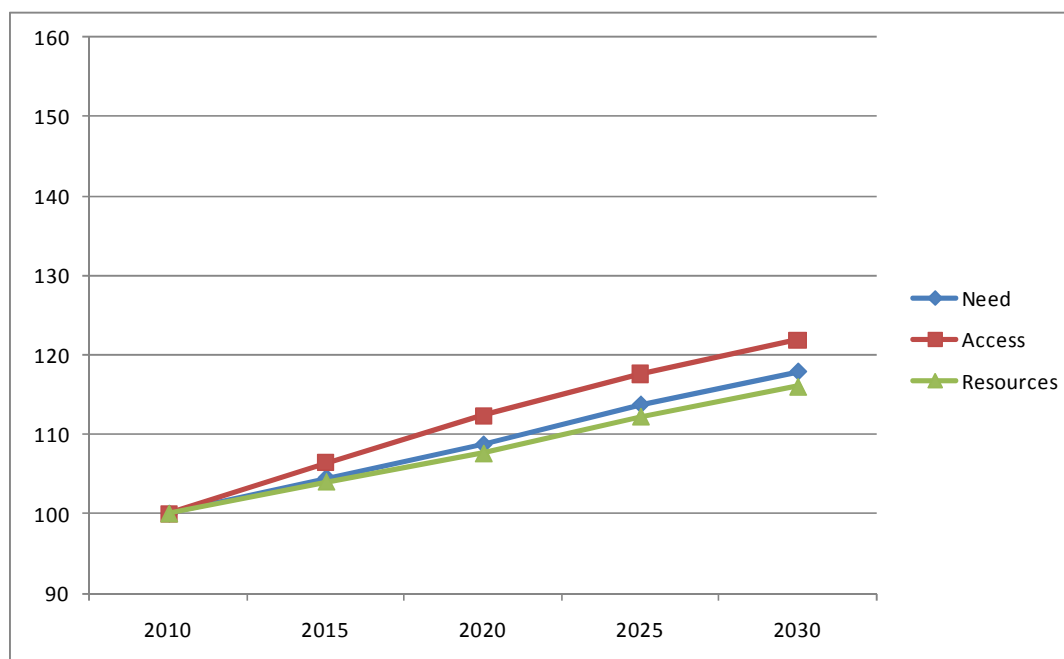


Table 2: Base case - Relative change in Need, Access and Resources (2010 =100)

	2010	2015	2020	2025	2030
Need	100	105	109	114	120
Access	100	107	113	119	125
Resources	100	106	111	116	123

Key points:

- The base case shows that need is increasing by 9% between 2010 and 2020. This increase is mainly driven by an increase in the population size and changes in ethnic mix. Over the same period access is increasing 13%, which is above the rate of need growth. This is driven by factors including the positive impacts that long running MH&A public health campaigns are having on the awareness of MH&A and also professional awareness of these issues
- Resources are shown to grow by 8% over the same period, slightly less than the rate of increase in access as alternative packages of care (i.e. primary based) are provided.

The following graph shows the modelled activity changes across the eight journeys.

Figure 9: Base case- relative changes in activity by consumer journey (2010 =100)

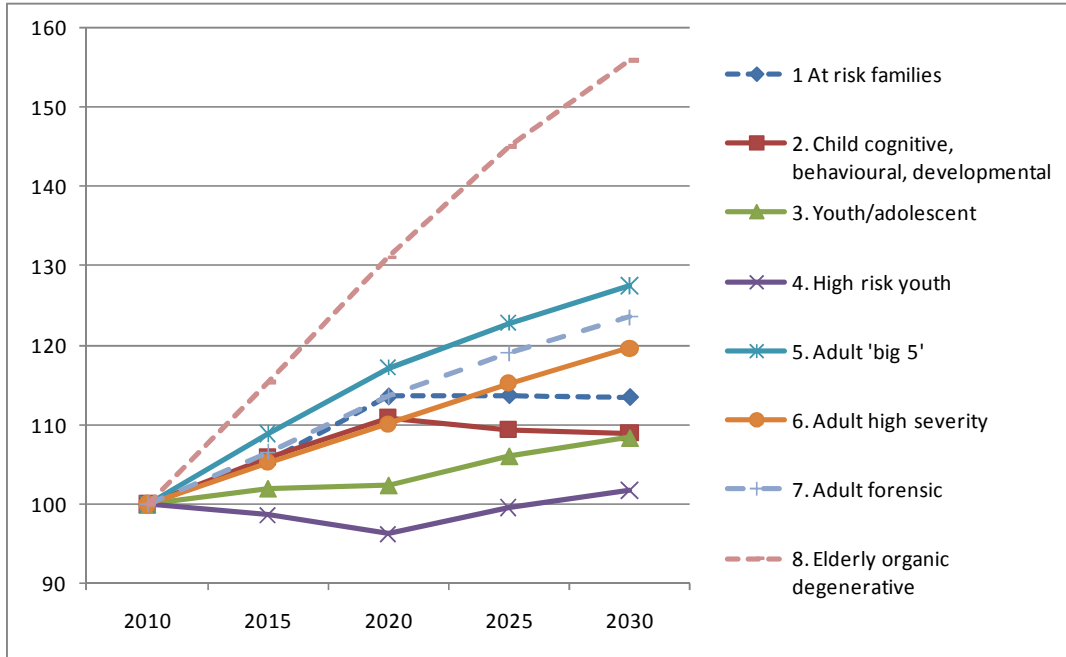


Table 3: Base case- relative changes in activity by consumer journey (2010 =100)

	2010	2015	2020	2025	2030
1 At risk families	100	109	116	116	116
2. Child cognitive, behavioural, developmental	100	105	111	110	109
3. Youth/adolescent	100	104	103	105	109
4. High risk youth	100	100	97	99	103
5. Adult 'big 5'	100	109	118	123	130
6. Adult high severity	100	106	111	116	122
7. Adult forensic	100	107	114	119	125
8. Elderly organic degenerative	100	115	132	147	161

Key points:

- Activity levels for elderly organic degenerative increase by 32% from 2010 to 2020 (absolute number of 6,001)
- Activity levels for adult 'big 5' increase by 18% from 2010 to 2020 (absolute number of 28,259)
- Activity levels for journey 2 and 3 (child/youth) increase only slightly by an average of 7% from 2010 to 2020 (absolute number of 1,980)

Using the estimates of activity for each journey, modelled across the levels of response described earlier the base case model can be used to show the

expected changes in response mix that will be driven by demographic changes only:

Figure 10: Base case- relative changes in activity by service level (2010 =100)

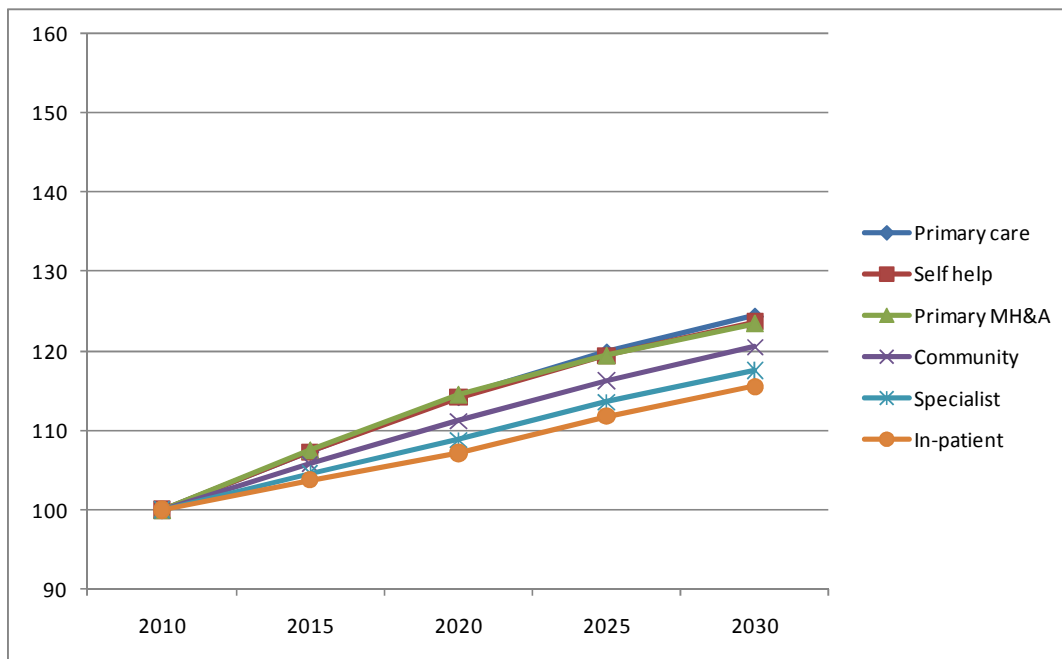


Table 4: Base case- relative changes in activity by service level (2010 =100)

	2010	2015	2020	2025	2030
Primary care	100	108	115	120	126
Self help	100	108	115	120	126
Primary MH&A	100	108	115	120	125
Community	100	106	112	117	123
Specialist	100	106	111	117	123
In-patient	100	107	113	119	127

Key points:

- Primary care, self help and primary MH&A levels increase by 15% from 2010 to 2020
- Community, specialist and in-patient increase an average of 12% from 2010 to 2020

Figure 11: Base case- modelled changes in resource usage by consumer journey (\$m)

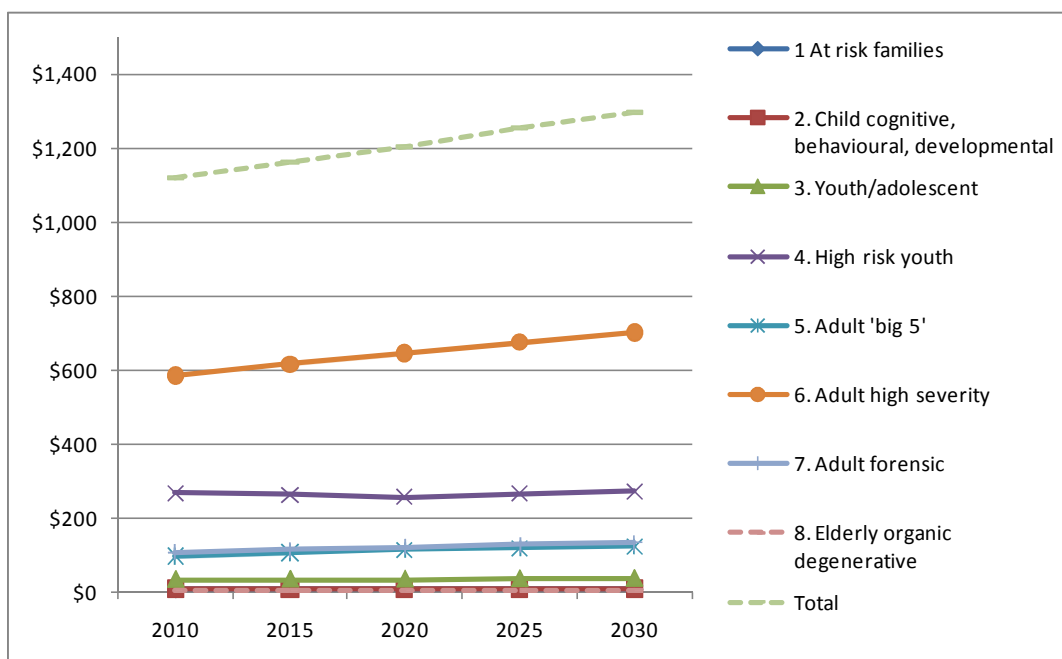


Table 5: Base case- modelled changes in resource activity by consumer journey (\$m)

	2010	2015	2020	2025	2030
1. At risk families	\$9	\$9	\$10	\$10	\$10
2. Child cognitive, behavioural, developmental	\$10	\$11	\$11	\$11	\$11
3. Youth/adolescent	\$38	\$39	\$39	\$40	\$41
4. High risk youth	\$156	\$156	\$150	\$153	\$160
5. Adult 'big 5'	\$102	\$111	\$119	\$125	\$132
6. Adult high severity	\$606	\$640	\$670	\$702	\$739
7. Adult forensic	\$107	\$114	\$122	\$128	\$134
8. Elderly organic degenerative	\$90	\$104	\$119	\$132	\$145
Total	\$1,117	\$1,183	\$1,241	\$1,301	\$1,372

Key points:

- Total resources utilised increases from \$1,120 (million) in 2010 to \$1,240 (million) in 2020 a 11% increase
- The largest absolute increase is in adult high severity services which increases from \$606(million) in 2010 to \$670 (million) in 2020 an increase of \$70 (million) or 12%
- High risk youth decreases by \$6 (million), as consequence of demographic shifts

Figure 12: Base case- modelled changes in resource usage by service level (\$m)

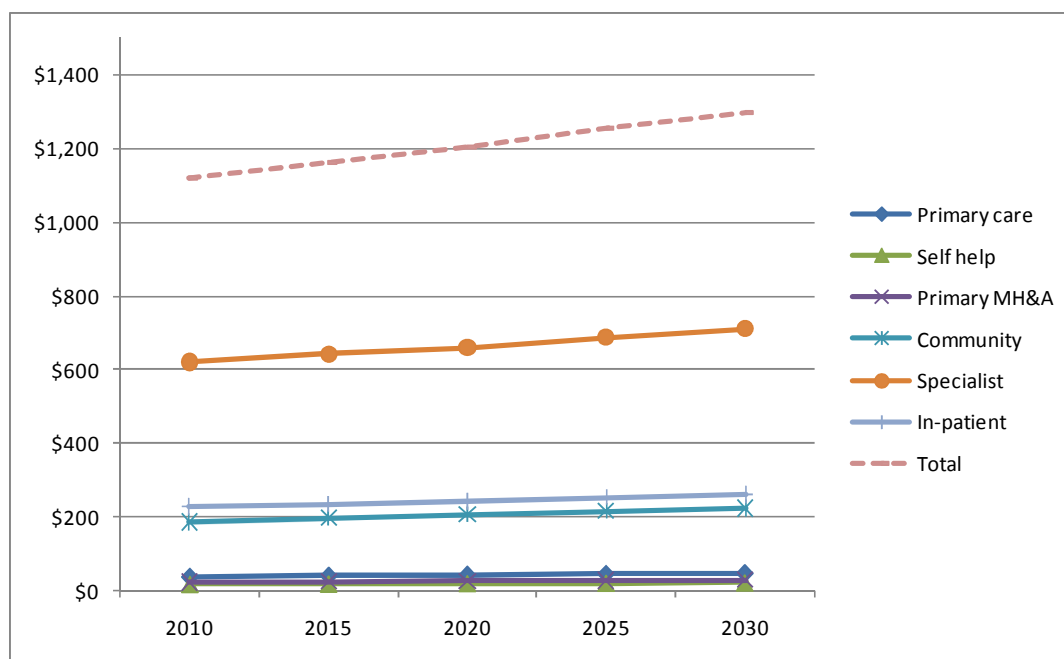


Table 6: Base case - modelled changes in resource usage by service level (\$m)

	2010	2015	2020	2025	2030
Primary care	\$40	\$43	\$46	\$48	\$51
Self help	\$19	\$20	\$21	\$22	\$23
Primary MH&A	\$25	\$27	\$29	\$30	\$32
Community	\$194	\$205	\$215	\$225	\$237
Specialist	\$557	\$590	\$617	\$647	\$682
In-patient	\$281	\$298	\$312	\$328	\$348
Total	\$1,117	\$1,183	\$1,241	\$1,301	\$1,372

Key points:

- The largest absolute increase is in specialist services which increases from \$560 (million) in 2010 to \$620 (million) in 2020 an increase of \$60 (million) or 11%
- Primary care, self help, primary MH&A have slight increases of \$5, \$2 and \$3 million respectively

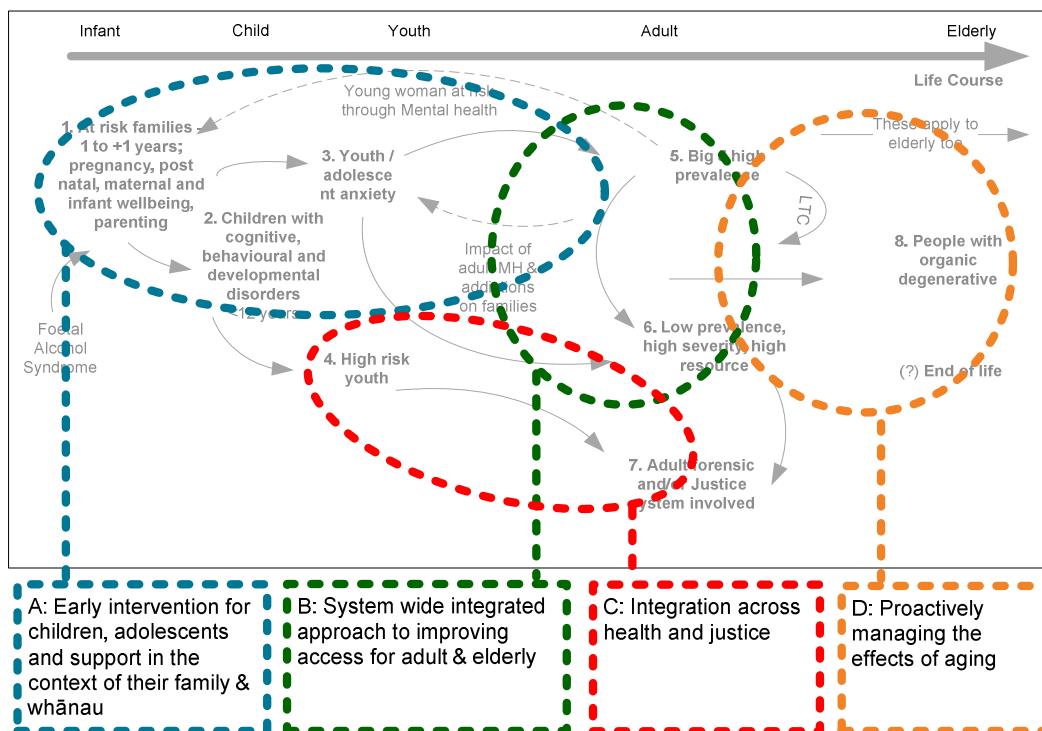
Scenario 1: Modelling the 2020 Vision

The consumer journey scenarios described in the companion report (Towards the Next Wave – Consumer life course journeys) describe the detailed changes to the clinical models of care and workforce proposed for each journey. Across the eight journeys there are effectively four macro themes that have been incorporated into the model:

- Intervening earlier in the life course development of MH&A, from perinatal through to adolescents to reduce both short term effects and longer term flow on to adult MH&A need, (journeys 1, 2, 3 and 4)
- A system wide integration of adult MH&A services, (e.g. within a 'stepped care' approach) to improve access at a lower overall cost per care, (journeys 5 and 6)
- Influencing the pathways through high risk mental health and justice to reduce system wide costs (journeys 4 and 7)
- Proactively influencing the effects of aging, (a mix of journeys 5 and 8)

A representation of these themes is shown in the diagram on the following page.

Figure 13: Modelled scenario themes



Theme A: Early Intervention for Children, Adolescents and Support in the Context of Their Family and Whanau

Modelling theme

- Peri-natal and infant period provides the developmental environment for life-long social and emotional competencies or sets the stage for a life time risk of mental ill health. Key risk factors, chiefly in maternal wellbeing, are observable from pregnancy from within existing service touch points and can be readily influenced by programmes with good evidence of impact and cost effectiveness
- Children exposed to chronic stress in home and family environments have a high risk of developing mental health and behavioural problems that can persist through childhood and adolescence. A high proportion of these

children are known to CYF but are currently unable to access mental health support

- Child behavioural disorders are the consequence of multiple and cumulative factors and generate long lasting effects on educational achievement, employment, mental health, substance abuse, crime etc. There is building evidence for clinically and economically effective prevention/treatment. Within NZ there are promising service developments but most are small scale
- Adolescence/youth is a period of steep rise in prevalence of mental disorders with half the life-time prevalence of mental health issues identifiable by 14years of age. Access to treatment is low with a high probability of recurrence leading to progressive development of a range of adult mental disorders. Intervention in youth has both short term benefits and preventative effect on adult life course
- Child and youth account for 28% of the population but only receive 11% of MH funding support. Much of this investment (and CYF resources) is tied up in expensive crisis, intensive services or protection.
- Interventions have a demonstrated economic benefit over many timescales yet in a 'no more money environment' we need mechanisms to redeploy existing resources (the 'fiscal case')
- Our current responses are handicapped by limited scale and lack of integration, (especially failure to address the interdependent needs of both parents (or primary care giver) and children that cross health, education and social sectors). Poor integration generates inefficiencies in how existing resources are used
- There are distinct workforce and capability needs for effective services in this area with shortages in critical areas – e.g. Child psychologists and therapists. There will be need to both increase capacity and develop and scale innovative ways of providing services that are less resource intensive

Modelling assumptions

- Resources can be refocused from adult MH to preventative upstream care and, over reasonable time periods, have positive feedback effects to reduce adult MH need/intensity
- Relatively low intensity, earlier, integrated, preventative and treatment interventions have demonstrable impact on existing cross sector resource usage (health, social sector, education, crime)
- Limited specialist resources can be leveraged to increase access through support for families & community workforces. Technology supported therapy for youth

Theme B: System Wide Integrated Approach to Improving Access to Adults and Elderly

Modelling theme

- Majority of current resources focussed on supporting the 3%
- Data from detailed case level analysis (e.g. KPP or TAG)⁹ indicates that of the approximately 16,000 high needs people who have been in specialist services for more than two years perhaps 40 - 50% of these are stable, represent very low risk and could be supported in lower intensity shared care arrangements across primary and community layers of care (with specialist advisory support). Note that this group is already receiving relatively low intensity care in specialist/community settings so the proportion of resource applied to the 40-50% is likely to be modest relative to the resource intensity of the other 50% who represent more acute, high risk or unstable phases.
- The large majority of people accessing specialist outpatient MH&A services have relatively short durations of care. Evidence from integrated MH&A care systems¹⁰ show that a large proportion of this demand can be effectively addressed in augmented primary care settings, by provision of specialist liaison/consult advisory assistance in primary care and by opening up pathways to community support directly from primary care without the need for an outpatient event. The combination of these strategies could effectively reduce the demand on specialist outpatient care.
- An integrated approach would allow a shift in focus for a proportion of our current specialist service people and resource towards achieving the greater access for the next cohort of high needs people in a primary health setting, i.e. supporting an integrated stepped care approach. While the resources freed from care in specialist settings maybe modest relative to the overall specialist budget, with the low care intensity and high levels of effectiveness of brief primary based packages of care it would enable a dramatic lift in access.
- Increasing the capability of 'business as usual' primary health to recognise, provide advice, care planning and brief problem solving interventions would further lift effective access.
- Increasing usage of a full spectrum of self care support can further increase access to effective responses that can range from ultra low cost (e.g. e-Therapies – although these may still need clinical support time to achieve best effect) to moderately low cost e.g. peer and group support.

⁹ Knowing the People Planning provides a detailed individual level analysis of the situation and needs. The estimate above is a generalisation to the national population based on the results of district level analysis undertaken to date (Welsh, 2010).

¹⁰ (Kates, McPherson-Doe, and George 2011): Integrating mental health services within primary care settings: the Hamilton Family Health Team.

Assumptions

- In journey 6 there is a continued shift towards community based care and integrated primary, community and specialist supported care
- In journey 5 there is greater access to primary based packages of care
- Similarly investment in training, capability development and support for MH&A support within the general care interactions of primary health
- Increased use of a full spectrum of self care

Theme C: Integration Across Health and Justice

Modelling theme

- Data indicates that the prevalence of MH&A need across those who come in contact with the forensic and justice sectors is higher than those who do not
- There is a requirement to increase the access to primary health and primary packages of care for people with needs in this area
- Also to enable High and complex needs MH&A people currently in Forensics to be moved to MH&A allowing Forensics to take people from Prisons and treat effectively
- There is a requirement to reduce the increased 'criminalisation' of MH&A issues which is being pushed through current policy settings. This is driving strong fragmentation effects which are happening between MH, AoD, addition sectors and justice and corrections. MH&A issues should be predominately viewed as a health issue that requires support and treatment.

Modelling Assumptions

- Increased integration and alignment will lead to more co-ordinated support for people with MH&A needs who come in contact with corrections/justice sector
- More co-ordinated support across the corrections/justice interface, and particularly in and out of prison settings will improve the treatment retention of this need group
- Forensic services are able to step patients down into non-forensic specialist services once forensic needs are met

Theme D: Proactively Managing the Effects of Aging

Modelling theme

- The over 55 population is growing at an increasing rate

- Age related need across organic (i.e. dementia) and non-organic (i.e. depression, anxiety) is increasing in line with the increases in population
- Aging is driving increasing co-morbid need. The rhetoric is that the physical issues are treated first, before mental health.
- Currently there are age limits and restrictions on some services (i.e. 65 yr cut off for some primary care depression programmes)
- Due to factors such as physical issues having a masking effect, the sector is often late in identifying or responding to the MH&A need in this aging
- The links with the aged care sector are strong. There are opportunities to utilise the resources, workforce and knowledge of the aged care sector to increase the range of MH&A responses available to this group
- Evidence indicates that dementia care is predicted to be one off, if not the, single biggest resource usage area in health sector by 2025 (UK – No health without Mental Health report)
- Evidence also indicates that approximately 40% of elderly acute bed usage relates to depression. This is the single biggest bed usage areas, more than all major physical issues
- To cope with these pressures this theme focuses on the need to:
 - Identify the MH&A need which is evident across this group earlier in the life course. Particularly need in the areas of depression and anxiety.
 - Identify dementia need early and support the maintenance of functioning for as long as possible. This requires less intensive supports but for longer
 - Leverage the aged care sector to act as a key set of eyes outside of core MH&A services.

Modelling Assumptions

- In journey 5 there is greater access to primary based packages of care for those aged 55 and above
- There is no age limit cut off for Journey 5
- Investment in training, capability development and support for MH&A support for those over 55 yrs within the general care interactions of primary health. Emphasise the importance of support for MH&A need alongside the physical issues related to aging
- Leverage and more closely integrate with aged care sector to jointly provide support for people with MH&A need – particularly dementia
- Providing appropriate support early will reduce acute bed demand – particularly for those with depression
- Increased use of a full spectrum of self care

Scenario 1: Rebalancing the Focus and Service Mix – Modelling Results

Applying the four themes to the model shows the following results for overall need, service access and resources needed:

Figure 14: Scenario 1 Relative change in Need, Access and Resources (2010 =100)

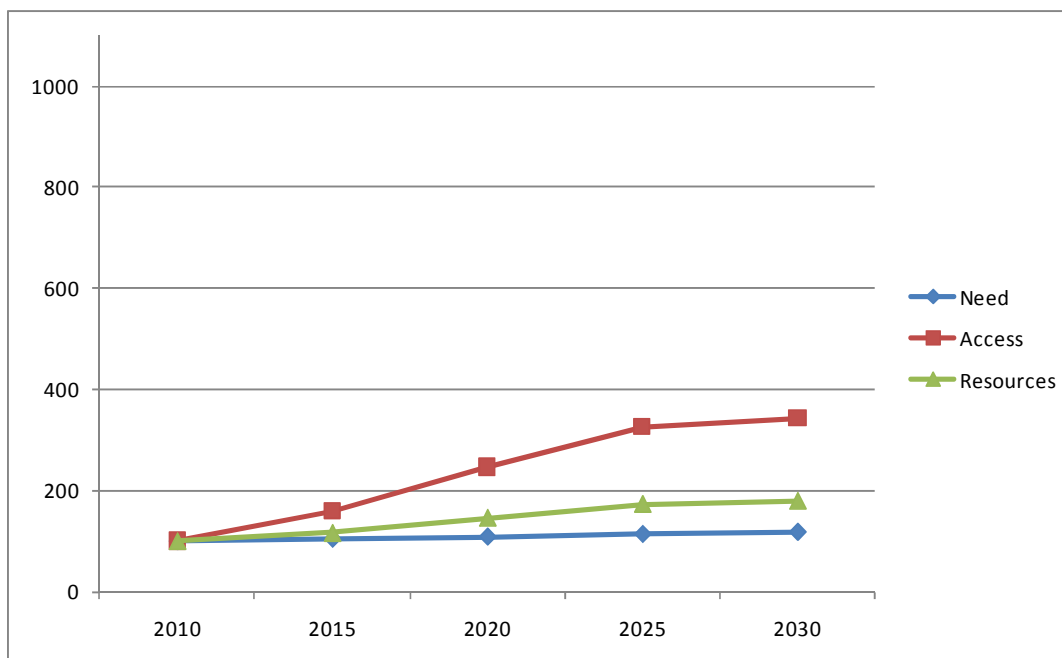


Table 7: Scenario 1 - Relative change in Need, Access and Resources (2010 =100)

	2010	2015	2020	2025	2030
Need	100	105	109	114	120
Access	100	161	250	331	353
Resources	100	117	149	177	187

Key points:

- As in the base case overall need is growing modestly, slightly above the population
- The access index shows the number of people accessing some form of organised MH&A response growing almost 2.5 times by 2020
- However through the use of low intensity service configurations and changing resource mix total resources are only growing by 46% by 2020 (from approximately \$1.1 billion to \$1.6 billion). The extra \$50 - \$100m above the working group's target of 30-40% growth is assumed to be resources that are able to be gained in collaboration with wider government initiatives (e.g. return to work, facilitated by targeted application of initiatives in Journey 5 Adult High Prevalence).

The service mix changes substantially under this scenario as shown in the graph below:

Figure 15: Scenario 1 - Relative change in activity by consumer journey (2010 = 100)

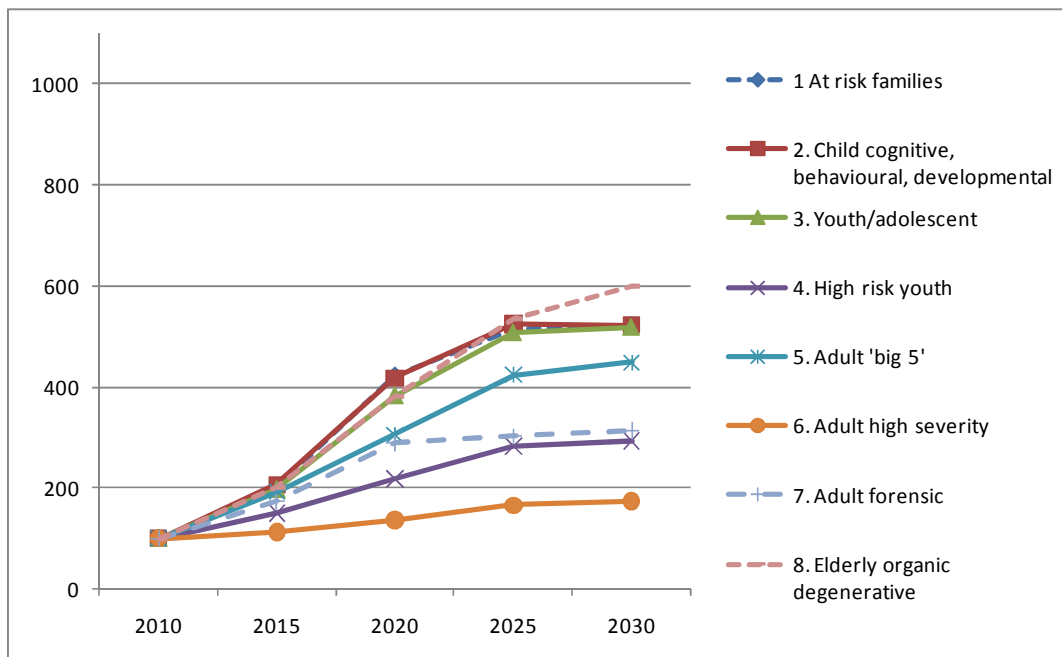


Table 8: Scenario 1 - Relative changes in activity by consumer journey (2010 =100)

	2010	2015	2020	2025	2030
1 At risk families	100	207	433	525	533
2. Child cognitive, behavioural, developmental	100	206	418	529	525
3. Youth/adolescent	100	200	383	502	522
4. High risk youth	100	176	278	374	395
5. Adult 'big 5'	100	193	307	425	457
6. Adult high severity	100	113	137	167	178
7. Adult forensic	100	173	290	303	319
8. Elderly organic degenerative	100	183	334	460	528

Key points:

- While overall access is modelled to grow 2.5 times by 2020 current access rates are dominated by Journey 6 Adult high severity. In this scenario access rates increase by an index of 250 over base 2010 of 100, this is in excess of the base case index of 111 by 2020 due to higher levels of utilisation of primary and community based responses.
- The 'early years cluster' Journey 1 At risk families, Journey 2 Child behavioural, cognitive and developmental and Journey 3 Youth/Adolescent Depressive/Anxiety – are planned to grow substantially, albeit from

relatively small base levels in 2010. This is achieved primarily through substantially enhanced capacity of existing primary health services and the tripling access to primary health based packages of care for maternal MH&A.

- Journey 8 Elderly Organic Degenerative – The 2020 vision for elderly seeks is represented by two main strategies. Within Journey 5 Adult High Prevalence, (described below) we are aiming to increase access for depression for elderly as part of the overall adult population (i.e. remove age related access barriers). More specifically the Journey 8 changes and access increases recognises the benefits of MH&A response for those in the early development of cognitive degeneration, enabling longer maintenance of functioning by improving ability to compensate. (This is aligned with the major recommendations of to the Aged Care Service Workforce Review).
- Journey 5 Adult high prevalence – through the establishment of an effective layered or stepped care capability.
- Journey 7 Adult Forensic – through the extension of MH&A services into the relatively small prison population rather than through any expected growth in the forensic mental health access.

Using estimated resource costs as a crude surrogate for workforce capacity requirements the graph below shows the changes in modelled resource usage by consumer journey:

Figure 16: Scenario 1 - Relative change in activity by service level (2010 = 100)

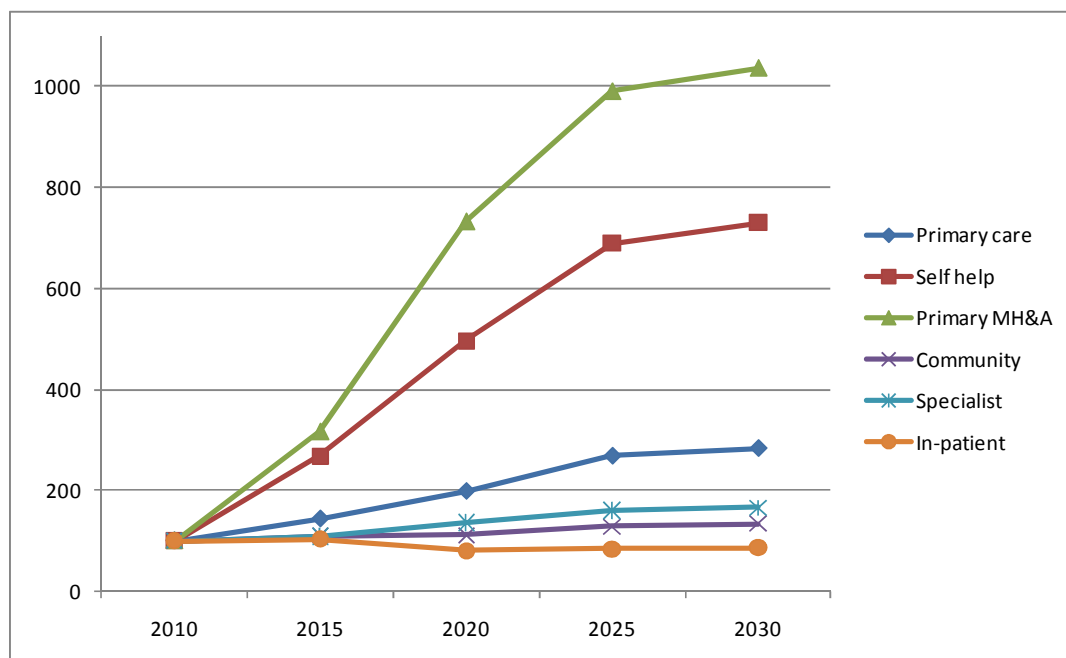


Table 9: Scenario 1 - Relative changes in activity by service level (2010 = 100)

	2010	2015	2020	2025	2030
Primary care	100	144	199	269	289
Self help	100	270	499	691	742
Primary MH&A	100	316	733	991	1051
Community	100	111	112	129	137
Specialist	100	110	139	165	174
In-patient	100	106	92	97	104

Key points:

- In terms of the levels of service that have been modelled the largest relative increases in activity, and capacity development, will be in the development of primary based packages of care and services in the broad self care spectrum, (approximately an 7 and 5 fold increase respectively).
- Primary health capacity to effectively respond to MH&A issues within general health interactions will need to approximately double.
- Specialist activity will need to increase by 40% with a strong shift towards supporting the early intervention and supporting primary health.
- Community based activity will grow by 12% although there is likely to be an overlap with the 8 fold increase in primary health packages of care, many of which will need to use refocused community based resources if this is to be achieved.
- The modelling suggests that inpatient hospital activity should be expected to decline by 8% before starting to rise again post 2020 due to population growth. While this may seem ambitious larger reductions, in real terms, have been achieved by DHBs such as Counties Manukau through proactive use of community based support¹¹.

¹¹ Source: Counties Manukau DHB Funding and Planning

Figure 17: Scenario 1 - modelled changes in resource usage by consumer journey (\$m)

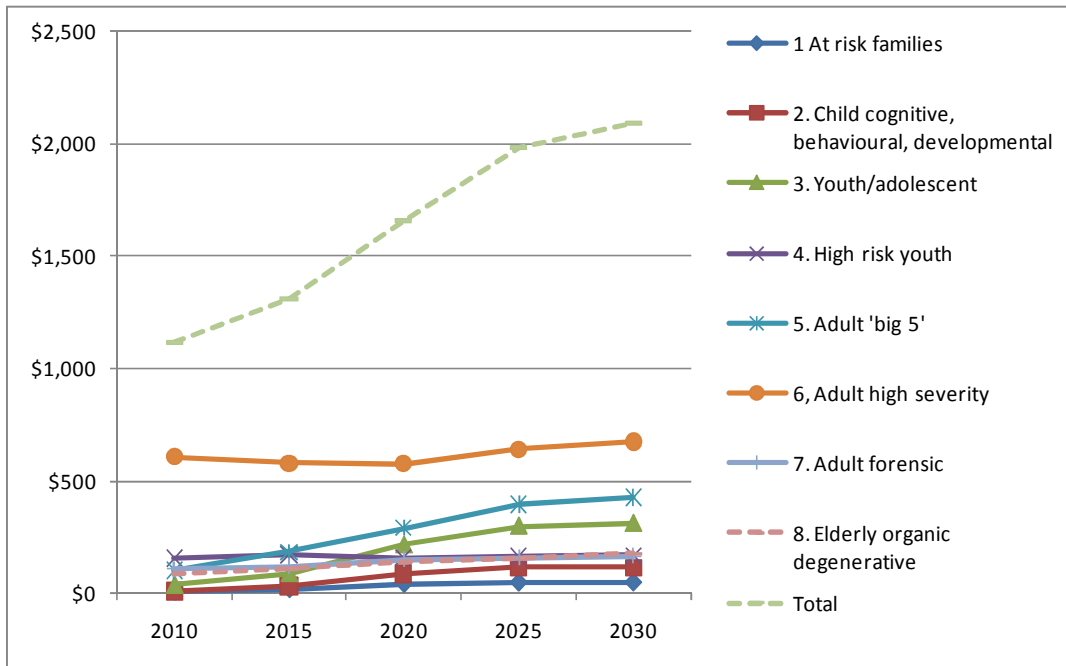


Table 10: Scenario 1 - modelled changes in resource usage by consumer journey (\$m)

	2010	2015	2020	2025	2030
1 At risk families	\$9	\$20	\$43	\$48	\$48
2. Child cognitive, behavioural, developmental	\$10	\$33	\$86	\$116	\$115
3. Youth/adolescent	\$38	\$90	\$216	\$298	\$310
4. High risk youth	\$156	\$170	\$157	\$163	\$170
5. Adult 'big 5'	\$102	\$185	\$291	\$396	\$426
6. Adult high severity	\$606	\$580	\$578	\$640	\$675
7. Adult forensic	\$107	\$120	\$152	\$159	\$167
8. Elderly organic degenerative	\$90	\$110	\$137	\$159	\$176
Total	\$1,117	\$1,308	\$1,659	\$1,980	\$2,087

Key points:

- ¹²Total resources utilised increases from \$1,120m in 2010 to \$1,700m in 2020 a 38% increase, (base case 2020 \$1,250m)
- The largest absolute increase is in Journey 5 Adult high severity which increases from \$102m in 2010 to \$290m in 2020 an increase of \$190m
- This is followed by Journey 3 Youth/Adolescent which increases from \$38m in 2010 to \$216m in 2020 an increase of \$178m

¹² Source: Counties Manukau DHB Funding and Planning

Figure 18: Scenario 1 - modelled changes in resource usage by service level (\$m)

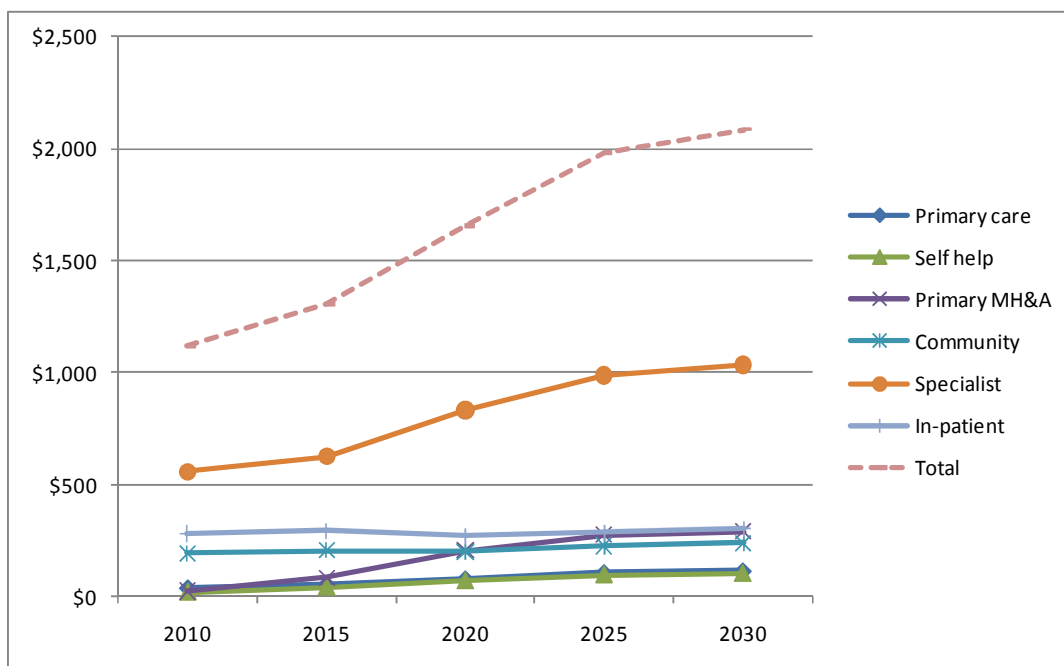


Table 11: Scenario 1 - modelled changes in resource usage by service level (\$m)

	2010	2015	2020	2025	2030
Primary care	\$40	\$58	\$80	\$108	\$117
Self help	\$19	\$41	\$69	\$96	\$102
Primary MH&A	\$25	\$85	\$206	\$276	\$292
Community	\$194	\$206	\$200	\$226	\$239
Specialist	\$557	\$624	\$832	\$987	\$1,033
In-patient	\$281	\$293	\$271	\$286	\$303
Total	\$1,117	\$1,308	\$1,659	\$1,980	\$2,087

Key points:

- Total resources utilised increases from \$1,117 (million) in 2010 to \$1,659 (million) in 2020 a 48% increase.
- The largest absolute increase is in specialist services which increases from \$557 (million) in 2010 to \$832 (million) in 2020 an increase of \$275 (million) or 50%.
- In patient resources decrease by \$10(million) up to 2020, but due to the impacts of population growth and aging resource usage begins increasing in subsequent years.

Scenario 2: Potential Impact on Down-Stream Demand

In this scenario we have attempted to represent the possible consequential impact of the substantial shifts in service access described above, on 'down-stream' demand. For example, by intervening early amongst the adolescent population we can expect, after a natural delay due to aging, to have an impact on the level of demand for adult services. (Gluckman 2011).

Figure 19: Scenario 2 - Relative change in Need, Access and Resources (2010 =100)

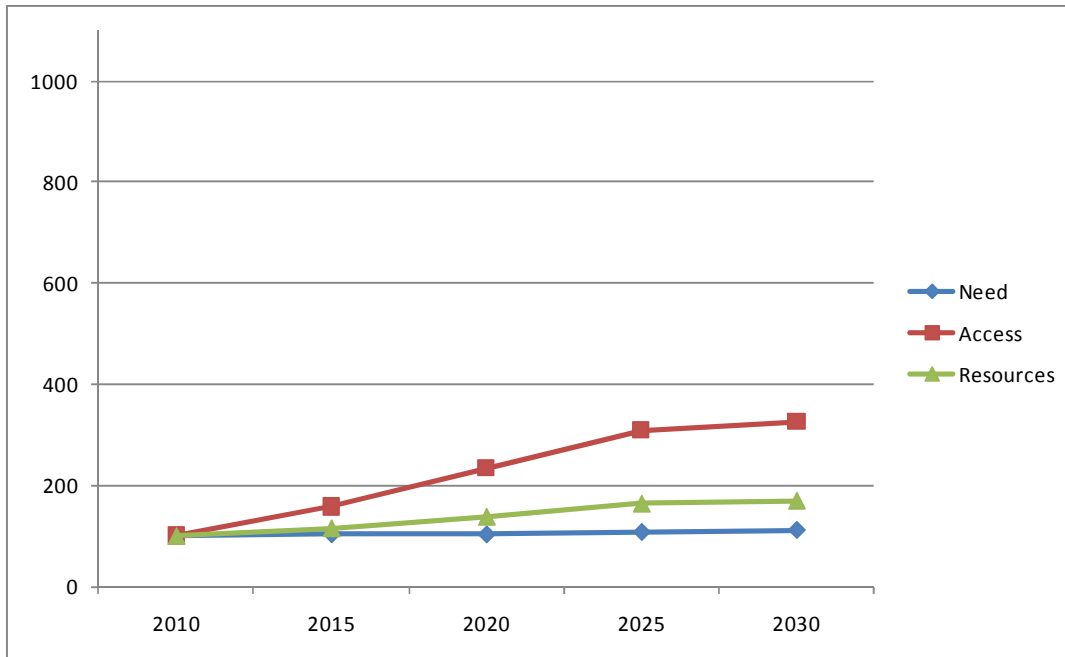


Table 12: Scenario 2 - Relative change in Need, Access and Resources (2010 =100)

	2010	2015	2020	2025	2030
Need	100	105	105	110	115
Access	100	161	241	318	339
Resources	100	117	144	171	180

Key points:

- As in the scenario one overall need is growing modestly, slightly above the population.
- The access index shows the number of people accessing some form of organised MH&A response growing almost 2.4 times by 2020. Slightly less than scenario 1 due to the longer term impacts that this scenario models on demand. For example, intervening with high risk youth (journey 4) has a flow on effect on demand for high severity specialist services (journey 6).
- Factoring in the impacts of linked demand across the life course total resources grow by 44% by 2020. This is 2% less than scenario 1.

As with scenario 1 the service mix changes substantially under this scenario as shown in the graph below:

Figure 20: Scenario 2 - Relative change in activity by consumer journey (2010 = 100)

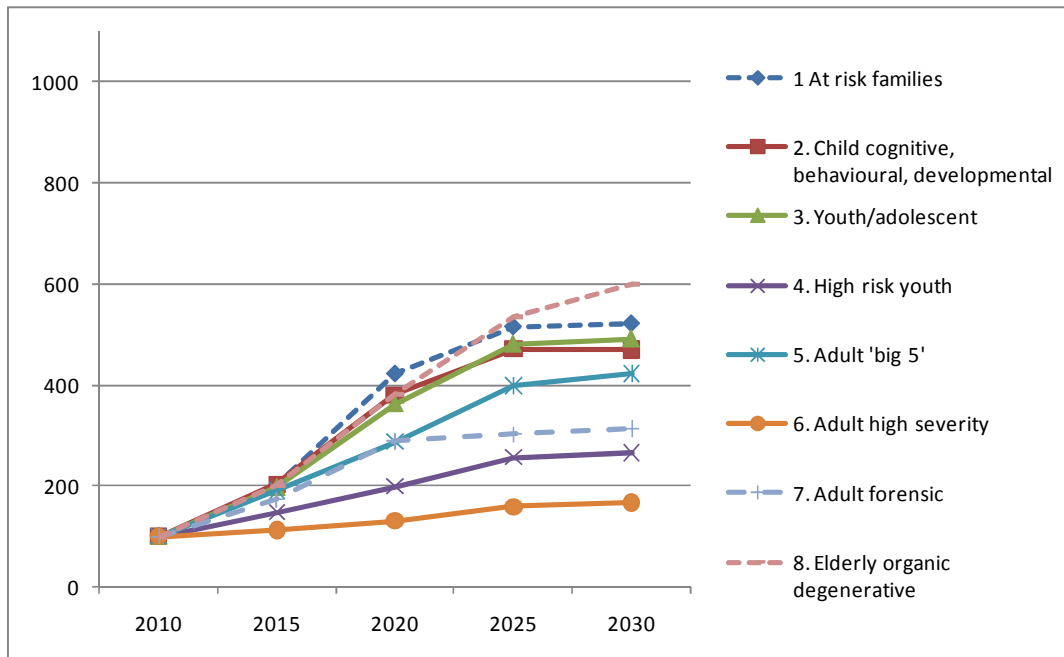


Table 13: Scenario 2 - Relative change in activity by consumer journey (2010 =100)

	2010	2015	2020	2025	2030
1 At risk families	100	208	436	528	536
2. Child cognitive, behavioural, developmental	100	208	393	497	493
3. Youth/adolescent	100	200	374	488	507
4. High risk youth	100	177	259	347	366
5. Adult 'big 5'	100	194	293	405	435
6. Adult high severity	100	113	132	161	171
7. Adult forensic	100	174	291	304	319
8. Elderly organic degenerative	100	184	336	463	531

Key points:

- The results follow the same trend as scenario 1 but with slightly less effects across each customer journey due to the effects of changing demand.

Figure 21: Scenario 2 - modelled changes in resource usage by consumer journey (\$m)

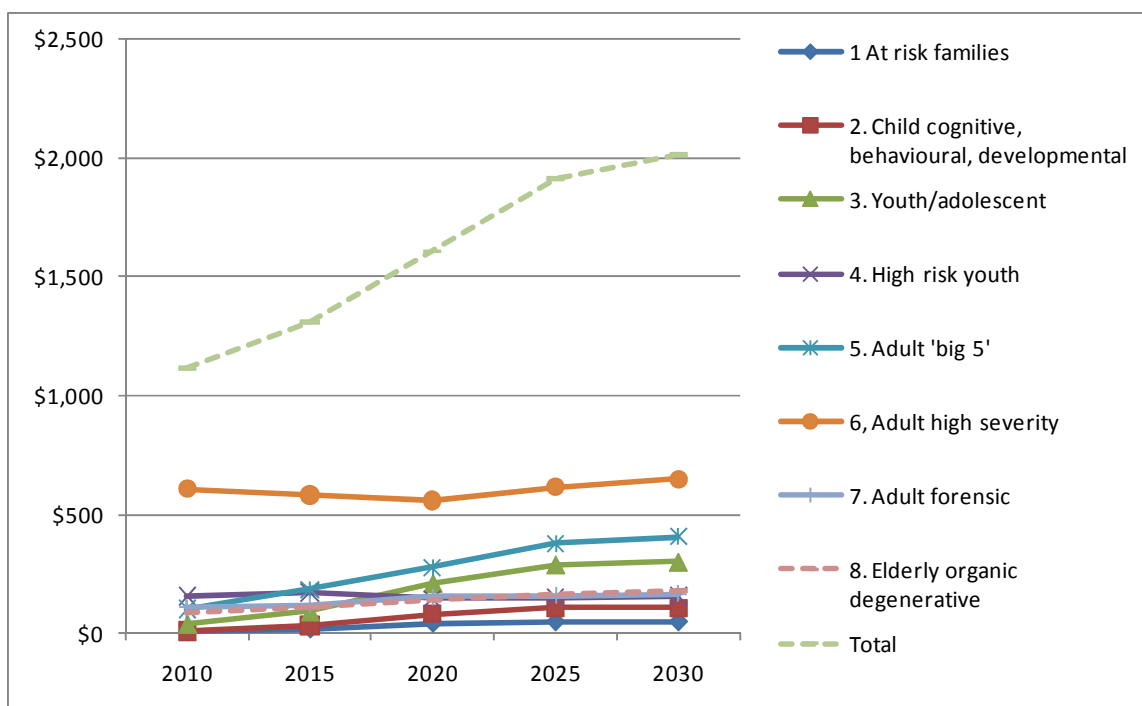


Table 14: Scenario 2 - modelled changes in resource usage by consumer journey (\$m)

	2010	2015	2020	2025	2030
1 At risk families	\$9	\$20	\$43	\$49	\$49
2. Child cognitive, behavioural, developmental	\$10	\$33	\$81	\$109	\$108
3. Youth/adolescent	\$38	\$90	\$211	\$290	\$302
4. High risk youth	\$156	\$171	\$147	\$151	\$157
5. Adult 'big 5'	\$102	\$186	\$277	\$378	\$405
6. Adult high severity	\$606	\$581	\$557	\$616	\$649
7. Adult forensic	\$107	\$121	\$152	\$159	\$167
8. Elderly organic degenerative	\$90	\$110	\$138	\$160	\$177
Total	\$1,117	\$1,311	\$1,607	\$1,912	\$2,014

Key points:

- The results follow the same trend as scenario 1 but with slightly less effects across each customer journey due to the effects of changing demand.

Figure 22: Scenario 2 - Relative change in activity by service level (2010 = 100)

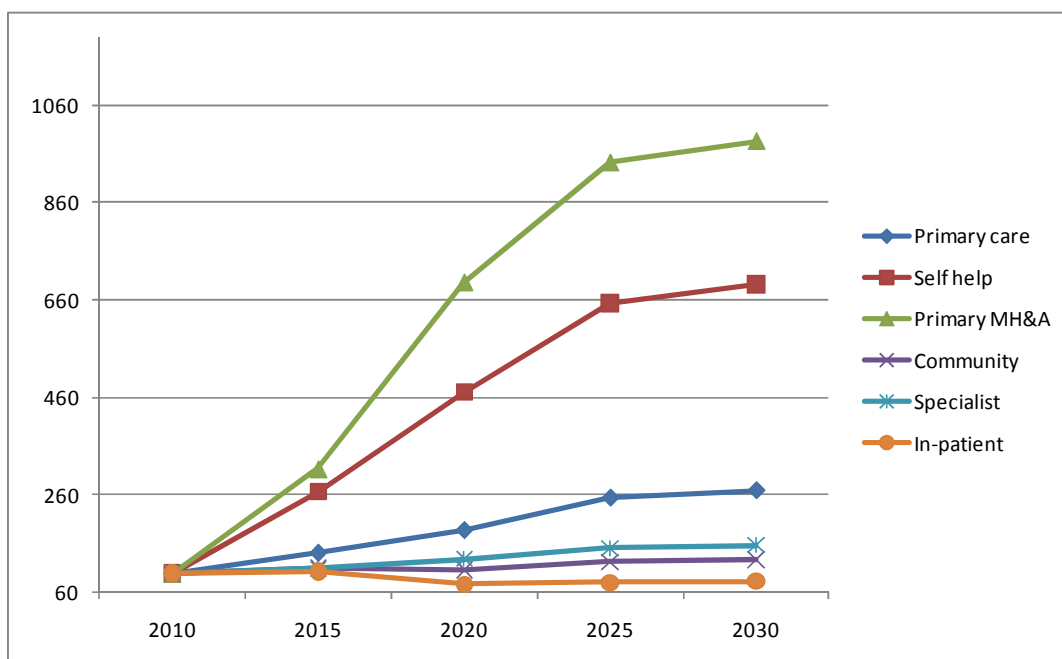


Table 15: Scenario 2 - modelled changes in activity by service level (2010 = 100)

	2010	2015	2020	2025	2030
Primary care	100	145	192	259	277
Self help	100	270	480	664	712
Primary MH&A	100	317	708	954	1012
Community	100	111	108	124	131
Specialist	100	110	134	159	167
In-patient	100	107	90	95	101

Key points:

- The results follow the same trend as scenario 1 but with slightly less effects across each customer journey due to the effects of changing demand.

Figure 23: Scenario 2 - modelled changes in resource usage by service level (\$m)

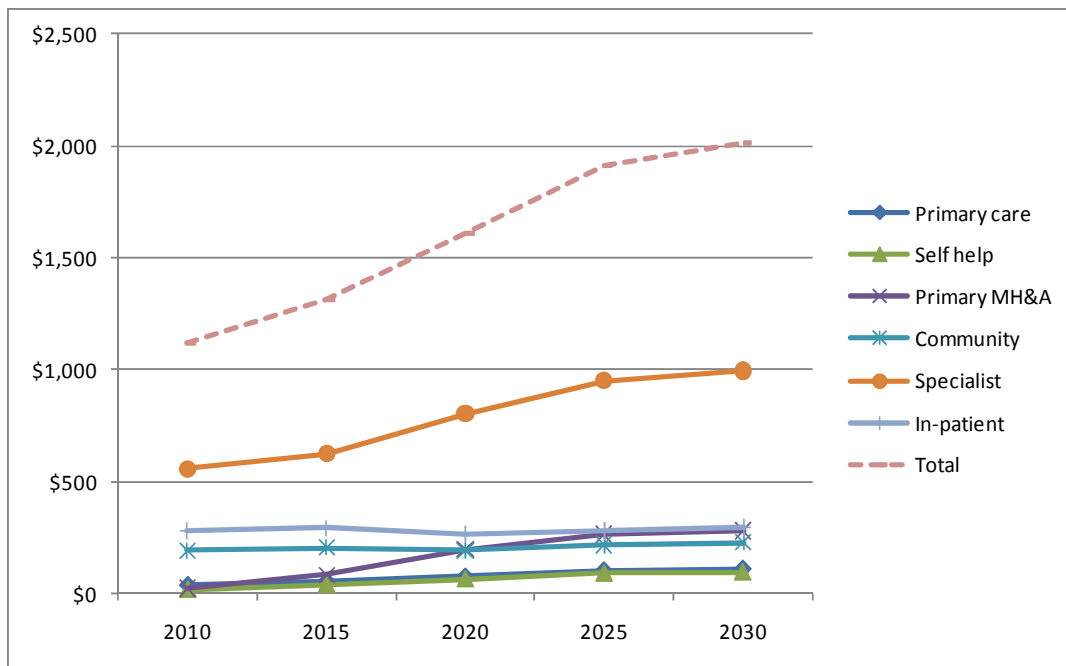


Table 16: Scenario 2 - modelled changes in resource usage by service level (\$m)

	2010	2015	2020	2025	2030
Primary care	\$40	\$58	\$78	\$104	\$112
Self help	\$19	\$41	\$67	\$92	\$98
Primary MH&A	\$25	\$86	\$199	\$267	\$282
Community	\$194	\$206	\$193	\$218	\$230
Specialist	\$557	\$626	\$804	\$951	\$995
In-patient	\$281	\$294	\$266	\$280	\$297
Total	\$1,117	\$1,311	\$1,607	\$1,912	\$2,014

Key points:

- The results follow the same trend as scenario 1 but with slightly less effects across each customer journey due to the effects of changing demand.

Summary and Next Steps

By comparing each scenario against the base case, by 2020 the following would need to be achieved to meet the challenge.

Overall the modelling indicates that we can meet the challenge implied by the vision for 2020. By utilising the results from scenario 2 this will require:

- A 250% increase in access to 'organised MH&A responses'
- A 45% increase in resources available for MH&A.
- A rebalanced mix of responses across a life course continuum of eight distinct consumer journeys.
- A strong focus on intervening across the life course to disrupt the trajectories of travel that MH&A customer often travel.

As discussed above this modelling is preliminary and focussed at a whole system, life course level. In order to build on this base of modelling the next steps should include:

- A detailed calibration of current demand into each of the 8 customer journey areas to increase the base case fit with realities of current service demand levels.
- A detailed review of the budgets and costs within each service option.
- Further analysis of the elements within each of the services options (or care packages) that have been built into the model.
- Analysis of the interaction and time delays that exist between customer journeys. Particularly where there is evidence that intervening with one customer journey group has a downstream impact on another – the evidence in this area requires robust review.
- Checking with experts to ensure that a number of implied implications inherent in the modelling represent the patterns of behaviour we would like to see. For example:
 - An increase in the access to MH&A support for those with lower level severity disorders.
 - Check the acceptability of core modelling assumptions such as the assumption that it is people want to be recognised and access MH&A supports, particular at lower levels of need.
 - A continued increase in the specialist workforce resource.
- Increase the accessibility and usability of the modelling tools to support broader usage by the sector to interrogate and communication the vision.

Appendix 6: References

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