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# Toward a Whole of Government/Whole of Nation Approach to Mental Health

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*The Prime Minister asked Sir Peter Gluckman to bring the team of relevant science advisors together to work with the social sector board, including the Ministry of Health, iteratively to develop a holistic strategy to meet the challenge of mental health, appropriately recognising the broader context of the issues.*

*A separate report is being prepared on the issues of youth suicide<sup>1</sup>.*

## Introduction

At present, the structure in New Zealand for treating mental disorder and supporting mental health is neither optimal nor working well. There are at least six reasons for this:

- 1) we do not, as a society, grasp the extent and severity of the problem;
- 2) the context of the way we live our lives as a society has changed and that imposes a greater burden on our mental health resilience
- 3) although we understand that all parts of the social sector deal with the fallout from this systemic insufficiency, we have not built a whole-of-government response;
- 4) we do not recognize or treat many of those who need it;
- 5) when we do treat, we do not always use the right approach;
- 6) we do not pay enough attention to prevention and early intervention and the maintenance of mental health.

However, we have the understanding to design and build a new structure that is enabled by the social investment approach. The new structure will involve all social-sector ministries, because they not only deal with the consequences of the

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<sup>1</sup> It is now available at: <http://www.pmcsa.org.nz/wp-content/uploads/17-07-26-Youth-suicide-in-New-Zealand-a-Discussion-Paper.pdf>

broken system, they are also part of the solution – and some of the needed resources are already in place.

What is needed is:

- 1) the bringing together of those pieces into a coherent whole;
- 2) an understanding that mental health is not just a health problem;
- 3) upgrading skills and building new capacity across the sector;
- 4) a focus on prevention, early detection, and better treatment;
- 5) an understanding of the life course and its implications for mental health;
- 6) active consideration of those contextual levers that can be reached;
- 7) time.

## **Section 1: Understanding The Burden of Mental Illness**

1. The Global Burden of Disease project shows that mental-health disorders are associated with a high population burden based on the extent of the disability experienced by sufferers across their lifetime<sup>1,2</sup>.
2. The true lifetime prevalence rates of mental illness are much higher than many people assume: more than half the population are likely to experience a disorder at least once in their lives. The 12-month prevalence is approximately 20%; in other words, in any one year, one in five New Zealanders will present with a mental disorder that sufficiently impairs their lives to warrant intervention<sup>3</sup>.
3. The evidence suggests that only a minority of people suffering from diagnosable mental disorders receive treatment for their problem<sup>4,5</sup>.
4. Most adult psychiatric disorders have their onset before the age of 18 years. This implies that ‘adult’ disorder is a misnomer in most cases; rather, these disorders are juvenile (and sometimes childhood) disorders grown-up<sup>6-8</sup>.
5. Everyone has friends, family, whanau, colleagues who have experienced or are currently experiencing mental illness.
6. Layard makes the point that, for chronic physical illnesses, we have no problem, as a society, agreeing that we need to provide appropriate diagnostic and treatment services<sup>9</sup>. Mental illness, with its comparable burden of morbidity, similarly requires appropriate diagnostic and treatment services and needs to be on an equal footing.
7. The challenge is compounded by the failure of many people to understand their own mental health status, by contextual factors that make our mental health more likely to be challenged, and by lack of understanding of the importance of programmes that promote mental wellbeing, particularly in early life.
8. The current approach works well for some people some of the time but:
  - a. there are people and groups who experience markedly worse mental health outcomes as a result of the current approach (as well, often, as poor outcomes across many other areas e.g. education, employment, income, crime);
  - b. the approach is better at tackling some types of mental illness than others;
  - c. intervention is often too late (once problems have become severe);
  - d. and, as is clear from point 3 above, that intervention may never come.

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9. We need a new paradigm for mental disorder and mental health in New Zealand.

## **Section 2: The Principles Underpinning a New Paradigm**

1. Good mental health improves and maintains all areas of our lives, as well as having marked and widespread social and economic benefits. Drivers and consequences of good and poor mental health are everywhere, impacting, being influenced by, or both:
  - a. family /whanau<sup>10,11</sup>
  - b. employment and unemployment<sup>12-16</sup>
  - c. the changing nature of society (urbanization<sup>17-19</sup>, digitalization<sup>20-23</sup>, rapid change<sup>24-27</sup>, etc,)
  - d. Developmental influences from before birth to adulthood<sup>28-35</sup>
  - e. the economy<sup>36-44</sup>
  - f. education<sup>42,45-48</sup>
  - g. justice/police/prisons<sup>49-52</sup>
  - h. poverty<sup>16,53-56</sup>
  - i. alcohol<sup>50,57-63</sup>
  - j. drug use<sup>50,64,65</sup>
  - k. nutrition/hunger<sup>55</sup>
  - l. physical activity<sup>66</sup>
  - m. genetics<sup>67-70</sup>
2. With this complex net of influences, using the concept of the life course<sup>10,71,72</sup> allows us to:
  - a. understand that what happens early in someone's life – both beneficial and traumatic – can have a major impact on their future health, including mental health;
  - b. appreciate that there is an optimal time for each mental and physical developmental stage for at least the first 2 decades of life (as well, in a less marked way, for the rest of life) – and therefore optimal times to intervene;
  - c. focus on well-being, resilience, habits, and family, social, and educational support that build mental health and reduce the likelihood of mental illness;
  - d. acquire early evidence when expected development – mental and emotional as well as physical – does not occur;
  - e. intervene early and broadly to support, nurture, and encourage development;
  - f. appreciate that, although on-time development and early intervention are better, anytime is appropriate for the alleviation of emotional pain and the acquisition of new life skills;
3. We need to acknowledge that there is a gap between what we know and what we do. This gap is characterised by four key considerations:

- a) we are not recognising as a society the complexity and magnitude of the problem<sup>3,73</sup>;
  - b) we must appreciate that the rapidly changing nature of how we live our lives challenges our resilience and exposes us to greater threats to our mental health – this means the level of need will continue to rise<sup>27</sup>;
  - c) we are not responding to the manifest level of need<sup>51</sup>; and
  - d) when we do respond, evidenced-based interventions are not always applied<sup>9,51,74</sup>;
4. We need to ensure that we do not simply deliver more of what we already do; failure to change will mean disrupted, unproductive lives and a continuing high financial burden on the state
  5. We need to understand that disturbances of mental equilibrium and mental health are multifactorial: that many different parts of our history, our experience, our cultural background, our genetics, and our current circumstances can conspire to induce mental illness. That means that there are no simple or singular steps towards prevention, treatment, and remediation; rather, there is a need to pay attention to multiple aspects of both environment (family, community, workplace, and living space) and individual coping skills. Recent changes in societal structures (urbanisation<sup>17-19</sup>, digitalisation<sup>20-22</sup>, changed ways of interacting in larger networks<sup>24-27</sup>, social isolation<sup>75</sup>, etc.) disturb our psychological equilibrium and challenge our mental health – these forces will continue to drive demand. For the nurturing of children’s mental health, there is a need to focus particularly on parenting skills, prevention of family violence, encouraging opportunities for play, exercise, and learning self-control skills, fostering healthy human interactions, behaviors, and skills in the cyber world, as well as underlying drivers of stress, particularly poverty and housing problems. For everyone, mental-health services need to be part of the social infrastructure that is in the business of fostering health as well as short-circuiting the descent into despair for individuals, family, whanau, and community.
  6. We also need to understand that despite a proliferation of diagnoses in official diagnostic manuals (*e.g.*, DSM-V), the structure of mental-health disorders (more formally known as psychopathology) is far less differentiated than these suggest. The network of risk factors is complex but there are some very general psychological mechanisms at work and the structure consists of a core underlying vulnerability factor (sometimes known as the p-factor)<sup>73,76,77</sup>, with more granular distinctions involving a tendency to become depressed and anxious (called “internalising” disorders); a tendency to act out (substance abuse problems, ADHD, conduct disorder – collectively called “externalising” disorders); and, finally, a tendency to thought disorder (psychosis, bipolar disorder).
  7. It is important that we understand that there is a difference between robust mental health and the simple absence of mental illness – and mental health is

surprisingly uncommon<sup>73</sup>. Many who do not suffer from mental illness do not possess good mental health – and may be in a vulnerable state if put under stress: mental, physical, emotional, or financial. Therefore, particular attention needs to be paid to the acquisition of habits and skills that nurture mental health, not just keep mental illness at bay.

8. As a nation, we need a much better understanding of how malleable fetal, infant, and adolescent brains are and how much they can be impacted by both beneficial (good parenting, love, appropriate direction and discipline, good nutrition) and malign (alcohol, tobacco, violence, abuse, absence of care) influences throughout the first two decades of life. This malleability directly contributes to the vulnerability associated with the p-factor (point 6 above); it leads us to consider the importance of education, not just education of children in school, but education of everyone across the whole community, as they support those beneficial influences and reduce the deleterious ones for growing children. Because particular life circumstances are more threatening to the development of mental illness in the young, expending energy, care, and social investment in this most vulnerable group will reduce both misery and costs in the longer term. In this regard, attention needs to be paid to housing, parenting, violence, smoking, alcohol, drugs, etc.
9. Furthermore, it lies well within the mental health framework to discuss:
  - a) the development of critical reasoning as a required skill, in order to understand automatic negative reactions/cognition, and especially as it pertains to negotiating and navigating the internet;
  - b) the development of self control and non-cognitive executive functions that generate greater eusocial behavior and mental health resilience;
  - c) understanding and use of science to explore the world, attain perspective, negotiate life choices, and find meaning;
  - d) the development of social and collaborative skills that contribute to civic engagement and the development of social capital as part of an effort to nurture healthy, interactive environments for people to live in<sup>26</sup>.
10. It is essential that we acknowledge that alcohol misuse plays an important part in the burden of mental illness in New Zealand. Alcohol use, when excessive, can lead to a diagnosis of abuse or dependency. Those with alcohol abuse or dependency problems typically have high rates of other psychiatric disorders<sup>62</sup> – a bidirectional association. Alcohol abuse is both cause and consequence: alcohol use can lead to or exacerbate mental-health problems (as well as high-risk behaviours such as unprotected sex), as well as being a consequence of other psychiatric conditions, as self-medication takes over; those suffering from mental dysfunction use alcohol in an attempt to control their symptoms and distress. Alcohol misuse has pernicious effects from the beginning of life. Specifically, alcohol use during pregnancy has been shown to significantly impair the unborn child's life chances, including elevating the risk for later

behavioural and emotional disorders<sup>61,63</sup>. More generally, family functioning can be severely impacted upon by parental alcohol abuse, ranging from increased risks for intimate partner violence and child neglect through to inconsistent parenting and high rates of serious childhood injury<sup>61</sup>. Therefore, any approach to improvement of mental health has to include discussion of alcohol misuse – at the level of the individual, the family/whanau, the community, and the whole nation. New Zealand has a very permissive culture in relation to alcohol and the difference between use and misuse is often not clear<sup>78,79</sup>; there is, however, a widespread realisation that alcohol plays a major role in violence, vandalism, dangerous driving, and traffic crashes as well as an expectation that local government will prevent alcohol becoming a problem in the community<sup>80</sup>.

11. Central to the way we deliver mental-health care is a reorganisation of support services to the vulnerable so that the way in which interactions occur are focussed on the individual in need, not on the priorities of the service deliverer. We need, particularly, to ensure a predictable, preferably single, point of contact for services for each individual. This has been shown to be appropriate even in the setting of specialised integrated care for psychosis<sup>81</sup>. This must, however, be balanced with the opportunity for vulnerable people to have options and alternatives, especially in the underserved communities.
12. There is a high level of commitment required to work in support of mental health and with those with mental illness. To build a resilient system, we need to ensure that we value and enhance the mental health of our mental-health workers in order to support the mental health of our whole society<sup>82,83</sup>.

### **Section 3: The Response - its key elements**

#### **1. Prevention in young people**

- a. Although the most important and most highly vulnerable developmental time is pre-pregnancy to age three, evidence shows that some interventions work and some resilience can be fostered at every age, even among those most damaged. Therefore, we approach the problem of vulnerable children (often in disadvantaged communities) across life stages as though there is always room for improvement or rescue;
- b. The life-course approach insists that we must pay attention to the transition stages so that:
  1. assessment of vulnerability is possible for each child/adolescent. From the Dunedin Longitudinal Study, we know that approximately 20% of individuals account for about 80% of the high-cost outcomes in adulthood. Vulnerable individuals can be differentiated from their peers by at least four childhood disadvantages: growing up with greater SES deprivation; experiencing childhood maltreatment; scoring poorly on childhood

- IQ tests; and exhibiting low childhood self-control. Moreover, a 45-minute examination that includes assessments of neurological soft signs, intelligence, receptive language, and motor skills provides a summary brain-health index. Variation in this index, at three years of age, predicts, with impressive accuracy, who will be members of multiple high-cost segment 35 years later. Vulnerability can be assessed using this index at a very young age. Appropriate prevention, rescue, and remediation strategies can be implemented with the likelihood of greater ROI than later attempts;
2. there is a secure transition from one responsible agency to another for those whose increased vulnerability is already known, keeping in mind the goal of maintaining a predictable, preferably single, point of contact;
  3. services are geared such that transition protocols are both in place and regularly reviewed for their effectiveness and completeness.
- c. Identification of those at risk;
  - d. Identification of communities at risk;
  - e. Community education to promote self-recognition of mental ill-health and to remove the stigma associated with mental disorder;
  - f. Support not just for at-risk individuals but for vulnerable families and whanau and at-risk communities;
  - g. Further, and crucially there are non-medicalized approaches to healthy development with strong potential dividends. Positive social skills and self control can be promoted both directly through parenting practices and teaching<sup>84,85</sup>, as well as indirectly in the design of environments for children and young people. For example, providing safe places for children to engage in unstructured play allows for natural practice in self-control, team-work, perspective-taking, dealing with frustration, confidence-building, leadership, and problem-solving. Making sure children have access to sport and music fosters healthy neurodevelopment without the potential stigma of having a social worker engaged in their lives. A randomised controlled trial has demonstrated that physical activity (PA) enhances cognitive performance and brain function during tasks requiring greater executive control<sup>86</sup>, demonstrating a causal effect of PA on executive control, and providing support for PA as improving childhood cognition and brain health, although the mechanisms remain to be clarified<sup>66</sup>;
  - h. Evidence has shown that media channels (TV shows such as *Sesame Street*) that directly support socialization<sup>87</sup>, learning<sup>88</sup>, and resilience<sup>89</sup> in children can be positive influences on childhood development. Equally, we need wider knowledge of the immediate negative impact of fast-moving cartoons on executive function in children<sup>90</sup> and total screen time on mental health<sup>91,92</sup>.
  - i. Increased access to and usage of digital technology is associated with risks to psychological wellbeing<sup>4,93</sup>. For example, social media, coupled with personal devices, increase opportunities for bullying behaviour online (cyber-bullying). Non digital forms of bullying have robust

relationships with indices of wellbeing, specifically social and health outcomes<sup>94</sup>. There is some evidence for negative effects of multitasking for cognitive and brain development, affecting both efficiency and accuracy of performance, especially among younger children whose attention systems and executive functions are immature<sup>93</sup>. However, well designed uses in classrooms can increase self-control and social skills; *e.g.*, adding well designed games to business as usual in the classrooms<sup>95</sup>, when tasks are sufficiently complex and developmentally appropriate, where there is greater self-regulation and engagement, and where there is substantial teacher guidance<sup>96</sup>. Current evidence is that access and usage alone without attention to complexity, matching and mediation by teachers does not increase quality of learning<sup>97</sup>.

In more detail, prevention in young people might look something like this:

- i. From conception to birth, implementation of systematic evidence-based antenatal care delivered by an expanded and specialised service provided by midwives, Tamariki Ora workers, other Iwi-based support workers, and Plunket nurses. This could be implemented as part of the new Better Public Services Goal 2 (Healthy mums and babies), which aims at having by 2021, 90% of pregnant women registered with a Lead Maternity Carer in the first trimester;
- ii. Risk assessment occurs during this period as does assessment of mother for depression<sup>98</sup> and adverse behaviours including use of tobacco<sup>99</sup>, alcohol<sup>63</sup>, and illicit drugs<sup>100</sup>;
- iii. At birth, well-child providers, including Plunket, provide a universal intervention intended to:
  1. eliminate, reduce, and ameliorate known and suspected malign influences. This aligns with the Better Public Services Goal 4 (Vulnerable Children), which aims to reduce the number of children experiencing physical and sexual abuse by 20 percent by 2021;
  2. teach, demonstrate, and support warm, sensitive, and stimulating parenting practice as an early precursor of good socioemotional function. Parenting practice varies enormously around the world, such that it is hard to find commonalities, even bonding and physical and emotional closeness are not universals<sup>101</sup> but they are central to many parenting practices: the initial bond between parent and child is crucial, is formed early, and becomes the model for future relationships<sup>102,103</sup>. Parenting continues through childhood and adolescence;
  3. use family, whanau, and neighbourhood resources and links to reinforce this approach. Indeed, treatment and early intervention does not have to look like treatment: it can be a toy library acting as an intervention for a stressed, isolated parent who can use it to find community, resources, empathy, and advice;



Steps 1-3 should be titrated according to need *i.e.*, targetted or proportionate universalism<sup>104</sup> – or Maximin ethics<sup>105</sup> – under which those in greater need are provided with greater investment of resources and support. At the extreme end of need (5%), this would include an organized approach to nurse-family partnerships<sup>106,107</sup>. Supporting children in opportunities for exercise and play together helps contribute to their mental health<sup>108</sup> as well as to social equality<sup>82</sup>.

- iv. Monitoring of growth and development begins during this period;
- v. At age 2 years, much of the coordination and delivery is transitioned seamlessly to early childhood education (ECE) with a needs profile accompanying each child;
- vi. Further risk assessment should occur during this period;
- vii. All ECE teachers need to be trained to inculcate – in an age-appropriate fashion through to primary-school entry – non-cognitive skills, *e.g.*, self-control (or emotional regulation) and other social skills that develop the empathy and awareness that are needed for care of, and concern for, others. Non-cognitive as well as cognitive skills are assessed on all children on completion of ECE;
- viii. Primary school builds on this with a prioritised focus on development of socioemotional skills. Mental health has a strong social component: children learn emotional regulation via a community of people who can teach/model coping skills. With this as the goal, ensuring children have opportunities for mentorship, coaching, and guidance (*e.g.*, community and cultural activity, sporting teams, traditional groups like Guides/Scouts, etc) could complement a single-point-of-entry system for those in distress or difficulty, and allow children who are different to gain acceptance – consider, for instance, the potent New Zealand film, “*The Dark Horse*” (<http://www.imdb.com/title/tt2192016/>).
- ix. This continues through the transition into secondary school but with the focus on age-appropriate issues, *e.g.*, sexual behaviour, alcohol and other substance use, etc., building on Positive Behaviours for Learning and other elements of the former Prime Minister’s Youth Mental Health Project;
- x. The development of the Communities of Learning /Kāhui Ako provides a design for optimising transitions between Early Childhood Education services, primary schools and secondary schools (<https://education.govt.nz/communities-of-learning/evidence-and-data/>). With appropriate measures for identifying skills from early childhood through to graduation from secondary school, this will enable more secure transitions to be promoted.

- xi. Throughout the early lifecourse (0-18 years), attention needs to be paid to the cumulative benefits of coherent approaches *e.g.*, to the development of self-control and other social skills across early-childhood, primary, and secondary education. This approach also results in long-term benefits as young adults enter the workplace with high-level social and emotional skills and honed self control and executive function<sup>109,110</sup>. Structural and functional changes in the brain have been shown with cognitive therapy (external influences) and certain forms of meditation (internal influences) and suggest that self-control, well-being, and other prosocial characteristics might be entrained or enhanced by specific techniques<sup>111</sup>. We also need to explore directly targetting civic engagement as a potentially self-reinforcing iterative intervention: those who develop consideration for the group will teach others to consider the whole community, thereby increasing societal mental health<sup>112</sup>.

Such a new approach would entail shifts in focus and practices among professional groups: *e.g.*, more deliberate evidence-based practices in early childhood education and in schooling, based on the recognition that current curricula enable the desired outcomes but that there is variable and limited impact on self control and social skills. This would require retraining and additional training, *e.g.*, among Plunket nurses and ECE.

Digital media (including social media) afford increasingly immediate and direct access to commentary, information and ideas with a consequent amplification of social influence and shaping of ideas and beliefs. There is the risk of children and young people increasingly belonging to insular networks with the sharing and perpetuating of misinformation including judgements about one's health and well being<sup>23</sup>.

Deliberate and planned practices by teachers are needed if children and young people are to gain positive skills from access to, and use of, Digital Environments (DEs) in and outside of classrooms<sup>96,97</sup>, and if risks associated with DEs such as cyberbullying are to be reduced.

The underlying logic is clear:

- understand that there is a marked contrast between poor and optimal human development;
- comprehend that these outcomes benefit or harm the whole of society;
- invest in services to match need, reduce harm, and optimise benefit.

## **2. Prevention and Treatment in Adults**

### **Mental-health services today**

In-patient hospital care is typically required for the most severe cases of mental-health disorder, especially during florid states (*e.g.*, formal thought disorder or extreme depression). However, in some settings, appropriately resourced services are now capable of managing severe presentations in the community.

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Other so-called moderate and milder cases of disorder are far more common and are typically dealt with in an outpatient setting.

Nonetheless, describing disorders as mild-to moderate is rather misleading: they may represent a lower burden on treatment resources than the psychoses and bipolar disorder, but people suffering from the higher prevalence anxiety, depression, and substance-dependence disorders experience substantial distress and dysfunction, with persistent interference in their ability to function socially and occupationally. The distinction is a relative one, mainly because comorbidity is the rule, not the exception, for mental illness. In other words, people that we regard as having severe mental illness – and even sometimes those with apparently more moderate dysfunction – typically experience multiple disorders, either simultaneously or sequentially.

The science showing underlying vulnerability as the key driver of mental illness (see Point 6 of Principles above) also shows that many people progress through so called milder forms of disorder before ending up at the extreme end of the need continuum. This implies many preventive opportunities exist, but only if early signs of mental illness are addressed properly.

*What do the extent of the New Zealand burden and the new insights into mental health and disorder imply for service delivery?*

#### **Treatment**

- a. The rates of disorder requiring treatment are far higher than the current level of service provision can cope with. Service response capacity should therefore be substantially increased<sup>113</sup>.
- b. There is clear and substantial evidence from randomized controlled trials (RCTs) that cognitive behavioural therapies (CBT) for a variety of psychiatric disorders are at least as effective and sometimes much longer lasting than drug therapy<sup>74,114-117</sup>. This means actual implementation of CBT not just supportive psychotherapy.
- c. Treatments can, and possibly should, be more generic (i.e transdiagnostic) and targeted at the core vulnerabilities underlying disorders<sup>118,119</sup>.
- d. Computer-delivered treatments should be a priority. Both mental-health professionals and service users need to be educated about their benefits<sup>120-123</sup>. Their advantages include being: (i) as effective as traditional face-face therapy (RCT data); (ii) able to be delivered with high fidelity; (iii) massively scalable, and (iv) highly cost-efficient.
- e. Computer-delivered courses work for psychiatric disorder at all levels of severity. They can also be deployed preventively in school settings to good effect (again the evidence here is strong and via RCTs).
- f. Computer-aided professional development of the mental-health workforce is needed. There are both benefits and barriers to uptake of computer-delivered training and therapy<sup>120,121,124</sup>. Implementation strategies for optimising benefits in New Zealand are likely to include:

- i. strong endorsement of e-mental health services by government agencies
  - ii. more education for clinicians and consumers
  - iii. consumer input into programming ensuring cultural relevance
  - iv. adequate funding of e-based approaches and infrastructure
  - v. establishing an accreditation system
  - vi. supporting translation-focussed activities
  - vii. supporting research on uptake and translation
- g. There are, of course, vulnerable populations, in whom mental illness is over-represented. This is particularly true for displaced persons<sup>125-127</sup>, prison populations<sup>49-51</sup>, the LGBT population<sup>128</sup>, and people abused as children<sup>129,130</sup>; we should pay particular attention to the needs of these groups as we contemplate better ways to deliver services. There are 4000 corrections officers, an appropriate proportion of whom could be trained in CBT and the transfer of other supportive and developmental skills<sup>131-133</sup>.

### **Prevention**

- h. As already noted, prevention is far more cost-effective than cure. The core vulnerabilities underpinning mental-health problems stem in part from poor neurodevelopment. Prevention and early intervention focussed on maximising strong neurodevelopment should be part of a comprehensive package aimed at addressing mental illness. This includes not only the growing acceptance of the importance of learning self-control among the young but also an extensive array of approaches derived from a variety of cultures and disciplines that provide adults with a greater capacity for self-control, better focus, more control over negative emotions, and a generally less reactive approach to situations (family, work, transactional) that might be stressful; these disciplines, which are increasingly recommended but may still need more evidence, include approaches to mindfulness, tai-chi, yoga, concentration and meditation exercises, mental resilience training, anger management, etc. – the highest benefit seems to come from those with a strong cognitive component. Supporting this approach to the mental via the physical is emerging evidence for the direct connection between the cerebral cortex (roughly identified with mind) and the autonomic and endocrine systems that control internal organs<sup>134</sup>. What this research has established is a clear link between mental states and physical disease and perhaps a link between physical states and mental disorder and a route for understanding why specific physical practices may improve and support mental states.
- i. We need to increase individual, family/whanau, and societal support for the promotion of healthy coping and the provision of necessary teaching and training, independent of formal service delivery structures (consistent with Principle 10).
  - j. In addition to targeted therapies (see above), in what ways can we influence the adult capacity for coping? Accessing the enormous

influence of television shows to model kindness, discuss conflicts, and solve problems seems like low-hanging fruit – see above in relation to prevention in children. Passive media may be useful here: Brazil has used telenovelas to support social change; “Cheers” was among the very few effective interventions to make designated driving a widespread harm-reduction strategy in the US; New Zealand has used very potent culturally appropriate public-service announcements in relation to drink driving and speeding.

### **3. Importance of Culture**

There are many aspects of our culture that can be supportive or detrimental toward mental health but, for the purposes of this discussion, there are two important components:

- a. Mātauranga Māori<sup>135-138</sup> – important because it provides insights into ways of living, not only for Māori, but for all New Zealanders – and Kaupapa Māori as an approach to research<sup>139,140</sup>; there is a great deal to learn here and to share across cultural divides. Māori have higher rates of mental illness and mental distress than non-Māori; in the 2006 report: Te Rau Hinengaro: The New Zealand Mental Health Survey, after accounting for sex, age, income, and education, Māori prevalence (23.9%) of any psychiatric disorder was significantly higher than those of European/Other (20.3%), with Pacific people similar to European/Other (19.2%). For serious disorders, the adjusted prevalences were 6.1%, 4.1%, and 4.5%<sup>141,142</sup>. Mātauranga Māori is likely to contribute to our collective capacity to understand and ameliorate this excess risk;
- b. striving for unattainable goals; this is a major source of life stress in New Zealand society and a characteristic that has become intrinsic to the way we live. Its impact is markedly exacerbated by the degree of inequality in society<sup>39,65,143-145</sup>, independent of the impact of poverty, which is also important<sup>16,53-55</sup>; the data on the impact of inequality are clear, although debate around mechanisms remains<sup>40,146</sup>.

### **4. Collective impact of a wide range of players**

As we redesign the way in which we think about mental health in New Zealand, it is important to remember that this is not an issue just for the Ministry of Health, DHBs, and the rest of the health sector, but involves other Ministries as well: MSD, Oranga Tamariki, Education, Justice, Police, Housing, etc. Further, it is essential that we remember that this is not an issue just for government and government services but involves individuals, families, whanau, Iwi, NGOs, community groups, employers, etc.

### **5. Housing**

Lack of housing is a high-level stressor for essentially all humans, especially children<sup>147-150</sup> – and is more common among those with mental illness, whether

as contributory cause or consequence. Reducing the burden of homelessness is an important part of any coherent multi-agency programme that aims to ameliorate the burden of mental illness in New Zealand. It has been shown in a number of studies – both “Housing First” (see below) and other approaches – that providing permanent supportive housing reduces costs across a variety of other social services<sup>151-153</sup> and shows some evidence of improved mental health<sup>153-155</sup>, including in New Zealand<sup>156</sup>, as well as reducing alcohol use/misuse<sup>157,158</sup> though not the use of illicit drugs<sup>157,159</sup>. There may be differences that depend on severity of mental illness, with those with the most impairment doing better with a full supportive housing programme<sup>160</sup>. Affordability is relevant, with an Australian study showing that unaffordable housing probably reduced mental health<sup>161</sup>. A number of studies have been done as RCTs<sup>153,154,157</sup> but there may be some need for tightening the evidence base<sup>162</sup>. Also see the Permanent Supportive Housing Evidence-Based Practices website of the US Substance Abuse and Mental Health Services Administration: (<https://store.samhsa.gov/product/Permanent-Supportive-Housing-Evidence-Based-Practices-EBP-KIT-/SMA10-4510>). “Housing First” programmes (which do not require treatment of mental illness or abstinence from drugs and alcohol as a condition of housing) produce improved housing stability<sup>163,164</sup> and result in less time in psychiatric hospitals and lower costs than programmes requiring treatment or sobriety<sup>164</sup>. Studies in Canada undertaken as RCTs have produced strong evidence in support of “Housing First”<sup>153,154,157</sup> and this is now Canadian national policy: (<https://www.canada.ca/en/employment-social-development/programs/communities/homelessness/understanding.html>).

## **6. A holistic, people-centred approach**

The new system needs to be tailored to different needs and situations (for example complex life situations, cultural differences) and designed to be better and easier for people to access, not better and easier for the institutions that provide services. Particularly, we must eliminate disconnected, incoherent services and rather provide a net of resources within reach of all individuals. Crucially, we must ensure a predictable, preferably single, point of contact for services for each individual. This will not only make life easier for those in distress and with the greatest need but should allow synergies in the way in which services are provided: education, supporting benefits, physical health, housing, support at times of crime and violence, etc.

## **7. Police/Courts/Prison**

These are essential in the management of mental distress in the community but they should not be the first tool to be used. Further, to deal with many community mental-health emergencies, we might think of establishing a crisis-response team with a wider set of skills. This team could have a mandate to respond rapidly with appropriate intervention and support when triggered by specific events (e.g., family violence, child abuse) or needs (clear emotional distress). Skills *on call* might include:

- a. Mental health worker;

- b. Tamariki Ora worker;
- c. Other Iwi-based support workers;
- d. Social worker;
- e. Nurse/doctor;
- f. Police;
- g. Teacher;
- h. Sport or other coaches.

A really important distinction for first responders to be able to make in the setting of behavioural turmoil is that between family and social distress on the one hand and mental illness on the other.

## **8. Funding a redesigned mental-health service**

There are a variety of approaches to estimating the cost of funding an improved mental-health programme for New Zealand, which we can apply in more detail as we flesh out our approach. As Layard and others have shown, substantial attention to prevention and the full and supportive treatment of mental illness will, in many cases, pay for itself in the form of productivity that is not lost and welfare benefits that are not claimed<sup>9,14,36,165</sup>. There is some reason for cautious optimism regarding the cost-effectiveness of treatment for psychosis<sup>166-169</sup> and perhaps youth mental health services<sup>170</sup>, but focussed work needs to be done in New Zealand. As Gavin Andrews has pointed out (personal communication to R. Poulton), in the case of cancer, availability of money has allowed researchers and clinicians to make major inroads toward turning lethal diseases into treatable entities; we are not there with mental illness, partly because not enough is known and partly because patients too seldom become partners in the search for cure and management.

## **9. Workforce**

As already noted, we do not have sufficient trained personnel to deal with the burden of mental illness in New Zealand. In the UK, there was a specific and focussed push to remedy the similar huge gap they faced<sup>171-173</sup>. We need to adapt this IAPT (Improving Access to Psychological Therapies) approach to train up an appropriate cadre of professionals in addition to moving toward the use of eBased therapies, as noted above. Again, as already noted, there is a need for further expanding the skills of the workforce – and for some groups expanding the workforce itself – in ECE, primary and secondary teachers, midwives and Plunket staff, Corrections, Work and Income staff. This training and expansion of services needs extensive coordination between the relevant ministries and not only DHBs but also NGOs, Iwi, and other providers. In the end, we should have teams that provide a service net with the capacity to deal with mental illness – and support of mental health – at all levels across New Zealand.

## **10. Evaluation**

The narrative suggests a number of approaches that will need to be further developed between and across agencies. Some are aimed at reducing future

demand by improving mental wellbeing, others at earlier and broader intervention, and still others as issues within the delivery of services to currently diagnosed patients. These interventions will be a mix of well proven approaches from developmental and psychological sciences and others will be more normatively based. They also need in many cases to be merged with current services or will involve change in current services. Accordingly, an adaptive approach must be taken in which both baseline data and continuing evaluation of the direct and indirect effects and costs and benefits of each initiative are seen as essential rather than optional.

## 11. Social investment

The development of the social investment model provides a tool kit that will allow this more expansive and holistic view of mental health to be considered and its evaluation to be continuous. If the social investment model did not exist, it would now have to be invented; indeed, without the policy-research tool of the IDI, the capacities to adopt, evaluate, and modify appropriate preventive programmes and to address issues of premorbid diagnosis would be difficult. The social investment model provides the capacity to explore the cross-domain nature of interventions and their management and evaluation in a way that was not previously possible.

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