Social Policy Evaluation and Research Unit

superu

The Prime Minister's Youth Mental Health Project

SUMMATIVE EVALUATION REPORT

DECEMBER 2016

Our purpose

The purpose of the Social Policy Evaluation and Research Unit (Superu) is to increase the use of evidence by people across the social sector so that they can make better decisions – about funding, policies or services – to improve the lives of New Zealanders and New Zealand's communities, families and whānau.

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Executive summary

Key messages

- All 26 Youth Mental Health Project initiatives were implemented.
- The capacity of youth mental health services increased, and more youth were identified, supported and treated.
- Some youth experienced positive changes in their mental health and wellbeing in the short term, and evidence from overseas and New Zealand studies also indicates that some youth will experience better medium- to long-term life outcomes.
- YMHP delivered a benefit-cost ratio of at least 1.0, and about 1,300 disability-adjusted life years (DALY) were gained, indicating a positive return on investment.
- Some useful tools for comparing and selecting future initiatives were created: $21,000–$30,000 gross economic benefit for each youth who was positively impacted; 31–35 DALY per $1 million spent; and the relative contributions of different components to YMHP as a whole.
- YMHP has operated as an integrated programme at the national level, but less so at the local level.
- There are some things that can be done to improve the effectiveness of YMHP, including: changes to the YMHP system, particularly at the local level; actions to improve the effectiveness of the existing initiatives; taking up opportunities for additional impact; and building the data to inform future decisions.

Introduction

This Summative Evaluation Report is one of three reports published as part of the Phase 2 strategic evaluation of the Prime Minister's Youth Mental Health Project (YMHP). It synthesises the findings and recommendations from the other two reports – a Localities and National Perspectives Evaluation and a Cost-Benefit Analysis – as well as from available evaluations of individual initiatives. All three reports can be downloaded from www.superu.govt.nz.

Why establish the Youth Mental Health Project (YMHP)?

Youth is a period of significant known transitions, including growing from a child to teen to adult. It includes establishing intimate relationships. It includes moving from primary to secondary school, and from secondary school to tertiary study, training or work. Like any other life stage, it is also a time of potentially traumatic events, such as a death in the family, a friend's suicide, an earthquake, or a family break-up. Any of these transitions and events can contribute to a loss of resilience, and lead to mild, moderate or even severe mental health issues.

A growing body of evidence shows that the capabilities that underlie resilience can be strengthened at any age, and this supports YMHP's focus on youth aged 12 to 19 with or at risk of developing mild to moderate mental health issues.

What did YMHP set out to do?

The Prime Minister's Youth Mental Health Project was established as a four-year cross-agency programme in 2012. It consisted of 22 initiatives aimed at improving the mental health and wellbeing of youth aged 12 to 19 with or at risk of developing mild to moderate mental health issues. A further four initiatives were subsequently added, to bring the total to 26. YMHP outcomes were identified as:

- Improved knowledge of what works to improve youth mental health
- Increased resilience among youth
- Better access to timely and appropriate treatment and follow-up
- More supportive schools, communities and health services
- Early identification of mild to moderate mental health issues in youth
- Better access to appropriate information for youth and their families and whānau.

What was the scope of the evaluation?

In 2013, the Ministry of Health, in partnership with the Ministries of Social Development and Education, commissioned Superu to lead a strategic evaluation of **whether**, **how well** and **why** YMHP as a whole was progressing towards the outcomes listed above.
The evaluation was conducted in two phases. The Phase 1 results were published in 2015 as the Formative Evaluation Report and the Research Review Report (both available at www.superu.govt.nz). The Phase 2 results are presented in this Summative Evaluation Report and in a Cost-Benefit Analysis report (conducted by PwC) and a Localities and National Perspectives Evaluation report (completed by Malatest International). These three Phase 2 reports are the final outputs for the strategic evaluation.

From the outset, it was recognised that the summative evaluation would be, in effect, a 'progress report' that evaluated how well YMHP was progressing towards achieving its outcomes. As the evaluation had to be completed when the first four years of YMHP were drawing to a close, it was not going to be possible to measure what long-term changes the project will produce. Instead, we drew on international and New Zealand evidence to estimate what the medium- to long-term outcomes of YMHP would be.

What did YMHP achieve?

The table below provides a summary of progress in achieving the YMHP outcomes set in 2012. These are discussed in the remainder of this Executive Summary and detailed in the main body of this report.

The Phase 2 evaluation reports on YMHP as at June 2016 – many initiatives are ongoing and will affect more youth, adding to the potential benefits of YMHP.

YMHP outcome	Progress towards the outcome as at June 2016
Better access to appropriate information for youth and their families and whānau	• YMHP provided more resources and information, but it may not be enough. • Some people still did not know how to support youth. • Online resources were not enough to support parent-youth relationships.
Early identification of mild to moderate mental health issues in youth	• YMHP increased service capacity. • More youth with, or at risk of, mild to moderate mental health issues were identified, supported and treated.
More supportive schools, communities and health services	
Better access to timely and appropriate treatment and follow-up	
Increased resilience among youth	• Some initiatives showed positive changes in youth mental health and wellbeing in the short term. • Evidence gathered from overseas and New Zealand studies indicated that some of these youth will experience better life outcomes in the medium to longer term.
Improved knowledge of what works to improve youth mental health	• The cost-benefit and cost-utility analyses indicated that YMHP was a worthwhile economic investment. • Drawing on the locality case studies and on evaluations of individual initiatives, we found that national leadership was strong and integrated, while devolved local service delivery was somewhat fragmented. • Targeting those in low-decile schools and Māori and Pacific youth was effective, but other groups (e.g. youth with disabilities) missed out. • Christchurch youth were different from youth in other New Zealand areas and require further support. • Several recommendations were made for steps that would improve the effectiveness of YMHP, and these were categorised as: changes within the system; actions to improve the effectiveness of existing initiatives; taking up opportunities for additional impact; and building the data to inform future decisions.

YMHP increased service capacity

Since it was established in 2012, YMHP successfully implemented all 26 initiatives in its portfolio. As a result, more services and resources were available – and in most cases continue to be available – to identify, support and treat youth with mild to moderate mental health issues.

More youth were identified, supported and treated

As a result of implementing the YMHP initiatives, more youth were identified, supported and treated. We found some evidence of positive change for youth in the short term. Drawing on evidence from overseas and New Zealand studies, we concluded that some of these youth will experience better medium- to long-term life outcomes because of YMHP.

YMHP was a worthwhile financial investment

We carried out a cost-benefit analysis and a cost-utility analysis to assess the fiscal value of YMHP. Based on data from 10 of the 26 initiatives, we found that YMHP delivered a societal or social benefit-cost ratio (BCR) of at least 1.0, meaning that the value of the benefits or outcomes for youth, society and the government's coffers was more than the cost of providing YMHP initiatives. In addition, about 1,300 disability-adjusted life years (DALY) were gained, or approximately 31–35 DALY per $1.0 million spent. The DALY gain demonstrated that YMHP as a whole provided utility or effectiveness for the youth population.

The cost-benefit analysis identified which of the youth mental health system's components delivered the greatest economic value. There are five components:

- Strengthening systems & processes
- Access to appropriate information
- Supportive schools
- Early identification & support
- Treatment & follow-up.

The cost-benefit analysis found that 'Early identification & support' delivered the greatest economic value. While this could imply that future investment in YMHP may be best directed towards initiatives providing early identification and support, it must be remembered that **all components** are integral to the youth mental health system.

YMHP generated a gross monetary economic benefit of $21,000 to $30,000 per positively impacted youth, where 'positively impacted' refers to realised improvements in a youth's mental health or wellbeing. This dollar amount is therefore a measure of the benefit of switching one youth from **having** mild to moderate mental health issues to **not having** mild to moderate mental health issues. This high-level financial indicator provides a benchmark against which we can assess the economic and financial viability of future investment decisions. It implies that any initiative or intervention targeting mental health issues and costing more than $21,000 to $30,000 per positively impacted youth is unlikely to generate a positive economic value.

National leadership was strong and integrated, while devolved local service delivery was somewhat disconnected

We examined the implementation and integration of YMHP, in order to understand what did and did not work. At the national level, we found leadership was strong and integrated. There was evidence that the inter-agency approach was working well, and agencies started working together on other areas outside the scope of YMHP.

At the local level, however, there was much less evidence of integration, with some service fragmentation and disconnection between local providers. Contributing causes were the use of devolved service delivery models and also, for several YMHP initiatives, demands that these initiatives be implemented within two to three years. Schools varied in how well their services were linked within the school and with the community. Primary care providers often found it difficult to make referrals, because they did not know who to refer a youth to, or they encountered limits on capacity. Once they had referred a youth on, there was often a communication breakdown, so that they were not told what happened to the youth in question.

The Youth Service Level Alliance Teams (Youth SLAT) or its equivalent, established in almost all District Health Boards as part of YMHP, may be a means of ensuring that services are better coordinated and more effective. Encouraging more co-located and youth-friendly services would make it easier for youth to access them.

Some targeting of specific populations worked well, but other populations missed out

We examined how well YMHP was targeting vulnerable youth populations, particularly those in decile 1–3 schools, Māori and Pacific youth, and youth not at school. Targeting was effective in reaching decile 1–3 schools and Māori and Pacific youth. We could not assess the effect of YMHP on youth who were not at school or who were attending wharekura. Nor could we readily establish the outcomes for youth for most initiatives, because of challenges in collecting consistent data.

The evaluation highlighted the fact that youth with, or at risk of developing, mild to moderate mental health issues are found in all schools, irrespective of their decile. Middle decile schools (4–7), in particular, appeared to have youth who 'fall through the cracks', as the schools were not entitled to YMHP initiatives and their parents could not always afford to pay for services privately.

International and New Zealand research highlighted the negative impacts of the Canterbury earthquakes on the residents' mental health, and this research was one of the factors leading to initiative #26 being established in 2013 specifically to work with youth in Canterbury. As a result of the initiative, the school-based mental health team has engaged with more than 100 primary and secondary schools. Unfortunately, there has been no monitoring so far of the initiative's reach or impact. Data collected from 3,000 students as part of the locality case studies indicated that Christchurch youth continue to experience worse emotional health than youth in the other places studied, and report more risk factors and fewer protective ones.

We also found other youth populations that were less well-served by YMHP, particularly youth identifying as lesbian, gay, bisexual, transgender or inter-sex (LGBTI), youth with disabilities, and youth experiencing unexpected transitions.

What hindered the Phase 2 evaluation?

The timing of the evaluation and lack of data limited the ability to report on outcomes

While there were some examples of good-quality data collection and reporting, data limitations elsewhere meant we had to estimate the short-term outcomes for some initiatives. In some cases, we could not clearly identify even the outputs from the specific initiative (e.g. the number of youths seen by a service or the extent of their engagement), meaning that the initiative had to be analysed qualitatively in the cost-benefit analysis.

The reasons for the shortcomings in data varied. In some cases no data (or no meaningful data) at all had been collected; in others the initiatives had been quite recently implemented, or the initiative pilot had not yet been completed. In other cases, improved reporting templates had been introduced partway through the four-year YMHP period. While these kinds of data issues are not uncommon in the social sector, it is clear that the situation needs improvement.

It also proved difficult to engage schools in the evaluation, mainly because they faced multiple requests to participate in other evaluations and research projects.

Data was not only limited for YMHP initiatives as implemented in New Zealand; in some cases we also found very little solid evidence in the international literature to support expectations about what outcomes an initiative might deliver.

The System Level Measures Framework could improve data collection and reporting

In April 2016, as part of its 'refresh' of the New Zealand Health Strategy, the Ministry of Health introduced the System Level Measures Framework, an outcomes-based approach to performance measurement developed to guide the delivery of constantly improving health services. The System Level Measures Framework will emphasise measuring the performance of the whole system as well as its component parts.

A System Level Measure (SLM) for youth has been identified and will be implemented in 2017/18. The proposed measure focuses on access and use of services by youth. We recommend MOH consider devising a System Level Measure that is an outcome for youth, as this is what the system is meant to deliver. Access and use would be contributory measures, not outcomes.

We also propose that a simple, validated, outcomes-measurement tool be adopted to use across the board (such as the Kessler-10 or Patient Health Questionnaire-Adolescent). This would greatly assist with building evidence to use in deciding what programmes to offer, which to maintain, and which to discard.

How can we improve the effectiveness of YMHP?

While some of the areas discussed below are canvassed in this Executive Summary, the following recommendations should be read in the context of the full report. More detail about the recommendations is found in section 9.

Ensure long-term outcomes are achieved

Superu recommendations in this area include the following:

- Explore how to better incorporate the strengths-based approach into YMHP, possibly through the Youth SLAT structure.
- Continue cross-agency leadership at the national level.
- Assist with the integration and improvement of local delivery systems and strengthen the interface between schools and providers of health and social services by, among other things, supporting and strengthening the ongoing implementation and operation of Youth SLAT (#5a) or its equivalent, and Youth Primary Mental Health (#3).
- Work to clarify what causes the 'choke points' in the system, particularly in transitions from primary to secondary care.
- Further promote the SPARX e-therapy tool to providers and youth.
- Consider using the System Level Measures Framework to monitor the health of the system.
- Follow through on the reviews that were completed as part of YMHP, particularly guidance counselling (#12), and wellbeing in schools (#11).
- Progress work on co-locating services in schools, possibly through Youth SLAT (or its equivalent).
- Establish a forum or other mechanism for sharing information between DHBs and other providers about what works and about best practice, both at the system level and for providers.

Increase the effectiveness of the existing initiatives

Our recommendations in this area include the following:

- Where evidence indicates that an initiative will contribute to both short- and long-term outcomes, continue to support the initiative to reach its potential. This applies to the following initiatives: School-Based Health Services (SBHS – #1), Youth Primary Mental Health (#3), Youth One Stop Shops (funded outside YMHP, although contracted to provide some Youth Primary Mental Health services), the e-therapy tool SPARX (#4), Child and Adolescent Mental Health Services (CAMHS), Alcohol and Other Drug (AOD) services access and follow-up (#6 and #7), and the use of HEEADSSS (#2 and #1).
- Review the mix of initiatives within and across system components to consider the balance between universal versus targeted, and between prevention and promoting wellbeing versus treatment resources and services.
- Where the evidence is weak or mixed about expected medium- to long-term outcomes, we recommend agencies do a further review of the evidence underpinning some initiatives and consider the relevance of those initiatives within the context of youth mental health.
- Increase the promotion of resources and services already in place through YMHP, as this will generate greater usage and contribute to better outcomes.

Take opportunities for additional impact

Our recommendations in this area include the following:

- Acknowledge that adolescence is a time of high vulnerability, and expand the scope of YMHP to include all youth aged 12 to 19.
- Use the findings from the cost-benefit analysis as 'yardsticks' (e.g. gross economic benefit, DALY and BCRs) for considering new initiatives.
- Review and gain a better understanding of the existing evidence base.
- Target other youth populations in addition to Māori and Pacific, particularly:
  - youth in Canterbury
  - youth identifying as LGBTI
  - youth with disabilities
  - youth who are not at school, particularly those who are NEET (not in employment, education or training), and
  - youth experiencing unexpected transitions.
- Address ongoing stigma-related issues for youth and their families and whānau.
- Increase the focus on resilience and supportive adult relationships, particularly relationships between youth and their parents and caregivers.
- Support, monitor and evaluate innovative tools and approaches.

Build the data to inform future decisions

Our recommendations in this area include the following:

- Adopt and implement the measures in the revised outcomes framework across all sector agencies and providers who work with youth.
- Improve and simplify the collection and reporting of data at all levels, and use new information technology to improve the timeliness, accuracy and completeness of the data collected.
- All agencies to mandate the recording of a unique identifier (either NHI or NSN) for reporting on youth service attendance and short-term outcomes. This will facilitate the monitoring of long-term outcomes using IDI or other such datasets.
- The Ministry of Health to set an appropriate high-level outcome/System Level Measure and contributory measures for youth health (including physical and mental health) and wellbeing, for use in the System Level Measures Framework.
- Work with stakeholders to select one or two short-term mental health and wellbeing outcome measurement tools for use across the sector, and include the tool or tools in the System Level Measures Framework.
- The Ministry of Health to ensure that SBHS, Youth Primary Mental Health, and any other DHB reporting aligns with the System Level Measures Framework. If appropriate, align other social sector reporting with this framework.
- The Ministry of Education to consider data management in the school setting, including the possibility of an omnibus survey.

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Introduction

This report is the culmination of a strategic evaluation of the Prime Minister's Youth Mental Health Project (YMHP). The Summative Evaluation Report is one of three reports published as part of the Phase 2 strategic evaluation of YMHP. It synthesises the findings and recommendations from the other two reports, the Localities and National Perspectives Evaluation report and the Cost-Benefit Analysis report, as well as from available evaluations of individual initiatives. All three Phase 2 reports can be downloaded from www.superu.govt.nz.

The Youth Mental Health Project is a four-year cross-agency programme established in 2012. It consists of 26 initiatives aimed at improving the mental health and wellbeing of youth aged 12 to 19 with, or at risk of developing, mild to moderate mental health issues.

In 2013, the Ministry of Health, in partnership with the Ministries of Social Development and Education, commissioned Superu to lead a strategic evaluation to assess **whether**, **how well** and **why** YMHP as a whole is progressing towards the project's intended outcomes (the outcomes are set out in section 2.2 of this report). The evaluation was conducted in two phases. The Phase 1 results were published in 2015 as the Formative Evaluation Report and the Research Review Report (both available at www.superu.govt.nz). The Phase 2 results are presented in this Summative Evaluation Report and in a Cost-Benefit Analysis report (conducted by PwC) and a Localities and National Perspectives Evaluation report (completed by Malatest International). These three Phase 2 reports are the final outputs for the strategic evaluation.

This report consists of the following sections:

- What did YMHP set out to do and why? (section 2)
- How was the evaluation done? (section 3)
- What did YMHP achieve? (section 4)
- Was YMHP a worthwhile economic investment? (section 5)
- How successful was the implementation and integration of YMHP? (section 6)
- How successful was the targeting of YMHP? (section 7)
- What hindered the Phase 2 evaluation? (section 8)
- How can we improve the effectiveness of YMHP? (section 9).

Readers wanting details of progress towards achieving the six outcomes associated with YMHP should refer to the specific sections identified in Table 1 below.

TABLE 01

Sections in this report addressing progress towards YMHP outcomes

YMHP outcomes	Sections addressing progress towards the outcome
Improved knowledge of what works to improve youth mental health	**Section 5** Was YMHP a worthwhile economic investment? *(This presents the results of the cost-benefit and cost-utility analyses)* **Section 6** How successful was the implementation and integration of YMHP? *(This discusses what did and did not work in implementing and integrating services within YMHP)* **Section 7** How successful was the targeting of YMHP? *(This explains that targeting those in low-decile schools and Māori and Pacific youth was effective, but that other groups missed out)* **Section 9** How can we improve the effectiveness of YMHP?
Increased resilience among youth	**Section 4.3** Evidence suggests more youth will experience better outcomes because of YMHP **Section 4.3.1** Some youth had positive changes in mental health and wellbeing in the short term **Section 4.3.2** Evidence from studies indicates some youth will have better life outcomes in the longer term
Better access to timely and appropriate treatment and follow-up	**Section 4.1** YMHP increased service capacity **Section 4.2** More youth were identified, supported and treated
More supportive schools, communities and health services	
Early identification of mild to moderate mental health issues in youth	
Better access to appropriate information for youth and their families and whānau	**Section 7.2** YMHP provided more resources and information, but it may not be enough **Section 7.2.1** Some people still do not know how to support youth **Section 7.2.2** Online resources not enough to support parent-youth relationships

Readers interested in the detailed reports from Phase 1 and 2 of the evaluation can find them on Superu's website (www.superu.govt.nz).

02

What did YMHP set out to do and why?

Key messages

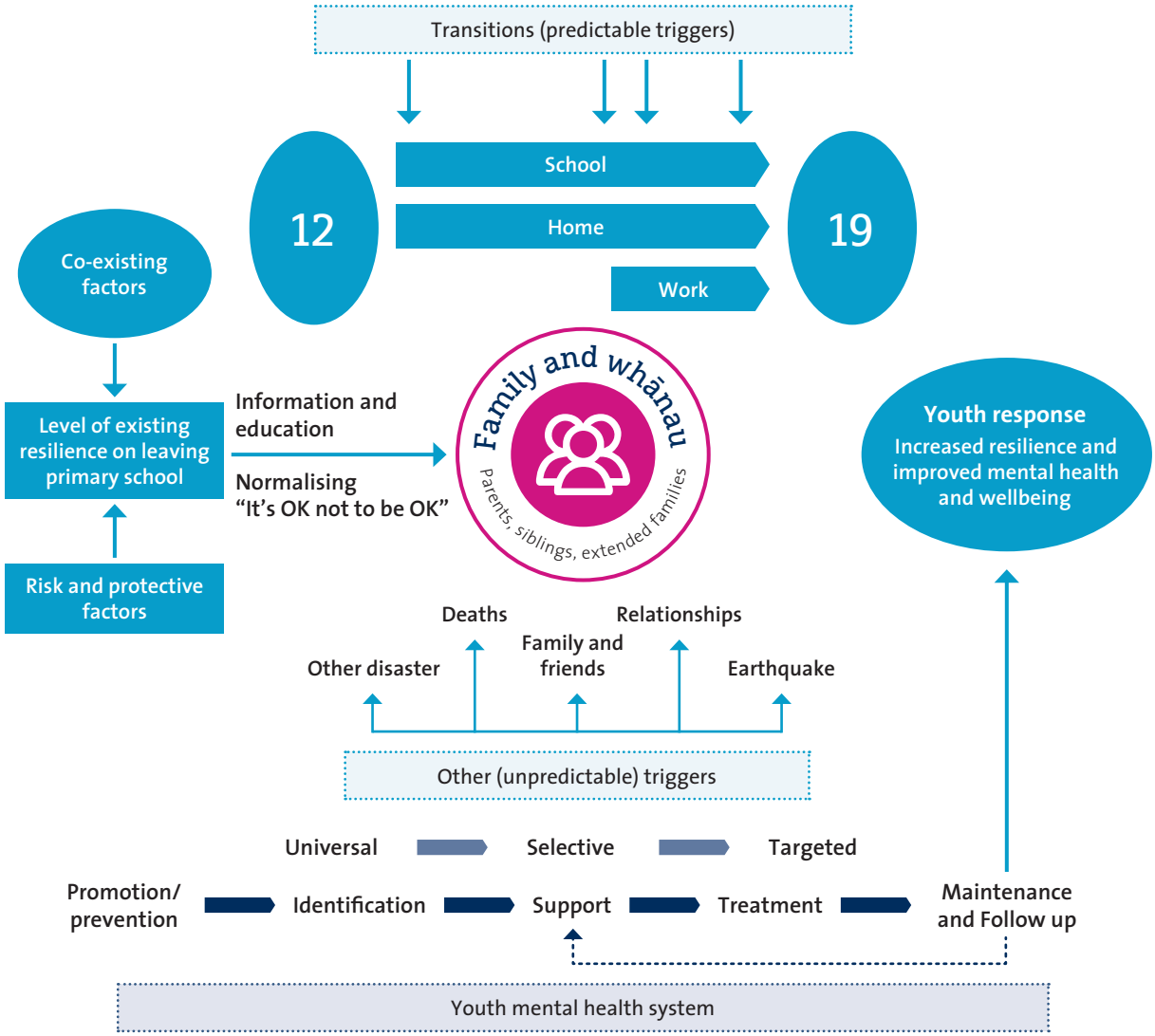
- Adolescence is a period of expected and unexpected life-course transitions.
- Some youth require extra support to cope with adolescent transitions.
- After an extensive review, Gluckman (2011) recommended a primary prevention approach to reducing the morbidity associated with adolescence in New Zealand.
- This recommendation led to the Youth Mental Health Project in 2012, a cross-agency project operating in schools, the health system, families and communities, and online.
- A variety of strategies and initiatives were adopted to deliver six outcomes.
- Initially there were 22 initiatives, but this increased to 26 in year 2 of YMHP.
- YMHP was coordinated nationally by a central cross-agency steering group.
- YMHP was implemented through a devolved local delivery system.

2.1_ Research suggests some youth require extra support to cope with adolescent transitions

Adolescence is a period of extensive psychological and biological development coinciding with expected – and unexpected – life-course transitions associated with increased risk of mental health issues. These transitions include, for example, the shift from primary or intermediate school to secondary school, and leaving school to enter the workforce or tertiary study, as well as other transitions that can occur at any life stage, such as the loss of a close family member or friend (Fox, Southwell, Goodhue, Jackson, & Smith, 2015; Gluckman, 2011). Most youth in New Zealand successfully transition to adulthood but some do not, mainly due to a complex interplay of individual, family and community stressors and circumstances, or 'risk factors' (Fox et al., 2015).

Figure 1 illustrates, for youth aged 12 to 19, the types of transitions that affect a youth's resilience or ability to maintain their mental health and wellbeing, along with the types of responses or support they may need from a youth mental health 'system'.

Figure 1 _ Significant transitions for youth aged 12-19 and their relationship to existing resilience and to available support



In 2009, the Prime Minister asked the Chief Science Advisor, Professor Sir Peter Gluckman, to review and report on the scientific understandings related to the high rate of social morbidity associated with being an adolescent in New Zealand. Gluckman established a taskforce to review the peer-reviewed scientific literature, from both New Zealand and overseas, so as to understand the issues and to identify ways in which New Zealand could do better for its youth. Gluckman's 2011 report, *Improving the Transition: Reducing social and psychological morbidity during adolescence,* delivered several key messages, including the following:

- A significant proportion of youth suffer from depression and other mental health disorders, yet the range of services available to them is inadequate. Given New Zealand's high rate of adolescent suicide and psychological morbidity, priority should be given to addressing this capacity gap and to raising public awareness of the characteristics of youth depression.

- While the issues and their solutions are generic across all of the population, programmes must be developed and delivered in ways that are culturally appropriate for the very different communities in which New Zealand youth live.
- Applying the international and domestic evidence base to develop policies and programmes in this area will lead to better outcomes for our youth.
- A key challenge is to ensure that all programmes are appropriately monitored to ensure that they are effective and cost-effective within the New Zealand context, in order to make better use of scarce public resources to support our youth.
- An evidential approach is not being systematically used in deciding what programmes to offer and which to maintain.
- There is a general lack of critical decision-making in developing, applying and monitoring programmes in the social domains.
- Social, socio-economic and cultural factors mean that there is marked heterogeneity in the risks facing youth across New Zealand. There is a need to distinguish programmes that are appropriate for all youth from those that should be targeted at individuals or families who are particularly at risk.
- Improving outcomes for New Zealand's youth will require sustained effort over multiple electoral cycles. It will require many agencies to consider their priorities and approaches. It will require greater integration of actions across ministries.
- The risks facing youth in New Zealand as they transition from childhood through to adulthood include high rates of youth suicide, cannabis use and harmful alcohol use.
- The scientific literature identifies knowledge gaps where research is needed, including on the role of school-based life-skills education in enhancing outcomes, the role of modern media in altering brain function and behaviour, and the question of which intervention and prevention programmes are effective within at-risk communities in New Zealand.

Among other things, Gluckman and his colleagues (2011) recommended a primary prevention, or 'life-course', approach to reducing the morbidity associated with adolescence. They recommended targeted investment in evidence-based education, prevention and treatment programmes directed towards at-risk children and their families, and investment in addressing the long tail of educational under-achievement. This investment should include culturally relevant interventions, particularly for Māori and Pacific youth. Gluckman also noted that existing programmes aimed at life-skills development at schools require rigorous assessment of their effectiveness, and that additional capacity is needed in New Zealand's mental health workforce, particularly those who are specifically trained to work with children and youth.

2.2_ YMHP is a cross-agency project operating in a variety of settings

Following the Gluckman (2011) report, the Prime Minister directed the Department of the Prime Minister and Cabinet to lead a cross-agency project looking at improving services for youth with, or at risk of developing, mild to moderate mental health issues. Their work led to the development of the Youth Mental Health Project, a package of initiatives designed to build on existing successful interventions and to trial new initiatives for youth in schools, the health system, their families and communities, and online. YMHP was approved by Cabinet in March 2012 [CAB Min (12) 10/9 refers]. At that stage, YMHP comprised 22 initiatives, and another four initiatives were added in the financial year 2013/14. A total of $56.6 million was assigned to YMHP over the four-year period 2012 to 2016. Other funds were also re-allocated to YMHP initiatives from agency baselines.

YMHP built on what was already in place: its initiatives were **complementary** to the existing system delivering mental health support and services to youth.

YMHP relies on joint work by the Ministries of Health, Social Development, Education (in partnership with the Education Review Office) and Te Puni Kōkiri, to deliver interventions effectively in settings relevant to youth, and to improve their mental health and wellbeing. Led by the Ministry of Health, the steering group overseeing YMHP does not include representation from the Education Review Office, but does include representatives from the Department of the Prime Minister and Cabinet, the Treasury, and the Ministry for Pacific Peoples.

The overall aim of YMHP was described as "better mental health and wellbeing for youth, including vulnerable groups at comparatively higher risk of mental health issues, such as Māori and Pacific youth." The outcomes YMHP was intended to achieve were identified as:

- Improved knowledge of what works to improve youth mental health
- Increased resilience among youth
- Better access to timely and appropriate treatment and follow-up
- More supportive schools, communities and health services
- Early identification of mild to moderate mental health issues in youth
- Better access to appropriate information for youth and their families and whānau.

A further expectation was that YMHP would achieve system change through agencies working together, including through sharing information that could then be used to develop policy and deliver new or improved services for youth at risk of poor mental health outcomes.

YMHP adopted a variety of strategies to deliver the outcomes. The services were a combination of:

- universal initiatives, targeted support, targeted treatment and reviews
- 'programme boosts' (expansion of existing services); newly developed and implemented (innovative) services; pilots of services introduced to New Zealand from overseas; and referral pathway reviews and systemic reviews
- initiatives promoting mental health and wellbeing and potentially building resilience; fostering wellbeing (preventative); helping to identify potential issues (diagnosis); and providing treatment and follow-up for those who need it
- initiatives focusing on multiple targets (youth aged 12–19; Māori, Pacific and other vulnerable youth, targeted through decile 1–3 schools; and families, whānau and professionals who support youth)
- initiatives in a variety of settings where youth live, study, work and play (home, school, community and online).

Table 2 shows, for each YMHP initiative: its setting (school, health services, community, online), its focus (universal, targeted support, targeted treatment), and its nature (expansion of existing services, pilots, new services, improved services). The 'youth engagement' initiative (#20) is excluded from this table, as it was implemented across the other initiatives. The initiative saw youth engagement – including surveys, focus groups, interviews, and participation in decision-making panels – across most YMHP initiatives.

TABLE 02

Settings, service types, and focus of YMHP initiatives

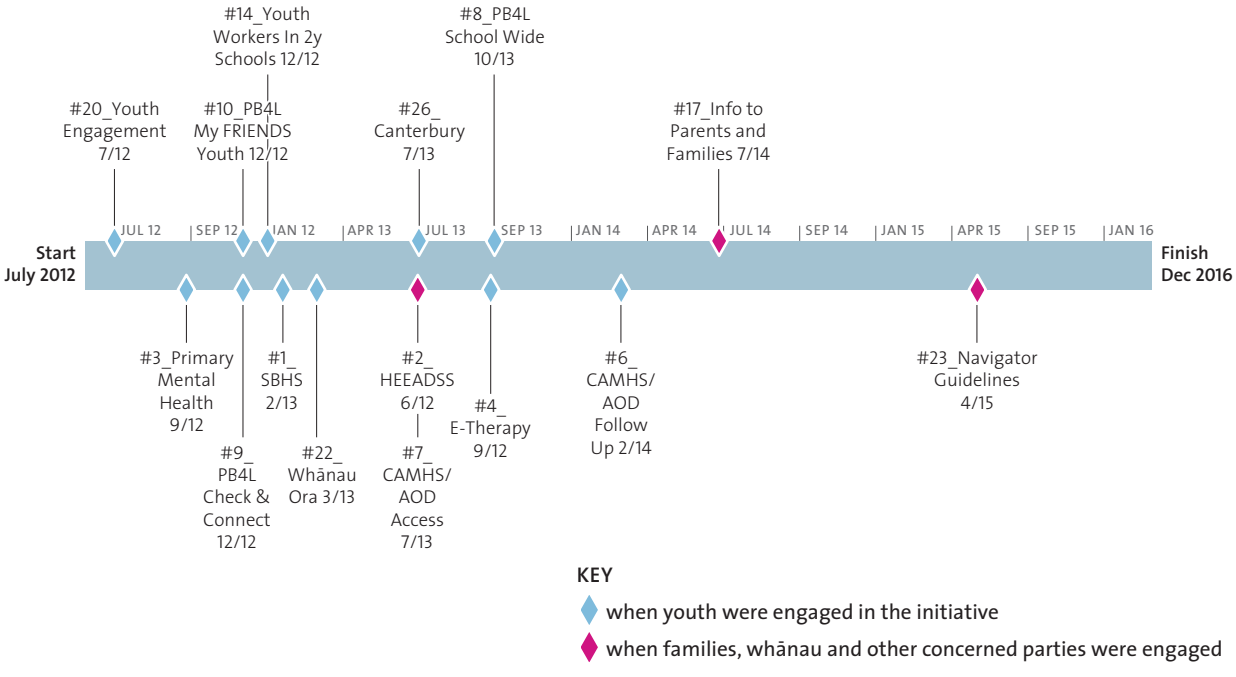
Initiative	Initiative name	Settings	Focus (universal / targeted)	Nature (Expansion of services / Pilot / New / Improved)
Treatment and follow up				
4	E-therapy	Online	Universal / targeted	New
7	CAMHS and AOD Access	Health services	Targeted treatment	Pilot & expansion
3	Primary mental health	Health services	Targeted treatment	Expansion
6	CAMHS and AOD Follow Up	Health services	Targeted treatment	Improved
26	Addressing the emerging youth mental health issues in Canterbury	School	Universal support	New
Early identification and support				
1	School-Based Health Services	School / health	Universal support within targeted schools	Expansion
2	Workforce development – HEEADSSS Wellness Check	School / health	Universal support	New
18	Social support for Youth One Stop Shops	Community	Universal support	Expansion
3	Primary mental health	Health services	Targeted treatment	Expansion
21	Youth mental health training for social services	Community	Universal support	New
5	Primary care responsiveness to youth	Health services	Universal support	Expansions
22	Whānau Ora for youth mental health	Community	Targeted support	Pilot
More supportive schools				
8	PB4L School-Wide	School	Universal (promote wellbeing)	Expansion
10	PB4L My FRIENDS Youth	School	Universal (promote wellbeing)	Pilot
9	PB4L Check & Connect	School	Targeted support	Pilot
14	Youth workers in low decile secondary schools	School	Targeted support	Pilot
26	Addressing the emerging youth mental health issues in Canterbury	School	Universal support	New
Access to appropriate information				
15	Social Media Innovation Fund	Community	Universal support	New
16	Improving the youth friendliness of mental health resources	Community	Universal support	Improved
17	Information for parents, families and friends	Community	Universal support	New
23	Raising awareness, equipping the workforce and providing guidance and support	Support	Targeted support	New

Initiative	Initiative name	Settings	Focus (universal / targeted)	Nature (Expansion of services / Pilot / New / Improved)
Improved knowledge of what works to strengthen systems and processes				
19	Youth referrals pathways review	All	Review	System improvement
24	Developing integrated funding models and connected service delivery	All	Review	System improvement
11	ERO review of wellbeing in schools	School	Review (universal support)	System improvement
12	Improving the school guidance system	School	Review (universal support)	System improvement
25	Co-locating additional social services in schools	School	Review	System improvement
13	Review of AOD education programmes	School	Review	System improvement

Where initiatives were expansions of existing services, they may have originally been implemented with outcomes or targets outside YMHP.

Because initiatives were adopted at different stages of their development (e.g. expanding existing services, developing new ones, or piloting others in the New Zealand context), the roll-out or delivery of the initiatives was staggered. As a result, some initiatives have only been in place a short time, as shown in Figure 2, which makes it difficult to assess short-term outcomes for youth participating in them.

Figure 2 _ Timeline showing when youth or others were actively engaged in the initiative



2.3_ YMHP was implemented through a devolved local delivery system

The inter-agency approach of YMHP was seen as a new way of working across government to deliver integrated planning and decision-making. The implementation and delivery of services at the local level, however, was largely through a devolved delivery system, where there was potentially less integration.

New Zealand has a devolved service delivery system for education, health and, to a lesser extent, social services. In health, 20 District Health Boards (DHBs) are each responsible for providing or funding health services in their districts (MOH, 2014a). The Ministry of Social Development (MSD) delivers social services through Work and Income service centres, as well as through contracting NGOs to deliver other social services. Compared to other OECD countries, New Zealand's school system has a high level of devolution and autonomy. While schools are required to teach within a curriculum, the priorities and values of schools can differ (Ministry of Education, 2010).

Devolved delivery gives local communities the ability to respond to their own needs and priorities, and not be constrained by the issues in other localities (Pedersen, 2002). However, implementing new programmes in a devolved delivery system is complex and takes time because of differences in local systems and local provider networks. Different localities may appropriately prioritise different population groups and this may present challenges for implementing national changes consistently. With less central government involvement and oversight, there is also potential for a system to have less accountability because of different local targets and systems (Londono, Jaramillo, & Uribe, 1999).

03

How was the evaluation done?

Key messages

- Superu was commissioned in 2013 to lead a strategic evaluation to assess whether, how well and why YMHP, as a whole, is progressing towards YMHP outcomes.
- The strategic evaluation was conducted in two distinct phases.
- Phase 1 of the evaluation, completed in 2015, considered the governance and early implementation of YMHP through a research review, the analysis of evaluation and monitoring reports of YMHP initiatives, stakeholder interviews, and a 'value for money' analysis of selected YMHP initiatives.
- Phase 2 assesses the achievements of YMHP, its cost-effectiveness (return on investment), and identifies next steps.
- Phase 2 includes three reports: a Cost-Benefit Analysis; a Localities and National Perspectives Evaluation; and this one, the Summative Evaluation Report, which incorporates the findings and recommendations of those two other reports and synthesises the results from evaluations and monitoring reports from individual initiatives.

Superu was commissioned in 2013 to lead a strategic evaluation to assess **whether**, **how well** and **why** YMHP, as a whole, is progressing towards YMHP outcomes. The strategic evaluation has considered YMHP as an overall programme, rather than evaluating individual initiatives and their effectiveness in isolation.

Given that YMHP is a complex programme with a range of initiatives, a range of settings, and a range of outcomes, it was decided to deliver the strategic evaluation in two distinct phases.

It is important to note that the evaluations focused on the value of YMHP as a complement to the existing youth mental health system, not on the youth mental health system as a whole. Mild to moderate mental health issues have a noticeable but limited effect on people's life outcomes, and consequently the size of the difference made by improving their wellbeing (for example, youth having fewer 'sick days' or days out) is limited. Making these youth well has an impact in the short, medium and long term commensurate with the level of the problem. Mild to moderate mental health issues often resolve themselves without support or treatment, or people can live their lives with them, albeit with a reduced performance capacity (e.g. they may work part-time or earn fewer qualifications). Early identification and support can raise their performance capacity in the short and longer term, and they will experience a better quality of life as a result.

3.1_ Phase 1 considered the governance and early implementation of YMHP

The outputs for Phase 1 of the strategic evaluation included a Formative Evaluation Report and a Research Review, which were published in 2015.

The Formative Evaluation Report presented the following findings about the comprehensiveness and potential value of YMHP as a whole and about its governance and project management:

- YMHP initiatives support all YMHP outcomes to varying degrees and address the promotion, prevention and treatment continuum.
- The nationwide distribution of the initiatives also broadly reflects the distribution and concentrations of deprivation in New Zealand.
- YMHP initiatives have generally been well-designed, and set up with strong governance and reporting arrangements.

Recommendations from Phase 1 of the YMHP evaluation included the following:

- Clarify expectations about how the initiatives should work together as a package to deliver specific outcomes.
- Establish stronger monitoring, reporting and tracking of resources.
- Ensure that YMHP initiatives are culturally responsive, particularly through targeting initiatives at Māori and Pacific youth and ensuring there is adequate uptake.

Agencies worked to respond to these recommendations – for example:

- The logic model and outcomes framework, developed as part of Phase 1, were refined to enhance the understanding of the collective impact of the YMHP initiatives and the synergies across YMHP as a whole (see Appendix A). The measures in the outcomes framework were further refined as part of the Phase 2 evaluation.
- Māori and Pacific outcome measures have been added to the outcomes framework, and other measures will report by ethnicity as well as for the whole youth population.
- Case study locations were selected because they had a high proportion of Māori and Pacific youth and Māori and Pacific providers, to ensure that their voices were heard in the evaluation of YMHP.
- The uptake of initiatives among Māori and Pacific youth was highlighted through monthly and quarterly monitoring, to provide agencies with early indications that these target populations were or were not being reached.
- The Ministry for Pacific Peoples (MPP) has undertaken and supported projects that promote self-esteem, pride, confidence and resilience among Pacific youth, and promote Pacific youth's achievements and excellence. The MPP worked with the joint YMHP communications team to create opportunities to better connect YMHP with the MPP's work.

The Phase 1 evaluation was informed by:

- a research review to identify protective factors and good-practice implementation in youth mental health services
- an analysis of the evaluation and monitoring reports of YMHP initiatives
- a range of key informant and stakeholder interviews about YMHP
- a value for money analysis for selected YMHP initiatives. This focused mainly on whether the allocated expenditure was spent as planned and on how well the initiatives were set up to deliver YMHP outcomes.

3.2_ Phase 2 assesses achievements and return on investment of YMHP and considers 'next steps'

Phase 2 of the YMHP strategic evaluation focused on producing a summative evaluation that achieves the following:

- understands what individual initiatives achieved
- understands what was gained or achieved by developing YMHP as a project rather than as a set of individual initiatives
- understands how YMHP initiatives operate together in the contexts in which youth live, study, work and play
- identifies what is working well and what is not working so well, and what the potential challenges and gaps in services are
- estimates the overall return on investment in YMHP, and the cost-effectiveness of different initiatives or components of initiatives within YMHP
- synthesises the findings and makes recommendations about future investment.

To assist in completing this Phase 2 Summative Evaluation Report, Superu commissioned two studies. The first, the Localities and National Perspectives Evaluation, has assessed the effectiveness and quality of YMHP implementation and the extent to which it is progressing towards the six outcomes. The second study is a Cost-Benefit Analysis. The two studies were supplemented by reviews of the evaluations of individual initiatives. Figure 3 (in section 3.6) illustrates how these different studies work together.

3.3_ The locality studies and national study assessed YMHP implementation and achievements

The implementation and integration of YMHP were assessed largely through a locality-based case study approach. The local perspective is complemented with a national perspectives evaluation and a review of individual initiatives. A particular focus of the evaluation is on the implementation of YMHP initiatives within a devolved local system.

The evaluation involved six geographically-based locality studies that collected data from a range of sources. This included interviews, focus groups, and surveys involving representatives of all youth, communities, schools, health and social service providers, and regional managers of the government agencies involved in YMHP. The national perspective was obtained through interviews with key stakeholders and initiative leads. This was supplemented with material drawn from evaluation reports of individual initiatives, data obtained from agencies, and agency reports.

3.4_ Cost-benefit and cost-utility analyses were used to assess the fiscal value of YMHP

The second study is a cost-benefit analysis (CBA) examining the estimated overall return on investment in YMHP and the cost-effectiveness of different components within YMHP (Treatment & follow-up; Early identification & support; Supportive schools; and Access to information). The cost-benefit analysis measures whether or not the financial benefits of the intervention exceed the costs. The use of CBA is in line with the Government's shift toward performance management and outcome-based evaluation and reporting. CBA provides quantitative data and information on how the project is expected to impact New Zealand's youth and economy. It also highlights data gaps and deficiencies, providing an opportunity to improve data collection practices, which will enhance the social sector's ability to perform more reliable economic evaluations in the future.

The CBA had two inherent (but unavoidable) limitations:

- Irrespective of the availability and quality of data, a number of assumptions had to be made in order to link sections of the causal chain. The lower the data quality, the larger the number of assumptions required. To lessen the subjectivity generated through the use of assumptions and proxy data of the quantitative analysis, the CBA incorporated a sensitivity analysis.
- Certain factors could not be captured or quantified by the cost-benefit analysis. This included the portion of New Zealand's youth enjoying good mental health and wellbeing (usually considered through the counterfactual, but the lack of reliable baseline data meant the counterfactual was an approximation), and also the 'ripple effects' of a given initiative or group of initiatives, where changes occur to individuals other than the specific youth impacted by the initiative.

Sensitivity analysis included a 'low' or conservative scenario, generally based on the most conservative evidence found, and a 'high' or optimistic scenario, documenting the upper value of the evidence found in New Zealand and international research. Further sensitivity testing was applied by varying the value of the discount rate: the standard rate applied was 7%, and sensitivity testing was done with a rate of 3.5%. As at May 2016, 7% is the 'default' rate, as it is specified by the New Zealand Treasury as the social sector real discount rate. This rate is prescribed for social and non-social investments alike.

The alternative 3.5% rate is applied because higher discount rates are often considered inappropriate for social investments, as they drive heavy near-term-weighting, which essentially results in devaluation of the long-term benefits of the investment. This concern is particularly important in the case of social programmes focused on early intervention, such as YMHP, where up-front expenditure is intended to have long-term benefits (i.e. of approximately 10+ years). The 3.5% rate aligns with that used in the health sector by New Zealand's Pharmaceutical Management Agency (PHARMAC), and by the UK Treasury for CBA in the public service.

The 'base case' timeframe used for the analysis is 10 years. This timeframe is based on the assumption that the outcomes or benefits achieved by YMHP are long-term ones, and would therefore be expected to accrue for approximately 10 years. As part of the sensitivity analysis, the effect of using a 20-year timeframe was also evaluated.

As well as cost-benefit analysis, the evaluation also includes cost-utility analysis, which measures the values and impact of interventions in improvements in preference-weighted, health-related quality of life. This has been captured using disability-adjusted life years (DALY), which measure the burden of disease or disability on quality and quantity of life for specific disorders and population groups. The DALY also includes the years of life lost because of early death. The DALY value used for YMHP was 0.0732 DALY per person per year, which is the value specified in the New Zealand Burden of Disease Report (MOH, 2013) for 20–24 year olds with anxiety and depressive disorders.[1] The cost-utility approach focuses on the number of DALY that can be avoided as a result of the intervention for a certain amount of funding, e.g. number of DALY per $1 million expenditure.

The CBA plus DALY provides a measure of cost-effectiveness and utility to youth.

3.4.1 _ Not all YMHP initiatives were assessed quantitatively in the cost-benefit analysis

Because of data and information limitations, the CBA assessed 10 initiatives quantitatively; the remaining 16 initiatives were assessed qualitatively. The 10 initiatives represent 74% ($42.23 million) of the total YMHP funding.

Of the 16 initiatives evaluated qualitatively in the CBA, seven are categorised in the 'Strengthening systems and processes' component of YMHP. These initiatives were evaluated qualitatively in the CBA because the initiatives are mainly research- or review-based, which means it is difficult to identify clear causality between the initiative's activities and youth mental health outcomes. The remaining nine initiatives were excluded from the quantitative assessment in the CBA because of limitations in the quality and availability of data.

The Youth Primary Mental Health initiative (#3) is one of those nine initiatives excluded from the overall CBA because of data limitations. Because of the high proportional cost of this initiative (20% of total YMHP) and its associated ability to strongly skew the results of the overall analysis, a stand-alone quantitative analysis as well as qualitative evaluation was done for this initiative, rather than including it in the CBA of YMHP as a whole. Overall, this decision was made on the basis that the resultant analysis and information would provide greater clarity and transparency.

1 The 20–24 age group is the age group that will see the largest portion of the long-term outcomes of the 12–19 year olds included in YMHP. Of the 11 categories of mental health impacts available in the Burden of Disease report, the one most similar to mild to moderate mental health issues was 'anxiety and depressive disorders'. Note that 'anxiety and depressive disorders' are not fully interchangeable with mild to moderate mental health issues. The other categories reflected more serious mental health conditions such as psychotic disorders, or more specific mental health issues such as eating disorders and drug use.

3.5_ Results from individual initiative evaluations contributed to the Phase 2 evaluation

Eleven of the 26 YMHP initiatives were evaluated, and the findings and data of 10 of those evaluations were incorporated into the Phase 2 evaluation (the 11th was not scheduled to be completed until late 2016). The 10 initiatives included were:

- **Health** – SBHS (#1), YPMH (#3), SPARX (#4), evaluation for one exemplar CAMHS and Youth AOD Access service (#7)
- **Education** – PB4L School-Wide (#8), PB4L Check & Connect (#9), PB4L My FRIENDS Youth (#10), Wellbeing in schools (#11)
- **Other initiatives** – Interim evaluation of Whānau Ora for youth mental health (#22), Common Ground (#17).

The quality of data for the individual initiative evaluations was variable. Only two initiative evaluations included the counterfactual, or a comparison group. The SBHS (#1) evaluation compared mental health and wellbeing outcomes for students at schools with school-based health services to those at schools without such services. The PB4L School-Wide evaluation established a comparator group for one aspect of its analysis, but this was not particularly informative.[2]

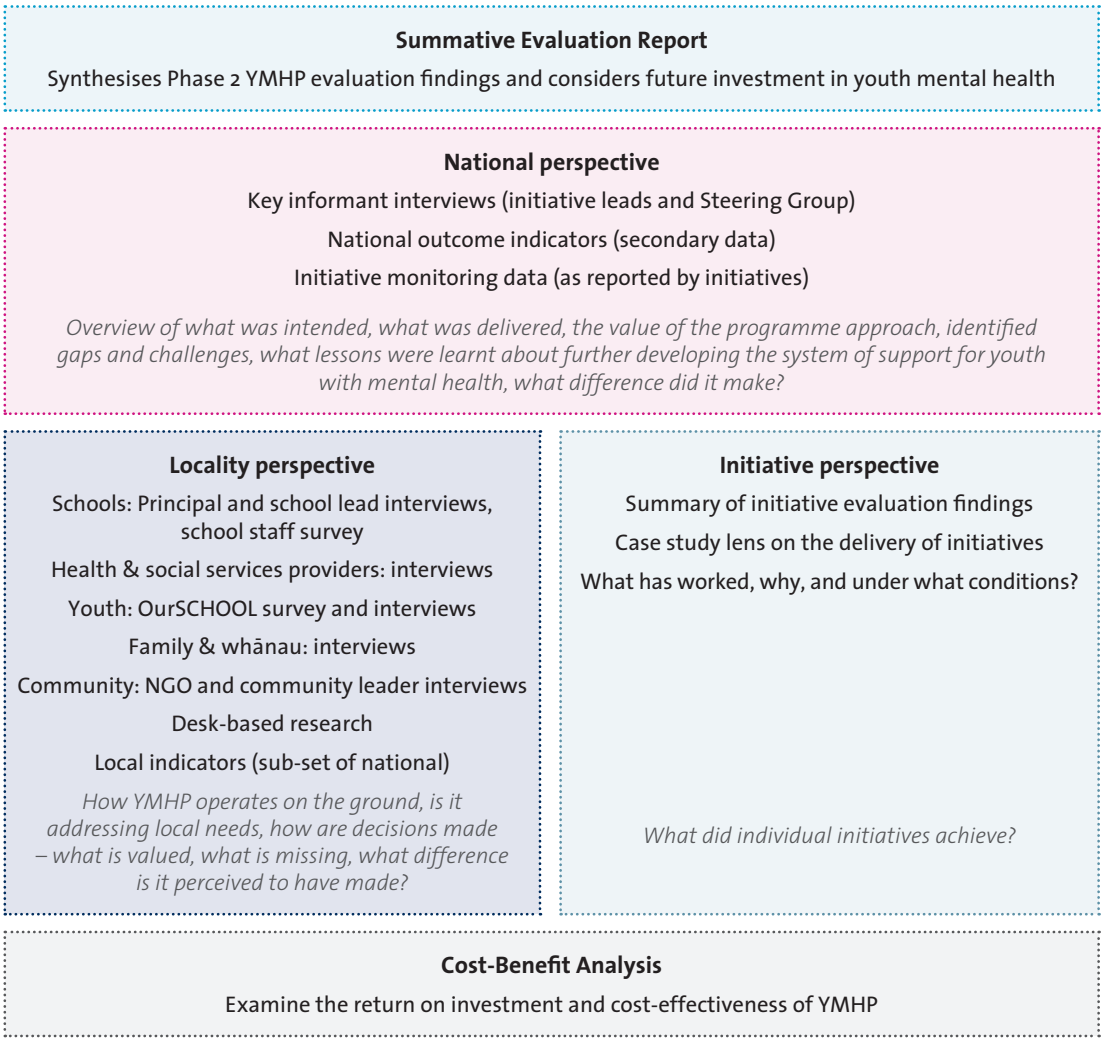
Evaluators found it was not always possible to establish the baseline (starting point) data for an initiative. Nor, in many cases, did evaluations include pre- and post-testing results on which to base the evaluation's assessment of the effectiveness of the particular initiative. Overall, these problems limit the usefulness of the individual initiative evaluations for building the 'evidence database' for the Phase 2 evaluation to assess what aspects of YMHP were working or not working.

2 Boyd and Felgate (2015) compared data for stand-down, suspension, expulsion and exclusion (SSEE) and Office Discipline Referral for PB4L School-Wide schools with a comparison set of non-School-Wide schools. The School-Wide and non-School-Wide schools were not similar, so the SSEE rates and Office Discipline Referral data reflected both the initiative and differences across the schools.

3.6_ The summative evaluation synthesises all YMHP evaluative activities

Figure 3 illustrates how the different studies in the Phase 2 evaluation come together to make up this Summative Evaluation Report.

Figure 3 _ Overview of the Phase 2 evaluation activities and reports



This Summative Evaluation Report, the Localities and National Perspectives Evaluation, and the Cost-Benefit Analysis are available separately on the Superu website (www.superu.govt.nz).

04

What did YMHP achieve?

Key messages

- All 26 initiatives were implemented over the years 2012 to 2016.
- As a result, more services were available to youth in the places where they live, study, work and play.
- Implementation varied by initiative and locality. There was variation in quality of delivery and in the degree to which the initiative was delivered as intended by the initiative's developers.
- More youth were identified as having, or being at risk of, mild to moderate mental health issues, and more were provided with support and treatment.
- Some youth experienced positive changes in their mental health and wellbeing in the short term.
- Evidence from overseas and New Zealand studies indicates that some youth will experience better medium- to long-term life outcomes.
- Progress was made towards achieving the six YMHP outcomes.

Key recommendations (full details in section 9)

- Where evidence indicates that an initiative will contribute to both short- and long-term outcomes, support the initiative to reach its potential. This is true for: SBHS (#1), YPMH (#3), YOSS (funded outside YMHP), SPARX (#4), Youth SLAT (#5a), CAMHS and AOD follow-up (#6), and the use of HEEADSSS (#2 and #1).
- Review or further evaluate those initiatives where analysis has revealed that long-term outcomes may not be achieved and/or that they had high costs compared with benefits. This is true for: CAMHS and AOD services (#7), Whānau Ora for youth mental health (#22), PB4L My FRIENDS Youth, and PB4L Check & Connect (#9) in conjunction with YWiSS (#14).
- Consider whether some initiatives may contribute to outcomes outside the scope of YMHP and, for those that do, consider whether to acknowledge that contribution and remove them from YMHP.

4.1 YMHP increased service capacity

All 26 initiatives in YMHP were implemented over the years 2012 to 2016. The locality studies and the evaluation of the Youth Primary Mental Health initiative (#3) revealed that implementation varied by initiative and locality, and that there was variation in quality of delivery and in the degree to which the initiative was delivered as intended by its developers.

As a result of YMHP, more services were available – and in most cases continue to be available – to identify, support and treat youth with mild to moderate mental health issues. Among other things, the following were implemented through YMHP:

- School-Based Health Services (SBHS) were extended to 44 decile 3 schools and maintained in decile 1–2 schools; Youth Health Care in Secondary Schools, a framework for continuous quality improvement, was developed and released; and the effectiveness of SBHS was evaluated (initiative #1).
- Primary mental health services were expanded to include all 12–19 year old youths across all 20 DHBs (#3).
- The online e-therapy tool SPARX was further refined and implemented (#4).
- Nineteen of 20 DHBs established Youth Service Level Alliance Teams (Youth SLAT – #5a).
- A successful budget bid provided Youth One Stop Shops (YOSS) with ongoing and secure funding of $8.4 million over four years (#5b).
- Check & Connect, a 'Positive Behaviour for Learning' (PB4L) initiative, was piloted using youth workers in 20 low-decile secondary schools in four areas (#9 and #14).
- Another PB4L initiative, My FRIENDS Youth, was piloted with Year 9 students in 26 schools (#10).
- The Common Ground hub was established – it includes, among other things, a website and a free phone line (#17).
- A whānau-centred approach to addressing youth with or at risk of mild to moderate mental health issues was trialled in two locations (#22).
- A school-based mental health team was established in Canterbury. It operates in at least 100 primary and secondary schools (#26).

A complete outline of what was implemented for each initiative is found in Appendix B.

4.2_ More youth were identified, supported and treated

More than 180,000 youth have been reached by the various YMHP initiatives. Of these youth, it is estimated that nearly 1,800 will realise improvements in their mental health and wellbeing. This is a good cost-benefit outcome, with a benefit-cost ratio of greater than 1.0 (see section 5 for more discussion).

The nature of youth participation in the initiatives varied considerably, ranging from being a student in a classroom where PB4L My FRIENDS Youth was being taught, to being a patient receiving a package of care in a GP's office, to accessing and completing modules of the SPARX e-therapy tool, to participating in a Lifehack weekend to co-create social media projects that help youth solve everyday problems in innovative ways.

Examples of how youth participated in YMHP initiatives include:

- Nearly 1,300 New Zealand-based professionals have completed the online elearning module for HEEADSSS (Home, Education/Employment, Eating, Activities, Drugs and Alcohol, Sexuality, Suicide and Depression, Safety Assessment) and have delivered over 9,000 HEEADSSS assessments to Year 9 students, where HEEADSSS is administered through school-based health services. In addition, community-based primary health professionals have done HEEADSSS assessments with youth in their practices (initiatives #2 and #1).
- Approximately 13,000 youth per year (since 2013/14) were seen through Youth Primary Mental Health services (#3).
- 4,160 youth registered on the SPARX website (#4).
- Approximately 125,000 students in 194 secondary schools engaged with the PB4L School-Wide initiative (#8).
- 319 students who were disengaged, or at risk of disengaging from school were mentored through Check & Connect (#9 and #14).
- 526 youth attended more than 45 Lifehack events (#15).
- 40 youth and their whānau or aiga engaged with the Whānau Ora approach (#22).

Details of the number of youth reached or other relevant outputs for each initiative are found in Appendix B.

4.3_ Evidence suggests more youth will experience better outcomes because of YMHP

4.3.1 _ Some youth had positive changes in mental health and wellbeing in the short term

A lack either of baseline information or monitoring data, or both, limited our ability to identify exactly how many youth were reached by some initiatives, as well as their short-term outcomes. In some cases, YMHP initiatives had only been in place for a very short time, and this prevented any reporting on short-term outcomes.

For the most part, therefore, we obtained information about short-term outcomes from evaluation reports of individual initiatives. These suggest positive results, as follows:

- The evaluation of SBHS (#1) found that having high-quality SBHS meant there was less depression, lower suicide risk, better sexual health practices, less binge drinking, and better school engagement by students in those schools. ('High-quality' SBHS means having on-site staff who are well-trained in youth health, with sufficient time to work with students and to perform tasks like routine HEEADSSS assessments, e.g. more hours of health professional time per week per 100 students.)
- The evaluation of SPARX (#4) reported that by December 2015, about 400 youth had completed four SPARX modules. For 44% of those 400 youth, doing four modules was enough for them to go into 'remission' and experience better mental health and wellbeing.
- Evaluation of one exemplar service for alcohol and drug and co-existing problems (initiative #7) found that 35% of youth created a wellbeing treatment plan. Between 15% and 33% had completed their mental health goals (e.g. employment, reduced psychological disturbance, or reduced substance abuse) at the time of reporting.
- In an interim evaluation completed in 2014, parents and caregivers participating in the Whānau Ora youth mental health initiative (#22) reported that they felt empowered to advocate for themselves and their youth, and had knowledge and skills to work with services, as well as succeeding in addressing their more basic needs of housing, safety and food.
- Evaluation of PB4L School-Wide (#8) stated that coaches and curriculum leaders reported an improved school culture, which was partially reflected in the student data.
- Evaluation of My FRIENDS Youth (#10) reported shifts in students' ability to manage their feelings, to think about other students' feelings, and to deal with being hassled or bullied (based on pre- and post-assessment surveys completed by students). 57% of Māori students and 62% of Pacific students agreed or strongly agreed that they used the strategies from the PB4L My FRIENDS Youth, which was higher than for the New Zealand European students (55%).
- Evaluations of Check & Connect (#9) and Youth Workers in (Low-Decile) Secondary Schools (#14) found that 73% of students reported getting better results and improvements in self-management, communication and confidence, as well as more support from school, home and friends.
- In an evaluation survey, families and professionals alike agreed that Common Ground (#17) was a trusted and quality way of accessing information, advice and support.

- In relation to youth engagement (initiative #20), agency-based initiative leads who were interviewed as part of the Phase 2 evaluation commented on the valuable insights that youth brought to the discussion table. They said the youth have generated ideas and opinions that would not have occurred to the adults.

Where we were not able to identify YMHP-measured short-term outcomes for youth, we extracted this information from the evidence in New Zealand and international literature, as indicated in Appendix B.

4.3.2 _ Evidence from studies indicates some youth will have better life outcomes in the longer term

The Phase 2 evaluation was completed as YMHP was scheduled to be drawing to a close in June 2016 (YMHP has recently been extended for six months to December 2016). This means that there was no opportunity to observe or document medium- or long-term life outcomes associated with the benefits of YMHP initiatives.

Therefore, in order to complete the cost-benefit analysis and consider the return on investment, PricewaterhouseCoopers (PwC) consulted with youth mental health experts and drew up lists of expected short-term outcomes and medium- to long-term outcomes associated with improvements in youth mental health and wellbeing. They reviewed the literature to find evidence that YMHP initiatives had associations with the listed short- and medium-term impacts, such as staying in school and completing secondary school. PwC then linked those short-term impacts to medium- to long-term outcomes, such as increased earnings and employment.

Of the medium- to long-term outcomes that are thought to result when youth mental health improves, the outcomes and their values shown in Table 3 below represent those that:

- are supported by adequate data and information about the causal connection between improved mental health and the outcome described, and therefore give confidence that more youth will experience better life outcomes as a result of YMHP
- are closely linked to the outcomes of the YMHP component or initiative, and
- have clear monetary values for government benefits or private benefits.

The benefit values used are the average cost or savings per positively impacted youth with mild to moderate mental health issues. They were determined using the best available research and statistics about the economic outcomes of youth mental health. While the evidence is reasonably strong, in most cases the effect size – and therefore the benefit value – is quite small, in part because the mental health issues being addressed are mild to moderate. Furthermore, as can be seen in Table 3, the predominant economic benefits accrue to the individual as private benefits, rather than being public or government benefits, such as reduced welfare spending and reduced hospital or other medical care. PwC's Cost-Benefit Analysis report (PwC, 2016) has the full discussion of the evidence gathered and the calculations used.

Appendix B of this Summative Evaluation Report shows how the medium- to long-term outcomes align with each YMHP initiative.

TABLE 03

Medium/long-term outcomes, value, and contributing YMHP components

There is moderate/ moderate-excellent evidence to indicate that a reduction in either symptoms of anxiety or depression will lead, in the medium- to long-term, to:	How these benefits were valued in the cost-benefit analysis	YMHP components contributing to long-term outcome			
		Treatment & Follow up	Identification & Support	Supportive schools	Information
Reduced prevalence of clinically diagnosed mental illnesses	1.34 times more likely to be on welfare if had 1-4 depressive episodes in youth	■	■	■	■
	Employment rates for a youth without moderate mental health issues is 78.8% full-time employment and 9% part-time employment. This is 69.5% and 9.6%, respectively, for those with moderate mental health issues	■	■	■	■
	Youth with mild to moderate mental health issues cost primary mental health services $240 per person per year	■	■	■	■
Increased overall life satisfaction rating	Youth aged 20-24 with reduced/treated anxiety and depressive disorders gain 0.0732 Disability Adjusted Life Years per person per year	■	■	■	■
Reduced number of youth suicides	Youth aged 20-24 with reduced/treated anxiety and depressive disorders gain 0.0732 disability-adjusted life years per person per year. The DALY is made up of years of life lost as well as years of life disabled	■	■		
Reduced cases of alcohol and substance abuse (including smoking)	Reduced social cost of alcohol and drug use harm of $1,713 per person per year	■	■		
Increased percentage of youth achieving NCEA Level 2 or higher	The difference between PAYE paid by those with and those without a lower secondary school qualification is $709 per year			■	
	The difference between after tax income earned by those with and without a lower secondary school qualification is $3,035 per person per year			■	
Reduced bullying at school	Reverse causality included: Of those students experiencing chronic bullying, 18.75% had improved mental health due to reduced exposure. There was conflicting evidence on the impact of mental illness on being a bully			■	
Lower youth unemployment rate (increased employment)	The difference between after-tax income earned by those with mild mental health issues and not is $3,022 per person per year			■	
	The difference between PAYE paid by those with mild mental health issues and those without is $602 per year	■	■	■	■
Reduced number of youth receiving welfare benefits	$376 welfare costs per person per year (3.24% welfare liability) is avoided when avoiding youth mental health issues	■	■	■	■
Reduced number of self-reported self harm incidents	Excluded: no direct information about the monetary costs associated with these outcomes was found				
Reduced number of youth pregnancies	Excluded: To avoid potential double counting, as the expected economic benefits mirror those of reduced clinical mental health diagnoses				
Lower number of youth not in employment education or training (NEET)	*Combined education and employment measure – not assessed separately*				

The following potential medium- to long-term outcomes, which are sometimes considered to be linked with reductions in symptoms of anxiety or depression, were excluded because of limited and/or conflicting evidence:

- increased social contact with family and friends in another household
- reduced numbers of youth who report feeling lonely
- increased youth engagement, youth functioning or social connectedness in school
- reduced youth offending or re-offending.

Some New Zealand evidence showed that low self-esteem in adolescence led to increased adult offending (Trzesniewski et al., 2006). However, without self-esteem data to use for baselines and for measuring programme impact, it was not possible to use this research in the evaluations.

Another potential long-term outcome identified, 'Increased number of youth undertaking tertiary education and training', was excluded. PwC had identified moderate-excellent evidence specific to New Zealand youth that, after controlling for confounding factors, there was no proof that improving youth mental health has an impact on tertiary education achievement (Fergusson, Boden, & Horwood, 2007; Gibb, Fergusson, & Horwood, 2010).

In the cost-benefit analysis, the better life outcomes are assumed to occur over a 10-year period, as youth transition out of secondary school and into young adulthood. No academic research reviewed by PwC showed benefits being sustained for a longer period.

4.4_ YMHP's achievements indicate progress towards realising YMHP outcomes

Table 4 below summarises the progress in achieving the YMHP outcomes set in 2012.

TABLE 04

Progress towards achieving YMHP outcomes

YMHP outcome	Progress towards the outcome as at June 2016
Better access to appropriate information for youth and their families and whānau	• YMHP provided more resources and information, but it may not be enough. • Some people still did not know how to support youth. • Online resources were not enough to support parent-youth relationships.
Early identification of mild to moderate mental health issues in youth	• YMHP increased service capacity. • More youth with, or at risk of, mild to moderate mental health issues were identified, supported and treated.
More supportive schools, communities and health services	
Better access to timely and appropriate treatment and follow-up	
Increased resilience among youth	• Some initiatives showed positive changes in youth mental health and wellbeing in the short term. • Evidence gathered from overseas and New Zealand studies indicated that some of these youth will experience better life outcomes in the medium to longer term.
Improved knowledge of what works to improve youth mental health	• The cost-benefit and cost-utility analyses indicated that YMHP was a worthwhile economic investment. • Drawing on the locality case studies and individual initiative evaluations, we found national leadership was strong and integrated, while devolved local service delivery was somewhat fragmented. • Targeting those in low-decile schools and Māori and Pacific youth was effective, but other groups (e.g. youth with disabilities) missed out. • Christchurch youth were different from youth in other New Zealand areas and require further support. • Several recommendations were made to improve the effectiveness of YMHP, which were categorised as: changes within the system; actions to improve the effectiveness of existing initiatives; taking up opportunities for additional impact; and building the data to inform future decisions.

The Phase 2 evaluation reports on YMHP as at June 2016 – many initiatives are ongoing and will affect more youth, adding to the potential benefits of YMHP.

05

Was YMHP a worthwhile economic investment?

Key messages

- Of the more than 180,000 youth reached by YMHP, approximately 1,800 were experiencing (or will experience) long-term improvements in their mental health or wellbeing.
- Based on the 10 initiatives that could be included in the quantitative cost-benefit analysis assessment, YMHP achieved a social benefit-cost ratio of 1.0 to 1.6 over a 10-year timeframe – that is, the benefits of YMHP exceeded the costs.
- The cost-utility analysis estimated that about 1,300 disability-adjusted life years (DALY), or 31–35 DALY per $1 million spent, were gained by youth involved in YMHP.
- YMHP generated a $21,000 to $30,000 gross economic benefit per positively impacted youth. ('Positively impacted' means they realised long-term improvements in their mental health and wellbeing.)
- Of the five YMHP components (Strengthening systems & processes; Access to appropriate information; Supportive schools; Early identification & support; Treatment & follow-up), 'Early identification and support' delivered the most economic value.

Key recommendations (full details in section 9)

- Improve and simplify the collection and reporting of data, including on outcomes, as this would strengthen the cost-benefit and cost-utility analyses.
- As the quality and completeness of YMHP data improves, consider repeating the cost-benefit and cost-utility analyses.

Having considered the impact of each initiative on youth and their families and whānau, a cost-benefit analysis (CBA) was carried out to examine the estimated overall return on investment of YMHP and the cost-effectiveness of particular YMHP components (Treatment & follow up; Early identification & support; Supportive schools; and Access to appropriate information). The cost-benefit analysis was prepared while many YMHP initiatives were still in progress, i.e. before the medium- to long-term outcomes or benefits have been realised for the individuals involved. The evaluator, PwC, used academic research to estimate the likelihood of these benefits occurring.

As explained in section 3.4.1, because of data and information limitations only 10 of the 26 initiatives could be included in the quantitative assessment of the components and in the benefit-cost ratio calculations for YMHP in the CBA. These 10 initiatives together represent 74% ($42.23 million) of YMHP's total funding. Fifteen of the remaining 16 initiatives were assessed qualitatively in the CBA. The final initiative, the Youth Primary Mental Health initiative (#3), had a separate quantitative and qualitative assessment in the CBA, and was not included in the main CBA.

The outcomes of the cost-benefit analysis and cost-utility analysis are described in the sections that follow.

5.1_ YMHP delivered a benefit-cost ratio of at least 1.0 and about 1,300 disability-adjusted life years

Of the more than 180,000 youth reached by YMHP, approximately 1,800 were (or will be) positively impacted. ('Positively impacted' means there were long-term improvements in the individual's mental health or wellbeing.)

The improved mental health and wellbeing of the 1,800 youth was calculated as delivering a societal or social benefit-cost ratio (BCR) of approximately 1.0 to 1.6 over 10 years, although some initiatives generated very little value themselves. A BCR greater than 1.0 means the value of the long-term benefits or outcomes for youth, society and government coffers exceeded the cost of providing YMHP initiatives in the shorter term.

If the estimated outcomes and costs of the Youth Primary Mental Health initiative (#3) were included in the BCR calculation, the BCR would be greater than 2.0.

In addition, we calculated that a total of 1,286 to 1,477 disability-adjusted life years (DALY) will be generated in the same 10-year timeframe.

5.2_ YMHP generated a gross monetary economic benefit of $21,000–$30,000 per positively impacted youth

Across the entire YMHP and over a 10-year timeframe, the gross economic benefit per 'positively impacted' youth is approximately $21,000 at a 7% discount rate[3] and $30,000 at a 3.5% discount rate. This dollar amount is a measure of the benefit of switching one youth from **having** mild to moderate mental health issues to **not having** mild to moderate mental health issues.

These high-level financial indicators provide a valuable benchmark against which to assess the economic and financial viability of future investment decisions. The indicators imply that any initiative or intervention that costs more than $21,000 to $30,000 per positively impacted youth is unlikely to generate positive economic value.

However, there may be compelling non-financial reasons to invest in an initiative that does not generate positive **economic** value. For example, the New Zealand Government had a moral duty to support and invest in those who were negatively impacted by the Canterbury earthquakes, irrespective of any potential economic benefit or loss associated with this investment.

3 As at May 2016, 7% is the 'default' rate, as it is specified by the New Zealand Treasury as the social sector real discount rate. This rate is prescribed for social and non-social investments alike.

5.3_ YMHP generated 31–35 disability-adjusted life years per $1.0 million spent

Across the entire YMHP and over a 10-year timeframe, the project generates 31 DALY gained per $1.0 million spent in a 'low' scenario and 35 DALY per $1.0 million spent in a 'high' scenario.

To understand these results, it is useful to make comparisons with other measures of the value of life or life-years. Unfortunately, direct comparison is difficult; DALY are used to evaluate some interventions but not others. Another metric, similarly focused on understanding the value of a year of life, is quality-adjusted life years (QALY). QALY are a measure of a person's gain in number of years of life and quality of life. PHARMAC reports on the number of QALY for their investments each year. In 2014, they reported that they achieved 28 QALY per $1.0 million spent – that is, every $1.0 million supported an extra 28 years of life, adjusted for the quality of life for those years. PHARMAC uses that QALY figure as a general measure – it does not relate specifically to pharmaceuticals that are related to mental health issues.

We can also compare these DALY results with international cost-utility results. Dalziel et al. (2008) is an Australian-based literature review of cost-utility studies that finds the median cost per QALY/DALY of $30,000 in 2005 Australian Dollars. This is equivalent to 25 QALY/DALY per $1.0 million spent when translated to equal terms (Dalziel et al. 2008; RBNZ 2016a; RBNZ 2016b).

As a cost-utility analysis tool, the DALY shows that an initiative, or group of initiatives, has utility for the intended participants (in this case, youth), and may be an essential contributing factor for the remaining initiatives to work. This is particularly relevant for (school-based) education initiatives that may act as a 'conditioning factor' and contribute mental resilience, e.g. as a useful bridge to treatment, by creating greater acceptance, awareness and knowledge of mental health issues.

5.4_ The 'Early identification and support' component generated the most economic value

Economic benefits were driven through either reaching a large number of youth (i.e. high coverage) or achieving a high rate of positive mental health outcomes (i.e. high effect size), while also minimising costs. The interaction between these three variables dictated the cost-effectiveness of a programme. Table 5 shows that 'Early identification & support' delivered the most economic value of the five YMHP components (Strengthening systems & processes; Access to appropriate information; Supportive schools; Early identification & support; Treatment & follow-up).

YMHP 'Early identification & support' initiatives were characterised by moderate effect size (ability to achieve targeted mental health and wellbeing outcomes effectively), moderate coverage (number of youth reached), and moderate costs (total amount of money spent on YMHP component). It had a benefit-cost ratio (BCR) of 2.1–3.0.

TABLE 05

Economic evaluation of YMHP components

(Medium blue rows highlight the initiatives included in the quantitative evaluation)

Initiative	Initiative name	Funding ($m) 2012/13 to 2015/16	Effect size (weighted avg %)	Coverage (# of youth reached)	Societal BCR (inc public & private benefits)	Quality of Life outcome (DALYs per $1m spent)
	YMHP as a whole (10 initiatives)	**48.1**	**1%**	**181,000**	**1-1.6**	**31-35**
Treatment & follow up						
4	E-therapy	2.68	19%-21%	1,500	0.7-1.1	22-24
7	CAMHS & AOD Access	7.17				
3	Primary mental health	11.3	4%-5.5%	25,000	2.3-3.9	69-88
6	CAMHS & AOD Follow Up	0.4				
26	Addressing the emerging youth mental health issues in Canterbury	baseline				
Early identification & support						
1	School-Based Health Services	10.87	2-2.6%	41,000	2.1-3.0	61-69
2	Workforce development – HEEADSSS Wellness Check	0.2				
18	Social support for Youth One Stop Shops	0.6				
3	Primary mental health	as above				
21	Youth mental health training for social services	baseline				
5	Primary care responsiveness to youth	0.5				
22	Whānau Ora for youth mental health	0.48				
Supportive schools						
8	PB4L School-Wide	6.96	<0.5%	139,000	0.6-0.9	18-22
10	PB4L My FRIENDS Youth	1.23				
9	PB4L Check & Connect	1.67				
14	Youth workers in low decile secondary schools	8.65				
26	Addressing the emerging youth mental health issues in Canterbury	baseline				
Access to appropriate information						
15	Social Media Innovation Fund	2.0	5%-10%	520	0.3-0.8	9.6-19
16	Improving the youth friendliness of mental health resources	baseline				
17	Information for parents, families & friends	1.0				
23	Raising awareness, equipping the workforce & providing guidance & support	baseline				

By contrast, the remaining components were assessed as follows:

- The 'Treatment & follow-up' component, excluding the Youth Primary Mental Health initiative (#3), had a high effect size, low coverage, moderate cost, and a BCR of 0.7–1.1.
- Based on the best available data on reach (number of youth seen) and an incomplete understanding of impact (which made the calculated BCR more doubtful), the Youth Primary Mental Health initiative (#3) had moderate coverage, high cost, low to moderate effect size, and a BCR of 2.3–3.9.
- The 'Supportive schools' component had a low effect size, high coverage, high cost, and a BCR of 0.5–1.0.
- Analysis of the 'Access to appropriate information' component was very weak, as only one initiative (the Social Media Investment Fund) could be included.
- The 'Strengthening systems & processes' component could not be assessed quantitatively, as it consisted of a series of reviews and evaluations.

While the analysis could generally be said to indicate that future investment in YMHP may be best directed at initiatives providing early identification and support, it must be remembered that all components are integral to the youth mental health system. It is therefore not reasonable to remove a component completely and expect to achieve the same mental health, wellbeing and economic outcomes. The cost-utility analysis, incorporating the DALY measure, is a testament to this fact.

5.5_ YMHP provides greater private economic benefits than government ones

YMHP – and particularly the 'Early identification & support' component – delivers greater private economic benefit than government benefit. The allocation of benefits is estimated to be about 70% private and 30% public.

In general, this means that youth participating and benefiting from the project will be personally better off in the long term, while the government's future financial position will receive a smaller benefit. A similar relationship has been found in the United States, where the Washington State Institute for Public Policy (2012) determined larger impacts for the participants than for the taxpayer (or the government) in cost-benefit analyses of cognitive behavioural therapy for children and adolescents with depression or anxiety or experiencing trauma.

It is important to note that YMHP was designed to achieve individual outcomes and improvements for this vulnerable youth population, rather than to generate future government savings.

Furthermore, all quality of life benefits measured in DALY represent private increases in youth wellbeing.

06

How successful was the implementation and integration of YMHP?

Key messages

- Leadership of YMHP is strong and integrated at the national level, with a collective approach to problem-solving.
- Implementation varied by locality, as different systems and/or processes were in place to plan, set up and deliver expanded or new youth primary mental health services in the community.
- Devolved local service delivery models and multiple demands meant services were sometime fragmented and service providers were not well linked together.
- Schools varied in how well they promoted and supported youth mental health and wellbeing.
- School health services, guidance and counselling services, and pastoral care sometimes had little connection with community-based services.
- Early identification of youth requiring support or treatment was facilitated by the use of HEEADSSS assessments.
- However, there appeared to be 'choke points' in referring those youth onwards: it could be that referrals are administratively complex and/or that they are hampered by unclear referral pathways or lack of available services.
- Beginning in 2014/15, Youth Service Level Alliance Teams (Youth SLAT) or their equivalents have been established by 19 of 20 District Health Boards to improve the responsiveness of primary care to youth and to coordinate the provision of services and funding.

Key recommendations (full details in section 9)

- Make changes within the system to ensure that long-term outcomes are achieved.
- Continue cross-agency leadership at the national level.
- Enhance the role and authority of Youth SLAT (or its equivalent) to integrate services more effectively at the local level and to achieve YMHP outcomes.
- Encourage co-located and youth-friendly services, as this would increase youth access as well as the effectiveness of services.
- Within schools, follow through on the reviews that were completed as part of YMHP, particularly guidance counselling (#12) and wellbeing in schools (#11)

6.1_ Leadership is strong and integrated at the national level

YMHP has been led by an effective steering group that is itself led by MOH, with members from the Department of the Prime Minister and Cabinet (DPMC), the Treasury, MOE, MSD, the Ministry for Pacific Peoples (MPP), and Te Puni Kōkiri (TPK). The steering group has developed a strong collective approach to problem-solving, which saw the preparation of a successful budget bid for sustainable YOSS funding (for a four-year period) in 2014, as well as establishing initiative #26 in Christchurch to respond to youth needs identified following the earthquakes. The collective approach has extended beyond YMHP: for example, MOH, MOE and MSD have worked together on a response to youth with foetal alcohol syndrome, and they are agreed that this would not have happened before YMHP.

A project team supported the steering group and also had a strong inter-agency focus. Their work was hampered by changes in personnel and by the fact that, as some initiatives were completed, initiative leads withdrew from the team, and so project inter-connections were lost. The challenge is to develop a governance system that can accommodate changes and maintain the system connections and knowledge.

The steering group established a communications strategy and an inter-agency communications group, who meet regularly. The communications group is seen as an effective way of promoting the youth mental health initiatives and of communicating agencies' responses to evaluation findings.

6.2_ Devolved service delivery models led to some fragmentation at the local level

The collaboration that was seen between central agencies was not as well-developed in the localities studied as part of the Phase 2 evaluation, or in the separate evaluation of the Youth Primary Mental Health initiative (#3). Stakeholders were aware of particular youth mental health **initiatives** affecting their sectors, but many were not aware of YMHP itself. That said, a majority noted an increased awareness of youth mental health. Several key messages such as 'Every door is a right door', 'No one size fits all', and the need for multiple interventions in multiple settings and domains were repeated by providers in each locality.

Because of the devolved service delivery, implementation varied by locality, as different systems and/or processes were in place to plan, set up and deliver expanded or new youth mental health services in the community. This was particularly evident in the health services space, where, in the first six to 12 months of YMHP, DHBs were tasked with implementing several initiatives almost simultaneously, including:

- completing a stocktake of primary care youth-focused services
- (#1) expanding SBHS to decile 3 schools, as well as maintaining SBHS in decile 1 and 2 schools (the roll-out was completed on time in June 2016)
- (#3) expanding primary mental health services to youth aged 12–19 (most had only offered these services to 18+)

- (#7) agreeing on phased waiting time targets with the Ministry of Health and achieving better integration of Child and Adolescent Mental Health Services (CAMHS) and Alcohol and Other Drug (AOD) services (and then reporting on these) – subsequent to this, exemplar and other services were established in six DHBs
- (#6) piloting discharge planning guidelines for CAMHS and AOD services in four DHBs
- (#5a) setting up Youth Service Level Alliance Teams (Youth SLAT) beginning in 2014/15, following the primary care services stocktake.

The Youth Primary Mental Health initiative (#3) was employing a 'stepped care' approach as its model of care: the components of care (e.g. brief interventions, packages of care, group therapy, extended consultations) and how care was to be delivered (e.g. by GPs, clinical psychologists, nurses, NGOs) and where (e.g. in schools, YOSS, clinics) were defined at local level by DHBs or by primary health organisations (PHOs) and/or NGO providers that were contracted to deliver the initiative. By contrast, the Ministry of Health led the development, trial and evaluation of exemplar AOD and co-existing problems services in the Northern and Southern DHBs (#7).

Implementation was further complicated by the fact that there were varying sources of funding for YMHP initiatives. New funding was attached to some YMHP initiatives delivered locally (e.g. PB4L initiatives #8, #9 and #10), while others were funded by a combination of new and re-allocated baseline funds (e.g. SBHS #1, YPMH #3) or purely from baseline funding (e.g. Canterbury initiative #26, 'navigator guidelines' (#23), and delivery of MH101 training for frontline social services staff (#21)).

Despite increased funding, a common comment from locality stakeholders who were interviewed was that they were not adequately resourced, either financially or in terms of their staff's capability, to respond to the increased need for youth mental health services. Furthermore, in the evaluation of the Youth Primary Mental Health initiative (#3), some DHBs reported difficulty in finding local service providers to take up initiatives, as potential providers thought the funding was insufficient to set up a new service and they were concerned about long-term sustainability.

Some DHBs had multiple small providers and/or several PHOs, which affected how well services were integrated and how funding was allocated. It might be argued that multiple small providers makes it easier for youth to find the specific service that best suits them in terms of location, gender, ethnicity and focus of the provider (such as mentoring, counselling, AOD, sport-based, or music-based). However, stakeholders in some localities reported that having multiple small providers meant schools and health services did not know who or where to refer youth. Contracting with multiple providers made it more complex for provider organisations and led to fragmented services, with different youth having access to different types of services depending on where they lived. Cross-sectoral collaboration was more difficult for small providers, who reported that it was demanding to find and fund the time to build relationships and work together.

Conversely, if a DHB engaged a single provider that was well-connected across the community and knew what services were available and where, it was easier to allocate new or expanded services where they were required. Referral pathways were simplified for school nurses and others in primary care. For example, in Lower Hutt and Wainuiomata, the YOSS 'Vibe' was funded to provide free drop-in nurse and GP clinics for youth, as well as counselling, youth workers, and a youth hangout space, all in its main location in central Lower Hutt. Vibe also contracted the School-Based Health Services (#1) and youth coaches in Lower Hutt and Wainuiomata. Locality stakeholders reported a high level of awareness of the services among youth, schools and other providers, with clear referral pathways.

Box 1 and Box 2 below describe two quite different local delivery systems that were studied as part of the locality-based case study evaluation.

Box 1: Localities varied in their governance structures and their ability to network and collaborate

Locality case study A

Locality A has a well-established governance system for youth. An established Youth Service Level Alliance Team (Youth SLAT) sits across the three DHBs in the wider area. It took time to establish the group and to bring the focus of providers onto young people and not the immediate service delivery issues of each provider. The established group was described by the providers and agencies interviewed for the localities study as 'working collaboratively' and as 'thinking outside their own services'.

Primary care is provided through one large and one small PHO, a strong YOSS (Youth One Stop Shop), marae-based providers, and a Pacific provider. The YOSS is a major provider of youth services. It provides youth-friendly services through a drop-in centre and satellite clinics. The YOSS employs the school-based nurses, runs YOSS 'branded' clinics in the eligible schools, and also runs clinics in other locations such as marae. The YOSS was described by several stakeholders as having strong relationships with mental health services. The YOSS also holds contracts for providing social services such as youth workers, and Work and Income youth support services.

Other primary care providers refer youth to the YOSS, which is seen as part of the primary care network. The YOSS receives discretionary funding from the DHB and, because of the Budget 2014 bid (initiative #5b), is funded outside of the primary care funding formula. As a result, the YOSS is not seen as competing with other primary care providers and does not have to enrol youth. The advantages of having one large youth provider were evident – there was increased awareness of the service and the service had a greater ability to grow and develop its teams and the quality of services provided.

Specialist services are provided through a free infant, family, child and adolescent service based at the hospital and two community support providers who recently merged. The community support providers provide mental health, health and disability and supported employment services, and regional drug and alcohol services, in partnership with other providers.

The common theme in comments from stakeholders in Locality A was that the system is generally working well but is challenged by demand exceeding the current capacity.

Box 2: Localities varied in their governance structures and their ability to network and collaborate

Locality case study B

Locality B is characterised by recent changes at governance level and by a large number of service providers. The locality includes a youth hub service, which offers some of the services that would be offered by a YOSS. One of the aims of developing the youth service was to implement a collaborative service model for youth services in the area. Services combined in one place can reduce some access barriers and the chance of losing youth during referrals between providers. Within the youth service, good relationships are in place, or are developing, between or within provider groupings. Providers saw the youth service as being attractive to youth, including those who have left school, but observed that geographically it covers only a relatively small part of the locality's area.

Outside the youth service, providers were not as aware of each other and networks were not as clear as in Locality A. Instead the locality comprised different small networks of providers, some of whom are ethnically based, who know each other and refer to each other. However, the plethora of small NGO providers also contributed to a lack of awareness of the various services and eligibility criteria on the part of school staff and primary providers. While small providers may be better able to meet the needs of the diverse populations in a locality, the lack of clear referral pathways makes it harder to provide (and access) early support. Some overlaps in services, along with some gaps, were also identified, as well as over-subscribed specialist services.

Many of those interviewed recognised a need for more collaboration between providers, which would lead to clearer referral pathways.

In Locality B, in particular, the system of health and social service provision changed during the school holidays, when access to school-based support was not available.

6.3_ Schools varied in how well they supported wellbeing and linked with their community

6.3.1 _ School environments varied in how well they supported youth wellbeing

The school environment is critical in promoting youth wellbeing and in engaging youth with health and social services, either in or away from the school setting. The locality studies found considerable variation between schools in the extent to which they supported student wellbeing.

The school environment can also have negative effects on youth wellbeing and mental health. Bullying, especially social media bullying, was identified as a major problem in the locality studies. Responses to the OurSCHOOL survey[4] showed considerable variation between schools in emotional health, and in school-based risk and protective factors. For example, the survey indicated that, on average, 15% of students had experienced moderate to severe bullying and 31% felt unsafe at school; but in one school bullying affected about one-quarter (26%) of students and half of students felt unsafe at school. Protective factors had a smaller variation: on average, three-quarters (75–76%) of students reported having a positive sense of belonging and positive student-teacher relations, with the figures across schools ranging from 57% to 89%.

The differences in school environments we saw were mirrored in the findings of the ERO review of wellbeing in schools (part of initiative #11). ERO found 11 of the 68 secondary schools had cohesive systems aligned with school values, and were well-placed to promote and respond to student wellbeing; 39 schools had elements of good practice, while 18 schools had a "range of major challenges that affected the way they promoted and responded to student wellbeing" (ERO, 2015). Four of these schools were considered to be "overwhelmed by their issues and unable to adequately promote student wellbeing" (ERO, 2015).

The New Zealand Curriculum provides flexibility for teachers in shaping a curriculum that is meaningful for their students – including enquiry-based learning. Given that 'resilience' and 'engagement' are characteristics that can be taught, schools and their teaching staff had choices about whether or not to take up initiatives such as PB4L School-Wide and My FRIENDS Youth, which were meant to improve youth wellbeing and the school culture. In fact, schools need 80% of school staff to 'buy in' to PB4L by means of a vote before starting PB4L School-Wide. Some schools in the locality studies (particularly state-integrated schools) considered they did not need PB4L School-Wide because they already had well-established school values and a positive school culture.

In March 2016, as part of initiative #11 and in order to strengthen school-based support by clarifying expectations about the priority schools need to place on wellbeing, ERO published an effective practice report and a resource to help schools promote and improve student wellbeing through internal evaluation. As a result, student wellbeing is included as part of ERO reviews in schools.

4 While over 3,000 students responded to the OurSCHOOL survey, the anomalies of sampling mean the sample is not representative of any given locality or the district within which a locality is located. The anomalies included, for example, that only a small number of self-selected schools were sampled in each locality and that the classes participating in the survey were selected by the schools. For the purposes of comparing localities and schools, the data can be treated as indicative only. Where possible, we have supported the indicative findings with data and information from other sources.

6.3.2 _ Guidance and counselling within schools varied

Students' awareness of and attitudes to school guidance counsellors differed across the schools included in the locality studies. In some of the schools, students respected the guidance counsellors and said they felt comfortable speaking to them. At other schools the students either did not like their guidance counsellor or did not know who it was.

Some students said there was a stigma attached to seeing the guidance counsellor. The ERO (2013b) study on guidance counselling found that one-third of students said it was not socially acceptable at their school to see someone for guidance and counselling. Most commonly, students said they were worried about being judged by their peers for this, or being bullied and talked about negatively. The second most commonly cited barrier was embarrassment or shyness on the part of the students.

The physical space used by the pastoral care team and the processes around making appointments influenced how comfortable students felt using the services. For example, some schools in the locality studies had dedicated purpose-built areas (either a wing of a building or a stand-alone facility) specifically for the guidance counsellor, school nurse, doctor, and any other relevant people (e.g. visiting AOD counsellors). At schools with no dedicated space, students sometimes found it difficult to make an appointment without others knowing about it. In one example, the waiting room for the guidance counsellor had a lot of window glass, so that waiting students were highly visible to those walking past. The importance of having a private space for guidance and counselling that youth can access less conspicuously is also reflected in the ERO (2013a) report.

The processes around how guidance counsellors contacted students could affect confidentiality, and discourage students from seeing one. At one school, students raised concerns that the slip to leave class to see the guidance counsellor was a different colour from other slips.

More fundamentally, ERO (2013b) observed that the Ministry of Education does not provide clear definitions of guidance and counselling, nor of how it differs from pastoral care. In their review, ERO (2013b) found that 'guidance and counselling' and 'pastoral care' were sometimes differentiated within a school, and sometimes not. In some schools, they were seen as the same concept.

ERO (2013b) outlined six characteristics of good guidance and counselling practice in schools:

- approach – a strong ethos of care, a commitment to the holistic wellbeing of students, and an understanding, demonstrated in the school's strategic vision, that student wellbeing is critical to learning and achievement
- implementation – a guidance and counselling model that used deans, guidance counsellors, form teachers, tutors or whānau teachers, and oversight by a member of the senior leadership team. Other staff and providers (e.g. school nurses and youth workers) could also be included
- strong leadership providing clear guidelines and goals
- preventive programmes
- students are aware of guidance and counselling services, and refer themselves or other students to these services
- strong, trusting relationships and good communication.

ERO's report to the Ministry of Education (2013b) recommended reviewing entitlements, considering ways to support schools to use their staffing entitlement, providing guidelines on how to provide guidance and counselling, developing targeted professional training, and ensuring that "schools have appropriate and sufficient access to external agencies and support services to meet the wellbeing needs of students, including the Ministry working with other government departments in the health and social sectors to facilitate this." ERO (2013b) also recommended that the Ministry encourage schools to set goals and approaches for student wellbeing in their charters and annual and strategic plans.

It will be important for the Ministry's response to consider the characteristics of good guidance and counselling practice, including where physical space is made available for these services, the information provided to students, and the role of guidance and counselling in school pastoral care and as part of the broader staff team.

6.3.3 _ Some schools had little connection with community-based services

The locality studies found that often schools, including their health services, are quite isolated from the local delivery system. Schools were not usually part of local governance or working groups.

In the locality studies, some providers said that some schools were difficult to engage with, while some schools and their pastoral care staff were unaware of the various providers available in their locality.

The establishment of 'communities of schools' could facilitate better links with community-based services and smooth the transition for youth from primary or pastoral care within the school to support and treatment within the community. There are at least two different forms this facilitation could take:

- Sharing information across a community of schools will expand knowledge about available resources and services, enabling better access to them.
- It may be possible to have a 'community of schools' representative on the local Youth SLAT, to further enhance the connections between school-based services (including pastoral care and health services) and the community.

6.4_ Expanding the ability to identify youth is good, but referrals and service capacity issues hinder further actions

6.4.1 _ Use of HEEADSSS for early identification supported by providers

In the locality studies, the providers interviewed were positive about HEEADSSS assessments for early identification of potential mental health issues. However, some school nurses highlighted the length of time taken for a thorough HEEADSSS wellness check (usually 30 to 45 minutes in a school setting) and said this made it difficult to complete assessments for all Year 9 students (which is required of schools that have YMHP-initiated SBHS) and/or the referrals arising as a result of an assessment. This may need to be investigated further.

Where a HEEADSSS assessment identified a youth with multiple issues or high needs, school nurses reported that the administrative tasks associated with referrals could often take a significant amount of time (several hours), which is often not factored into contracts and budgets. In some cases, health staff administering HEEADSSS may not know what social services are available to refer the youth to. School nurses commented that it could also be difficult to refer youth to specialist services because of long wait times or strict criteria, even when the school-based provider thought treating the youth was beyond their own capability.

No data have been collected on how many youth receive HEEADSSS assessments at primary care (i.e. outside of school). In a survey of 317 people involved in Youth Primary Mental Health services (completed as part of the evaluation of those services), 23% used HEEADSSS wellness checks as part of a formal screening process and a further 51% used the checks partially or informally. Their use is likely to increase, as all medical students in Dunedin and Christchurch are taught how to do HEEADSSS as part of their training, and the online training tool continues to be accessed by New Zealand professionals.

6.4.2 _ Unclear referral pathways hampered transitions of youth between services

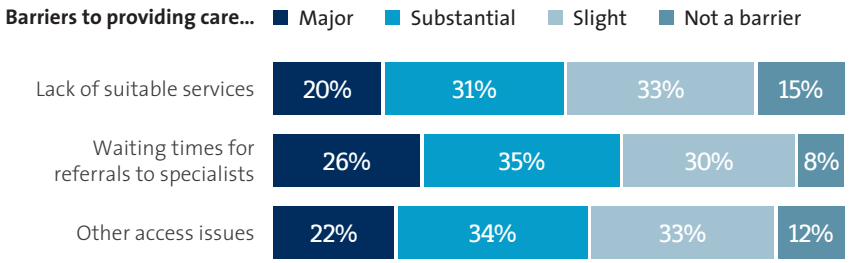
Logically, the ease of transition between services for youth must be an important aspect of an effective and efficient system. One factor affecting transition is having a well-connected and well-integrated local delivery system. Looking across the localities, we found that the level of connectedness and integration varied considerably.

Expanding the capacity to identify youth in need of further support or treatment, e.g. through HEEADSSS assessments in schools and the community, was considered a good outcome, but the follow-up, if it involved transitioning the youth to another service, could be "difficult". In smaller localities, usually with fewer services available overall, individual professionals and service providers relied on personal networks to know where to refer a youth who needed further support for their mental health. In larger localities, and where there were multiple small providers, schools and primary care providers said it was challenging for them to know who to refer to. They described difficulty in knowing who the youth-specific providers were, and said that providers' access criteria for youth were unclear and frequently changed. Some were also critical of the quality of service provided by some smaller NGO providers and therefore avoided referring to those services.

6.4.3 _ Access hindered transitions of youth between services

In some cases, primary care providers also reported they were hampered by the limited capacity for youth to obtain support and treatment. For example, while the CAMHS and AOD targets (#7) for seeing youth for their first (assessment) visit within three weeks and eight weeks were largely met, providers in both the Localities and National Perspectives Evaluation (Malatest, 2016a) and the Youth Primary Mental Health (#3) evaluation (Malatest, 2016b) reported there was a considerable wait list in some localities for the youth to begin treatment. Over half of the primary care providers surveyed in the Youth Primary Mental Health evaluation (Malatest, 2016b) reported a lack of suitable services, and that waiting times for referrals and other access issues were major or substantial issues in providing care for youth with mental health issues (see Figure 4 below).

Figure 4 _ Barriers to providing care for youth
(Source: Malatest, 2016b, n=317)

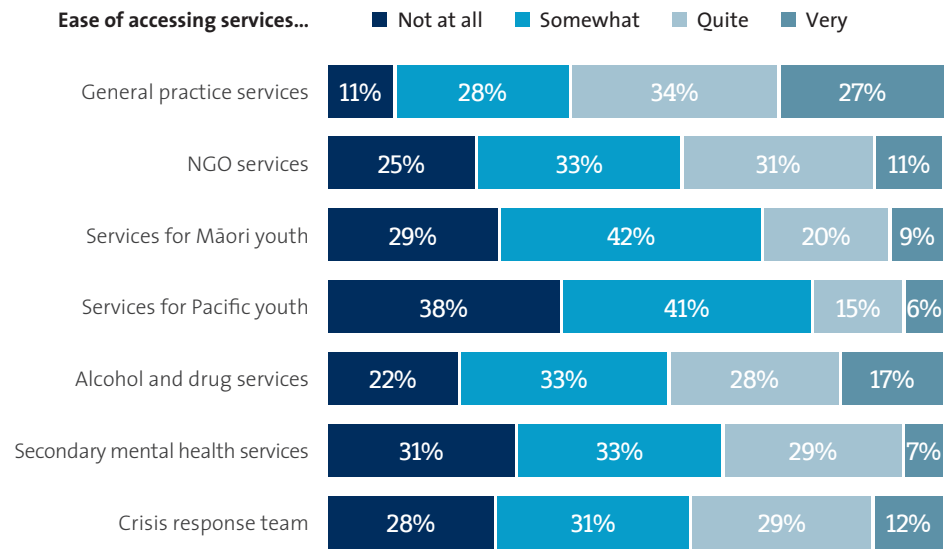


One factor that may contribute to increased waiting times arises from 'over-referral' by primary providers to secondary services. This could arise because a primary provider lacked confidence in managing a youth with more than mild mental health issues. It was exacerbated by schools and providers seeking services for youth who fell just below the CAMHS threshold. These were youth with moderate mental health issues that were more serious than an NGO or primary care provider (particularly school nurses) felt comfortable treating, but not serious enough for secondary services. It may be worth investigating whether these providers have considered the possibility of referring and/or supporting these youth to use SPARX or an alternative online tool.

Accessing particular types of secondary services was a problem identified by primary providers who responded to the evaluation survey of the Youth Primary Mental Health initiative (#3) (see Figure 5 below). In particular, 38% of providers reported that access to services for Pacific youth was not at all easy; access to services for Māori youth and 'crisis response teams' was not at all easy for 29% of providers; and access to 'secondary mental health services' more generally was not at all easy for 31% of providers. It is not possible to know if the difficulty was due to a lack of knowledge about available services or if there were capacity issues.

Figure 5 _ Responses of youth mental health service providers to questions about availability and access-related barriers to providing care for youth with mental health issues

(Source: Malatest, 2016b)



Some youth-specific providers who were interviewed in the locality studies reported that they were at capacity and had difficulty managing multiple small contracts with different access criteria for youth. Services that were at capacity explained that there was no value in them promoting their services to schools or other providers. In the locality studies, one YOSS reported "closing their books" to process the overload before accepting new referrals; another YOSS did not maintain a waiting list, and another did not promote the services it offered as it was at capacity.

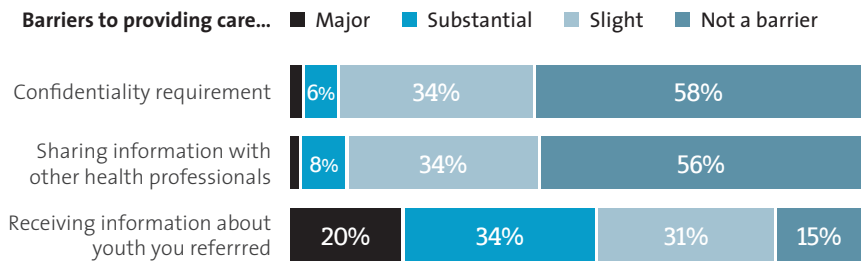
It is likely that capacity issues are being encountered for specific services and in some localities, rather than across all secondary services. For example, in its *Quarterly Report for the Youth Mental Health Cross-Agency Steering Group* (2016), the Ministry of Health reported that CAMHS and AOD services have developed significantly between 2009 and 2015. Despite steady increases in demand over this period, access rates are up, waiting times for first appointments have reduced, waiting times for second and third appointments have not increased, service provision gaps in eating disorders and youth forensic mental health have been addressed, and CAMHS productivity has improved.

6.4.4 _ Often the provider making a referral received no feedback

Once a referral was made, primary care providers in localities reported that it was common for them not to be told whether the referral had been taken up or what care the youth might be receiving. This was confirmed in the evaluation of the Youth Primary Mental Health initiative (#3), where 54% of 317 youth mental health service providers surveyed said that not receiving information back about youth they had referred was a major or substantial barrier in supporting youth with mental health issues (see Figure 6 below). The same providers thought that 'Confidentiality requirement' and 'Sharing information about youth with other providers' were not barriers to care.

Figure 6 _ Responses of youth mental health service providers to questions about process-related barriers to providing care for youth with mental health issues

(Source: Malatest, 2016b, n=317)



Some school staff were frustrated with not knowing what was happening with their students after they referred them to an external service, although they acknowledged that confidentiality was important. Primary care services also wanted more feedback from the secondary and tertiary services they refer to. As with referral processes, how much follow-up providers receive after a referral may depend on personal networks.

6.4.5 _ Some activity is underway to address referral pathway issues

Firstly, effective referral pathways require appropriate referrals and secondly, specialist providers having enough capacity to accept referrals and provide timely treatment. We found that professionals need more support in making referrals based on the information generated by a HEEADSSS assessment. Providers particularly need to know where to refer to, what to do if a youth does not meet the service criteria, and how to work 'outside their scope' to support a youth while the youth is on a waiting list.

Some DHBs have used Youth Primary Mental Health (#3) funding for mental health co-ordinators and 'single point of entry' services to increase awareness of referral pathways and options by providing access to specialists for advice – for example, youth clinical specialist co-ordination roles located in schools and primary care settings, and co-location of youth psychologists in primary care services (Malatest, 2016b). Some DHBs are providing further training for primary providers in order to improve their skills and confidence in managing youth in primary care, which can also relieve some pressure on secondary services.

Continuing to improve referral processes and integration between primary care and specialist or secondary services will help to ensure 'every door is the right door' and that the stepped care model works efficiently.

6.5_ Youth SLAT could contribute to better coordinated and more effective services...

Some YMHP initiatives were designed to improve collaboration between agencies and between providers at the local level, but these are still in relatively early stages of being implemented. Initiative #5 is focused on improving the responsiveness of primary care to youth. The decision to extend Youth Service Level Alliance Teams (Youth SLAT) to all DHB districts (#5a) was made part-way through the project, based on findings from a DHB stocktake.

Establishing sustainable funding for YOSS (#18, #5b) was also part of the initiative. In the first instance, one-off funding of $50,000 to each of the 12 YOSS nationwide was provided through initiative #18. Ongoing and secure funding of $8.4 million for four years was obtained for YOSS through a 2014 Budget bid.

As part of YMHP initiative #5a, DHBs were required (through the 2014/15 DHB annual planning package) "to establish a youth-specific Service Level Alliance Team (for 12 – 19 year olds), including YOSS where they exist, and other stakeholders such as school-based health services to determine local needs and agree service provision and funding" (Ministry of Health, 2014a). Each DHB took a slightly different approach to establishing a Youth SLAT (or its equivalent), based on the extent to which a youth advisory or governance group already existed (health or cross-agency), and based on local priorities, relationships and work programmes.

By June 2016, 19 of 20 DHBs had a Youth SLAT or its equivalent in place, with the majority of them established in 2014 and 2015.

As part of this evaluation, the Ministry of Health reported that Youth SLAT memberships incorporate a range of participants, including DHBs, PHOs, youth service providers (e.g. YOSS, SBHS), Social Sector Trials and other key stakeholders (e.g. school principals, researchers/academics, local MSD and MOE staff, and Māori health and social sector NGOs). The precise membership is determined by each Youth SLAT, based on local stakeholders and relationships, and the Youth SLAT's work programme. Some DHBs have included youth as representatives on the Youth SLAT, based on the assumption that having youth representation can help providers to deliver services in a relevant and youth-friendly way.

Youth SLAT were established to drive change in youth services, and support engagement among the organisations involved in delivering youth services. As such, Youth SLAT (or its equivalent) were expected to be responsible for planning, funding and coordinating the implementation of integrated, responsive health and wellbeing services for youth in their communities. They were also responsible for: reviewing and improving the follow-up care for those discharged from CAMHS and Youth AOD services (#7); improving access to CAMHS and Youth AOD services (#6) through wait time targets and integrated case management; and expanding the use of HEEADSSS wellness checks in schools and primary settings (#1 and #2). Each SLAT determined its own work programme, based on local needs and priorities.

In localities where Youth SLAT (or its equivalent) were well-established, stakeholders reported that they were an effective way of bringing networks of providers together and setting local priorities. MOH also reported that draft 2016/17 Annual Plans showed increased Youth SLAT maturity (e.g. the Youth SLAT was the primary planning and commissioning mechanism for youth services and for the delivery of the DHB's youth work programme), more innovative initiatives (e.g. integrated models of school-based health services), and increased DHB-led wellbeing initiatives (i.e. not just health services).

6.5.1 _ Further enhancing the role and authority of Youth SLAT may assist to achieve YMHP outcomes

Cross-sectoral engagement was not highly visible in the localities, but establishing Youth SLAT (or its equivalent) could help address this situation, particularly if Youth SLAT are encouraged or required to include a range of stakeholders to join and actively participate in the SLAT. It may be worth considering engaging with communities of schools, rather than individual schools. Encouraging DHBs to include youth and community 'voices' or representation on Youth SLAT could help with identifying local needs and strengthen responses to improve youth wellbeing.

MOH, in conjunction with other YMHP agencies, could also consider encouraging or mandating Youth SLAT (or its equivalent) to integrate social- as well as health-related youth services. Further investment may be required to develop the capacity and capability of Youth SLAT to play a cross-sector joint commissioning role.

Irrespective of whether the role of Youth SLAT (or its equivalent) is expanded, the efficiency and effectiveness of youth services could be enhanced by sharing information between districts about what works at the system level and for providers. Sharing information about what works is likely to help Youth SLAT develop innovative ways of supporting youth.

MOH is in the process of procuring a supplier to establish a national quality improvement collaborative for youth health. This will involve finalising draft 'good practice' expectations for youth health service delivery (initiative #24), as well as working with Youth SLAT to support quality improvement in youth services. All of that could assist with the integration of local delivery systems.

6.6_ ...while co-located and youth-friendly services make it easier for youth to access them

Malatest (2016a) suggested that services that are youth-friendly are more likely to be used by youth. Youth-friendly health services are described by the World Health Organization (2009) as being:

- accessible – adolescents are able to obtain the health services that are available
- acceptable – adolescents are willing to obtain the health services that are available
- equitable – all adolescents, not just selected groups, are able to obtain the health services that are available
- appropriate – the right health services (i.e. the ones they need) are provided to them
- effective – the right health services are provided in the right way, and make a positive contribution to their health.

Several YMHP initiatives incorporated approaches to making health and social services more youth-friendly and accessible, such as extending SBHS (#1), co-locating additional social services in schools (#25), improving primary care responsiveness to youth and providing sustainable funding to YOSS (#5a, #5b), increasing access to Youth Primary Mental Health services (#3), Youth Workers in (Low-Decile) Secondary Schools (#14), and youth mental health training for frontline social services staff (#21).

Stakeholders in the locality studies were positive about SBHS, as they believed having health services on school grounds reduced barriers to youth accessing services (e.g. transport, travel time, opening hours clashing with the school day) and may reduce some of the stigma associated with youth seeking help for mental health. The evaluation of SBHS by the Adolescent Health Research Group (2013) found there was significantly less depression and suicide risk among youth in schools where: SBHS had health professionals onsite; the hours of nursing time per week per 100 students was 2.5 hours or higher; the health professionals were trained in youth health and supported through professional peer review; and the health professionals were integrated with the school and the local community. Where nursing time was 2.5 hours per week per 100 students and nurses undertook routine HEEADSSS assessments, there was lower accident and emergency hospital use among students.

Co-locating social services and youth specialist mental health services at a YOSS or other youth-friendly service can reduce barriers to access and facilitate continuity of care. For example, at a YOSS, the nurse may physically accompany a youth down the corridor to meet their new counsellor – rather than the youth being given a written referral and having to go to a different location for their appointment. This can be particularly beneficial if youth are able to see specialist services such as CAMHS in a more youth-friendly environment, rather than having to go to the hospital, which can be intimidating.

Examples of co-locating services were described in the evaluation of the Youth Primary Mental Health initiative (#3). These included: locating specialist mental health clinicians in primary care in Lakes DHB; brief intervention services and packages of care being offered on site at YOSS or other youth-friendly locations; youth clinical specialist co-ordination roles located in schools and primary care settings; co-locating a psychologist in a school so that Pacific youth gain access to support where parents will not sign a consent form; and some DHBs co-locating other specialist services including alcohol and drug counsellors and smoking cessation providers.

In some schools, guidance counsellors reported allowing students to use school computers to access SPARX (#4).

Having secondary care services in a primary care setting also allows for knowledge sharing between primary and secondary providers. In Whanganui, for example, a CAMHS psychiatric registrar came to the YOSS for one hour per week (mostly to do risk assessments and to give advice on medication). This allowed YOSS staff to access specialist services, and allowed the psychiatric registrar to learn more about working with youth and about what services were available at the YOSS.

07

How successful was the targeting of YMHP?

Key messages

- Targeting decile 1–3 schools worked to reach some vulnerable groups of youth.
- However, schools, providers and communities identified all youth as potentially vulnerable to mental health issues, particularly those in decile 4–7 schools or youth not in school.
- Data from the locality studies and the initiative evaluations suggest that some Māori and Pacific youth benefited from YMHP. More investigation is needed to determine the value of specific targeting for mild to moderate mental health and wellbeing issues.
- Some youth populations were less well served by YMHP, namely: Christchurch youth suffering from earthquake-related issues; youth identifying as 'LGBTI' (lesbian, gay, bisexual, transgender or inter-sex); youth with disabilities; and youth experiencing multiple unexpected transitions.
- While youth not in employment, education or training ('NEET') were a specific target of YMHP, it was not possible to assess how well-served by YMHP they were.
- More resources and information were created to help families and communities to support their youth, but some people still did not know what to do or how or where to access help.
- YMHP did not specifically support parent-youth relationships, despite those relationships being crucial for creating youth resilience.
- It may be that some youth do not seek help because they do not have someone to ask, there is a stigma attached to seeking help, or they do not have access to help.

Key recommendations (full details in section 9)

- Acknowledge that adolescence is a time of high vulnerability, and expand the scope to include all youth aged 12 to 19.
- Target other youth populations, particularly youth NEET, and expand YMHP for Canterbury youth, youth identifying as LGBTI, youth with disabilities, and youth experiencing unexpected transitions.
- Address ongoing stigma-related issues for youth and their families and whānau.
- Increase the focus on resilience and supportive adult relationships, particularly relationships between youth and their parents or caregivers.
- Promote awareness of existing resources, information and services among youth, their families and whānau, schools and the wider communities.
- Do further work on understanding Māori mental health and wellbeing, and risk and protective factors, particularly in relationship to New Zealand European and other youth.
- Do further work on understanding mental health and wellbeing among Pacific youth, and risk and protective factors, particularly in relationship to New Zealand European and other youth.

7.1_ Some YMHP targeting worked, but some youth missed out and others may not need it

7.1.1 _ Focusing on school decile ignores other drivers of youth mental health

Some YMHP initiatives used school decile as a basis for reaching more vulnerable groups of youth. Initiatives such as School-Based Health Services (including HEEADSSS assessments) and Check & Connect targeted decile 1 to 3 schools to reach more youth who are considered vulnerable. Low-decile schools also include higher proportions of Māori and Pacific youth, who are considered to be at greatest risk of mental health issues and were specific targets for YMHP.

However, in the locality studies, schools and providers identified all youth as potentially vulnerable to mental health issues, suggesting the underlying drivers of mental health issues may vary – from the effects of poverty on youth wellbeing, to anxiety resulting from stress about exams. Stakeholders associated with mid-decile (4–7) schools thought students at their schools faced many of the same challenges as lower-decile schools, but did not receive additional funding and services through initiatives such as YMHP, apart from PB4L School-Wide (initiative #8). Their students' parents were also less able to pay for private services (e.g. psychologists) than those from higher-decile schools. ERO (2013b) also reported that schools and wharekura were providing guidance and counselling for students who presented with many different problems. ERO (2013b) found that these problems were apparent in all types, deciles and locations of schools.

Descriptive analysis of the OurSCHOOL data supports the view that the prevalence of emotional health and of risk factors and protective factors does not vary according to school decile (see Appendix C).[5] Also supporting the view that all youth are potentially vulnerable is the analysis of the Youth 2012 survey results (n=8,500 across 91 schools) by the Adolescent Health Research Group (2013), which is based on low, medium and high New Zealand 2006 Deprivation Index (NZDep2006) deciles,[6] rather than school deciles. The Youth 2012 analysis found no significant difference between low, medium and high NZDep2006 areas, nor between urban and rural areas, for students' experiences of emotional worries, depression and self-harm in the last 12 months.

7.1.2 _ Māori and Pacific youth seem well-served, but further investigation is needed to determine the full value of YMHP initiatives for these youth

While the majority of YMHP initiatives were not specifically aimed at Māori or Pacific youth, there was an expectation that these and other vulnerable groups would benefit from YMHP.

5 Note that because of sampling anomalies, there were only four 'high' decile (8–10) schools in the OurSCHOOL sample, and three of these were girls-only private or state-integrated schools.

6 A decile of 1 represents areas with the least deprived scores and 10 represents areas with the most deprived scores. For the purposes of this report, students are grouped into three decile bands, indicating low (1–3), medium (4–7) and high (8–10) levels of deprivation.

Māori and Pacific youth seem reasonably well-served by YMHP initiatives

Evaluations for several initiatives, as well as information gathered from the localities, found that Māori and Pacific youth could be experiencing similar benefits to other youth from their participation in YMHP initiatives:

- School-Based Health Services (#1) were established in all decile 1–3 schools, where there are known to be higher proportions of Māori and Pacific students. At the time this report was written, we were unable to obtain data on what proportions of students seen by School-Based Health Services (#1) were Māori or Pacific youth. A new reporting template including ethnicity and other information was introduced in late 2015, so this information will be available in the future.
- The PB4L initiatives (#8, #9 and #10) were also focused on decile 1–3 schools. Māori (57%) and Pacific (62%) students overall agreed or strongly agreed that they used the strategies from the PB4L My FRIENDS Youth initiative (#10), which was higher than the New Zealand European students (55%) (see MacDonald, Bourke, Berg, & Burgon, 2015).
- PB4L School-Wide (#8) schools reported forming relationships with local iwi and kaumātua, or revisiting the cultural geography of the school, or embedding whakatauākī of well-known Māori leaders into their school values.
- Most students taking part in Check & Connect (#9) were Māori or Pacific youth.
- Schools in locality studies reported other actions to support Māori and Pacific students, such as employing a local Māori woman as a school 'whaea' (aunty), who worked as a tutor and had a wider role at the school encouraging students and supporting their resilience. Another school encouraged teachers and senior Māori students to enrol in a correspondence course on tikanga Māori, where the two groups could study together.
- The evaluation of the Youth Primary Mental Health initiative (#3) reported that Māori were accessing the services at rates exceeding their proportion of the youth population, while Pacific youth were accessing services at rates similar to their proportion of the population (Malatest, 2016a).
- Through the Youth Primary Mental Health initiative (#3), a PHO formed a partnership with a Community Trust. Programmes at the Trust include: a tutorship carving programme based on attachment theory, where male youth learn to carve and then share those skills with their fathers; an iwi provider employing a Māori man to work as a positive role model, particularly for young Māori men; and an iwi provider delivering programmes aimed at developing youth resilience and developing a sense of connection to their whānau and their tūrangawaewae.
- Some ventures developed from Lifehack (initiative #15) specifically focused on Māori and Pacific youth, such as Beast (to activate resilience among young Māori men) and Kamp Kaitiaki (residential programme for young Māori girls).
- In a survey of 322 users of the Common Ground website (#17), 32% identified as Māori and 11% identified as being of Pacific origin.
- Another initiative, Whānau Ora for youth mental health (#22), a pilot specifically focused on Māori youth in Hastings and Pacific youth in Counties Manukau, worked with 40 youth and their families and whānau/aiga.

One notable exception to this engagement was in the use of the e-therapy tool, SPARX, where analysis of SPARX monitoring data found that Māori and Pacific (and Asian) youth were under-represented among SPARX users who registered and/or completed at least one module, compared to the New Zealand population aged 15 to 19.

More investigation is needed to determine the value of specific targeting for mild to moderate mental health and wellbeing issues for Māori and Pacific youth

The OurSCHOOL data indicated that the emotional health of Māori and Pacific youth, as measured by indicators of anxiety or depression and self-esteem, was comparable to that of New Zealand European youth, and in some cases may be better (see Table 6). Further, there was generally little or no difference in the prevalence of risk or protective factors, with the exception of truancy (where reported truancy rates for Māori and Pacific youth were nearly twice that for New Zealand European youth). Māori use of tobacco and marijuana was also higher. These findings need to be explored further through broader studies.

Figure 7 (in section 7.1.4 below), which considers the OurSCHOOL data by locality, shows similar results for Northland, where 59% of the sample was Māori or Pacific youth, and their emotional health was as good or better than other localities.

TABLE 06

Comparing emotional health, risk and protective factors by ethnicity using OurSCHOOL data[7]

		Sample Statistics		Ethnicity Total Count		
Theme	**Variable**	**Total N**	**Average**	**European**	**Māori**	**Pacific**
Emotional health	Multiple indicators of anxiety	575	19%	19%	15%	11%
	Multiple indicators of depression	504	16%	18%	15%	12%
	Multiple indicators of low self esteem	987	32%	35%	31%	28%
Risk factors	Engaged in self-harm	586	20%	21%	23%	22%
	Lack of feeling safe at school	979	32%	30%	37%	36%
	Experienced 'moderate to severe' bullying	365	12%	13%	16%	16%
	Experienced 3 or more traumatic events	830	28%	30%	38%	35%
	Regularly truant	286	9%	9%	16%	18%
	Self-reported alcohol use	216	7%	7%	11%	9%
	Self-reported tobacco use	214	7%	7%	13%	12%
	Self-reported marijuana use	205	7%	6%	14%	10%
	Would not ask anyone for help (in and outside school)	185	6%	6%	6%	7%
Protective factors	Positive sense of belonging	2289	74%	72%	75%	81%
	Positive relationships	794	26%	28%	24%	22%
	Good advocacy outside of school	1783	59%	57%	55%	62%
	Positive teacher-student relations	2314	75%	73%	71%	73%
	Positive learning climate	2329	75%	74%	71%	73%

7 Note that, because of anomalies of sampling, ±7% of the average value for a variable is considered to be within the margin of error. In this case, the value should be interpreted as not indicating any difference between ethnic groups. For example, in Table 6, there is no meaningful difference between New Zealand European, Māori and Pacific youth on the three emotional health variables.

For Māori, the above observations are supported by analysis of data from the Youth 2012 survey (Crengle et al., 2013), which used odd ratios, adjusted to take account of differences in the ages, sex, and socio-economic status of the Māori and New Zealand European samples, to quantify the differences between the two ethnic groups.

Consistent with Malatest (2016a), Crengle et al. (2013) reported the following findings:

- There were **no significant differences** between Māori and New Zealand European students in these areas:
  - reporting 'good', 'very good' or 'excellent' emotional wellbeing (measured using the WHO-5 questionnaire)
  - having a parent or parents who cared about them a lot
  - having people at school who cared about them a lot
  - experiencing significant depressive symptoms in the previous 12 months (measured on the RADS-10 Adolescent Depression Scale)
  - having an adult outside the family to talk to.
- Māori were **more likely** than New Zealand European students to report:
  - attempting suicide in the previous 12 months
  - weekly use of marijuana.

There were, however, inconsistencies between these studies in the reporting of being bullied at school. This is an area that needs more investigation.

We compared Māori, Pacific and European[8] youth (aged 15-24) using the combined 2011-2014 New Zealand Health Survey data. The New Zealand Health Survey data showed no significant differences between Māori, Pacific and European youth (aged 15-24) experiencing psychological distress, as measured by a score of ≥12 on the Kessler-10 (K10) scale. The combined data also revealed that Māori youth were significantly more likely than European or Pacific youth to have a hazardous drinking pattern (as defined by a score of 8 or more on the 10-question Alcohol Use Disorders Identification Test (AUDIT) and have used cannabis in the last 12 months.

The apparent similarity in the emotional wellbeing of Māori, Pacific and New Zealand European youth does not mean Māori and Pacific mental health and wellbeing is good: they still require access to youth mental health services. In some cases, this may be to 'culturally appropriate' services such as Fonofale, although there is qualitative evidence to suggest that Māori and Pacific youth sometimes prefer to attend mainstream services. Culturally specific models such as Fonofale may achieve greater effectiveness and buy-in from the community.

The finding that Māori, Pacific and New Zealand European youth experience similar emotional health needs to be explored and validated further. Superu will be undertaking a further in-depth explanatory analysis of the OurSCHOOL data to develop an understanding of what may be driving these results. It may be that risk or other behavioural factors drive some of the poor outcomes for different youth populations. Confirming this could lead to a change in policy focus for addressing the needs of Māori and Pacific youth.

8 The category "European" in the New Zealand Health Survey includes New Zealand European and other ethnicities, but excludes Asians

7.1.3 _ Wharekura engagement with YMHP was limited

Across New Zealand, there was very limited engagement of wharekura with YMHP. Many of them did not take up any of the YMHP initiatives, although nine decile 3 wharekura do have School-Based Health Services (#1) as a result of YMHP. It is also possible that their youth could engage with YMHP initiatives based in the community.

It was difficult, therefore, to get engagement by the wharekura in YMHP evaluations. The two schools that did participate in the evaluation did not appear to be well-connected to the local youth mental health system.

The low wharekura engagement with YMHP and potential lack of integration with local youth mental health systems is something that could be investigated further.

7.1.4 _ Other youth populations are less well-served by YMHP

Christchurch youth are different from youth in other regions

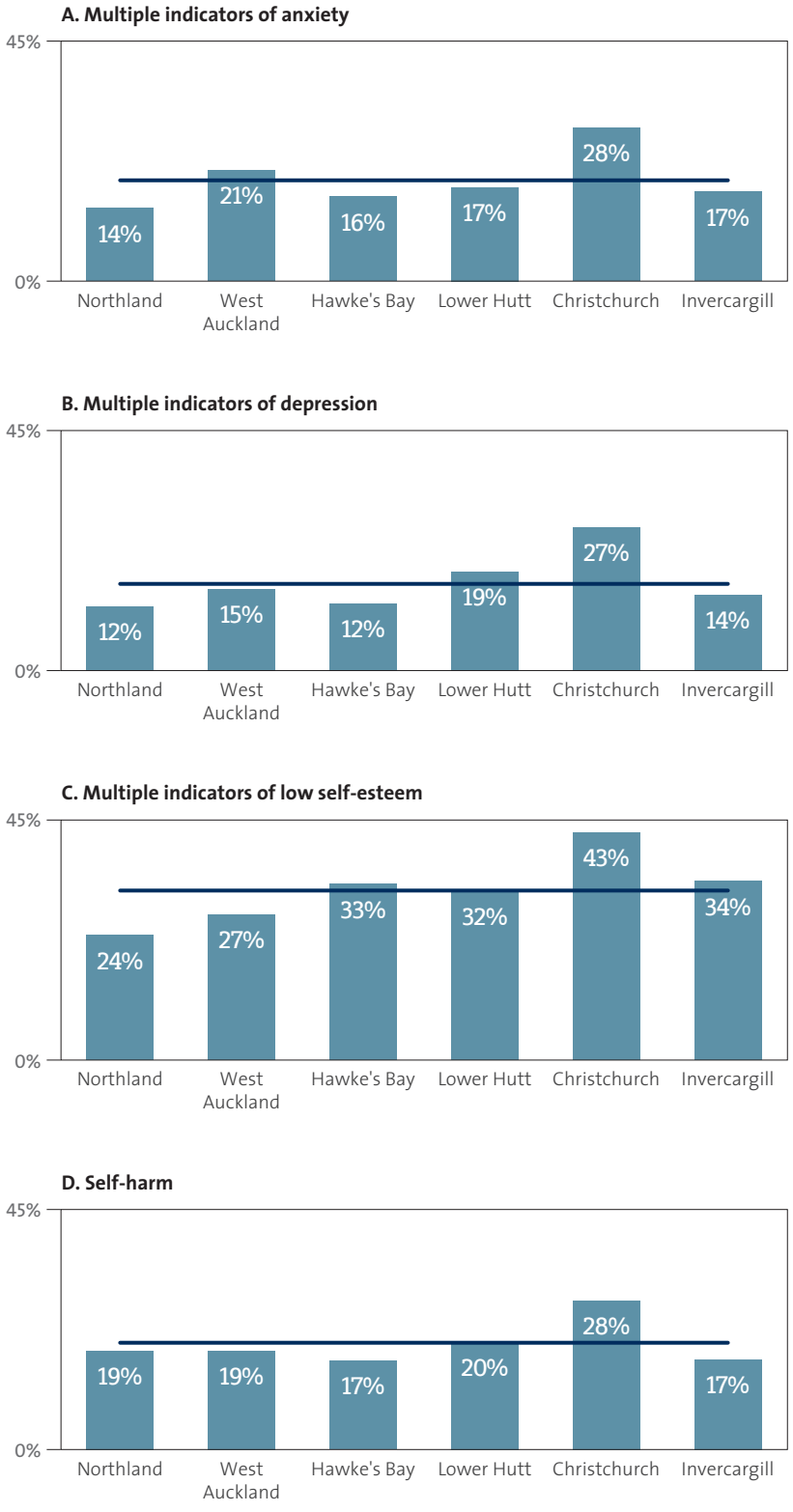
In order to target youth with or at risk of developing mild to moderate mental health issues, YMHP focused its service delivery on students at decile 1–3 schools, as these youth were considered to be the most vulnerable of the New Zealand youth population. As it was originally established in 2012, YMHP did not differentiate between regions, until initiative #26, 'Addressing the Emerging Youth Mental Health Issues in Canterbury', was introduced in mid-2013, in response to the 2010 and 2011 Canterbury earthquakes.

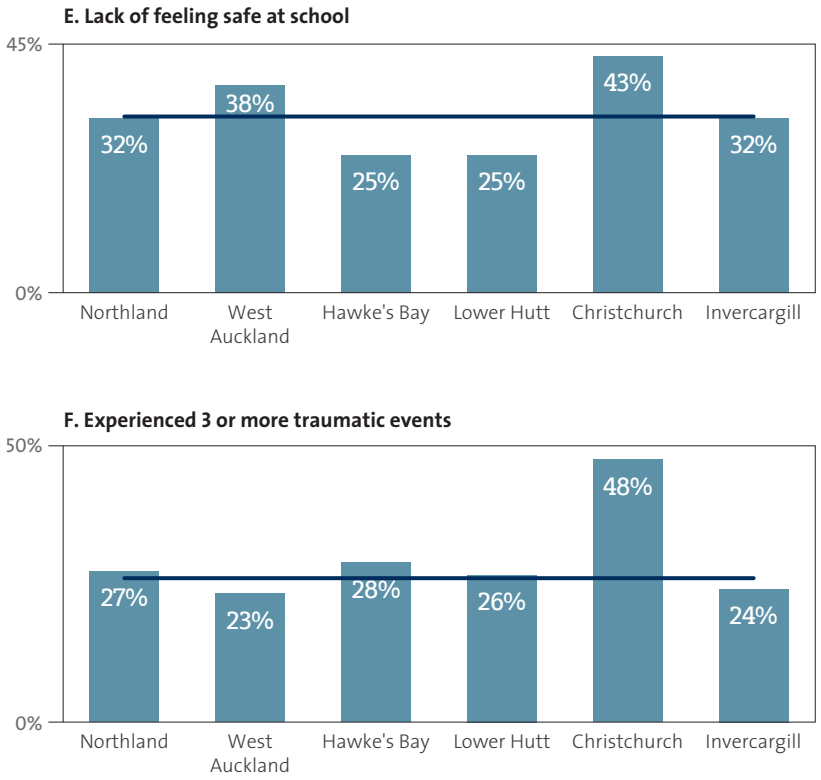
Figure 7 shows the results by locality from the OurSCHOOL survey.[9] Students from Christchurch reported worse emotional health outcomes, whereas students from Northland schools – where 59% of those in the sample are either Māori or Pacific students or both – reported better emotional health outcomes. Christchurch students experienced more risk factors and fewer protective ones.

That said, the consistently different (either higher or lower) values for emotional health, risk factors and protective factors for Christchurch youth complements research showing negative impacts of the earthquakes on the residents' mental health. For example, using data from the Christchurch Health and Development Study (a 35-year longitudinal study of New Zealand children), Fergusson, Horwood, Boden, & Mulder (2014) found that cohort members with high levels of earthquake exposure had rates of mental disorder that were 1.4 (95%CI, 1.1-1.7) times higher than cohort members not exposed to earthquakes. In a separate study, Spittlehouse, Joyce, Vierck, Schluter, & Pearson (2014) found that significant adverse impact on mental health continued 18 months after the first (September 2010) earthquake for a sample of middle-aged Christchurch people.

9 As noted earlier in this report, anomalies of sampling mean that for the purposes of locality comparisons the data can be treated as indicative only.

Figure 7 _ Locality-based comparison of emotional health and risk factors (Source: OurSCHOOL survey, n=3,170)





While there has been a regional response to youth mental health issues in Christchurch through initiative #26, we found that there was no data being collected to measure the effect of this response. Given the notable differences between Christchurch youth and those in other localities in 2015 (two years after initiative #26 was implemented) – even taking into account that the data is not entirely representative – we would suggest that introducing further support and treatment initiatives in Christchurch could be appropriate. In line with a social investment approach, it seems imperative to recommend that these initiatives be evidence-based and that efforts are made to track their effect on youth in Christchurch. Tracking effects are discussed further in section 8.

Youth identifying as LGBT and youth with disabilities are mostly invisible in YMHP

YMHP evaluation revealed that youth mental health issues occur across all school deciles and NZDep2006 deciles. Looking at other demographic characteristics of the youth population, as Table 7 shows, provides evidence that specific population groups could benefit from further targeting of YMHP initiatives.

In total, 213 students (7%) who completed the OurSCHOOL survey identified as lesbian, gay, bisexual, or transgender (LGBT).[10] Those students had worse emotional health, experienced one or more risk factors, and had fewer protective factors than other students. Most noticeably, over half (51%) of LGBT students said they had self-harmed in the last 12 months, compared to only one-sixth (17%) of students who did not identify as LGBT. LGBT students reported use of alcohol, tobacco and marijuana at rates more than twice those of the total population (16–20% compared with 7%). They were also more regularly truant (19% compared with 9%).

10 The survey question did not ask about youth identifying as inter-sex ('I'). We have used LGBT consistently in the report to refer to lesbian, gay, bisexual, transgender, and inter-sex.

TABLE 07

Population groups reporting greater emotional health issues, more risk factors, and fewer protective factors

Theme	Variable	Sample average	Compared with the sample average:
Emotional health	Multiple indicators of anxiety	19%	**Gender:** Girls reported worse emotional health outcomes than boys. **Locality:** Students from Northland schools reported better emotional health outcomes, whereas students from Christchurch reported worse emotional health outcomes. **LGBT and disabled** students reported worse emotional health outcomes.
	Multiple indicators of depression	16%	
	Multiple indicators of low self-esteem	32%	
Risk factors	Engaged in self-harm	20%	**Locality:** Students from Christchurch were more likely to report one or more risk factors than students from other localities. **LGBT and disabled** students were more likely to report one or more risk factors.
	Lack of feeling safe at school	32%	
	Experienced 'moderate to severe' bullying	12%	
	Experienced 3 or more traumatic events	28%	
	Regularly truant	9%	
	Self-reported alcohol use	7%	
	Self-reported tobacco use	7%	
	Self-reported marijuana use	7%	
	Would not ask anyone for help (in and outside school)	6%	
Protective factors	Positive sense of belonging	74%	**Locality:** Students from Christchurch were less likely to report having 'a positive sense of belonging' and 'good advocacy outside of school'. **LGBT and disabled** students were less likely to report one or more protective factors.
	Positive relationships	26%	
	Good advocacy outside of school (family support)	59%	
	Positive teacher-student relations	75%	
	Positive learning climate	75%	

Similar results in the OurSCHOOL survey were found for youth with a disability (n=317 students), although the proportions with poor emotional health, experiencing one or more risk factors, with fewer protective factors, and engaging in self-harm were slightly less extreme than for the LGBT population. Youth with disabilities also reported slightly lower rates for use of alcohol, tobacco and marijuana than the LGBT population (12–16% compared with 16–20% for the LGBT).

In the locality studies, mental health of youth with disabilities was only raised by one provider in Christchurch – despite over 120 interviews being conducted with agency managers, health and social service providers, and community leaders, as well as with more than 80 school-based professionals. More concern was voiced about LGBT youth, with some providers highlighting a need for more services and support for LGBT youth. This was a particular issue in rural areas (especially Hawke's Bay and Invercargill).

In the locality studies, some school staff (particularly those at state-integrated schools) said that the school discouraged the discussion of services targeting LGBT youth. For example, at one school the guidance counsellor said they had been asked to remove a poster in a public corridor promoting a LGBT youth support group as this did not fit with the values of the school. Students at some schools also highlighted subjects that were not allowed to be openly discussed at the school.

The higher reported use of online services by youth who identify as LGBT and youth with disabilities suggests that an increased focus for these youth through online supports, including e-therapy tools such as SPARX, could be a valid approach. As of June 2016, the Common Ground website included pages on supporting youth who are questioning their sexual orientation or gender identity, while The Lowdown website had information to support both youth with disabilities and youth who identify as LGBTI. In noting the absence of information about youth with disabilities on the Common Ground website, Domett and Coker (2016) suggested that more could be provided on the website for youth with disabilities as they "face similar issues regards bullying, identity, relations etc. as those struggling with sexuality and gender etc. but often feel invisible in the mental health or resource sites."

Unexpected transitions or potentially traumatic events appear to be common among youth

Nearly 76% of youth responding to the OurSCHOOL survey reported experiencing at least one potentially traumatic event – with 28% experiencing three or more of these events. Table 8 shows the types of events experienced by youth in the localities studied.

TABLE 08

Number of students experiencing unexpected transitions or potentially traumatic events

(Source: OurSCHOOL survey analysis)

Have any of these things ever happened to you?	Number of students responding Yes (total n=2,966)	Percentage
Death of a close family member or friend	1,979	67%
Learned about a serious/traumatic event affecting close family	1,255	42%
Divorce or parental separation	794	27%
Personally affected by an earthquake	456	15%
Been personally affected by violence	331	11%
Been involved in a serious accident that caused injury or disability	282	10%
Personally affected by another serious natural disaster	211	7%
Been told that you have a serious life-threatening or disabling physical illness	116	4%
None of these	549	19%

Potentially traumatic events, such as the death of a close family member or friend, or being involved in a serious accident, earthquake or other natural disaster, can lead to post-traumatic stress symptoms or 'full-blown' post-traumatic stress disorder (Copeland, Keeler, Angold, & Costello, 2007; Low et al., 2012; Perkonigg, Kessler, Storz, & Wittchen, 2000). Such events are also known to be related to other serious mental health disorders (Perkonigg et al., 2000). While developing post-traumatic stress symptoms or post-traumatic stress disorder is reported to occur at reasonably low rates, taking account of such life events or 'unexpected transitions' as part of YMHP could improve its overall effectiveness.

7.1.5 _ We were unable to assess how well youth not at school engaged with YMHP

Another target population for YMHP was youth not at school, particularly those who were not engaged in employment, education or training (NEET). Evaluators conducting the locality studies made specific efforts to include these youth. At each locality, discussion groups with youth were held at YOSS and other youth spaces with the intention of accessing the viewpoints of youth not at school. While this approach included some youth not at school, many youth participating in the youth discussion groups at YOSS were also students at local secondary schools.

Focus groups were held in Northland with youth who had been excluded from school and in Lower Hutt with teen parents and youth currently looking for employment. Intercept surveys with youth in setting such as parks failed to identify NEET youth.

Teen Parent Units in the relevant localities were invited to take part in the OurSCHOOL survey but none chose to do so. Therefore, the data collected from youth not at school (including NEET youth) for the Phase 2 evaluation was extremely limited – a total of 11 youth were spoken to.

Other studies provide evidence to suggest NEET youth are an important group to target. A recent publication from a UK longitudinal study of 2,232 twins born in 1994–1995 explored the characteristics of participants who were NEET at aged 18 (Goldman-Mellor et al., 2016). Compared with their non-NEET peers, NEET participants had significantly higher rates – generally at least double – of concurrent mental health (major depressive episode, generalised anxiety disorder or conduct disorder) and substance abuse issues. Significantly more of the NEET participants had experienced one or more mental health issues (depression, ADHD or conduct disorders) in childhood or adolescence (60% compared with 35% of non-NEET participants). Goldman-Mellor et al. (2016) used the results to argue that it is "crucial to provide mental health services to NEET youth as part of comprehensive ongoing efforts to support their transition into work or further education."

If youth not at school are to continue to be an important focus for YMHP, agencies should consider how to identify and work with them and how to monitor their wellbeing. It may be worthwhile to consider extending YMHP services to trade academies or other youth training or apprenticeship programmes.

7.2_ YMHP provided more resources and information, but it may not be enough

7.2.1 _ Some people still do not know how to support youth

Some providers and school staff, particularly teachers, indicated that they would like to have some training to help them be aware of when a youth may need additional support for their mental health issues (even if this is to refer them to the guidance counsellor or school nurse). Frontline staff who attended the MH101 workshops found them to be quite valuable, and these could perhaps be extended to other professionals working with youth.

Friends, families, whānau, and other community members also indicated that they did not know how to recognise a youth needing help, or where to turn for help. In most cases, they did not know about Common Ground, or other online services such as The Lowdown. Those using the websites were positive about the information they provided.

The 'Navigator Guidelines' (initiative #23) were not actively publicised and it was recognised by agencies that if social media were to be involved then this initiative would need to be tailored and shortened to be effective in this distribution form.

It is unclear at this stage whether the resources that have been created and are currently evolving would be sufficient to meet their needs, or if other resources are still required. In the first instance, the information that is available needs to be better promoted to increase awareness and therefore use of these resources.

7.2.2 _ Online resources not enough to support parent-youth relationships

A recent working paper by the National Scientific Council on the Developing Child (2015), which explored the factors underlying resilience, found that "it is the reliable presence of at least one supportive relationship and multiple opportunities for developing effective coping skills that are essential building blocks for the capacity to do well in the face of significant adversity." The authors observed that resilience requires relationships, not individualism. Superu (2015) and Fox et al. (2015) also established that the most widely reported contributors to youth resilience were positive relationships with caring adults and peers; effective caregiving and parenting; and effective teachers and schools. Positive parent-child relationships are highly protective against a range of adolescent problem behaviours and outcomes (Superu, 2015).

With the exception of Check & Connect (#9), those relationships were not a primary focus of YMHP. However, in three of the localities (Northland, Christchurch and Invercargill), parents, caregivers and school staff spoke about the lack of parenting skills of some in the community, the impact of family breakdown, and the role modelling of inappropriate behaviour to youth (e.g. how to deal with anger). In Christchurch, particularly, it was thought that the effects of the earthquake placed more pressure on parents, which sometimes led to them disengaging from the family. Resilience in the adult community was considered to be very low, and this has a direct impact on youth and their behaviour and mental health. A result of the lack of parental engagement saw school staff doing activities for all students that, in the past, had been taken on by parents, including running sports teams, in-school and out of school activities, and even behaviour management, which was referred to as 'parenting'.

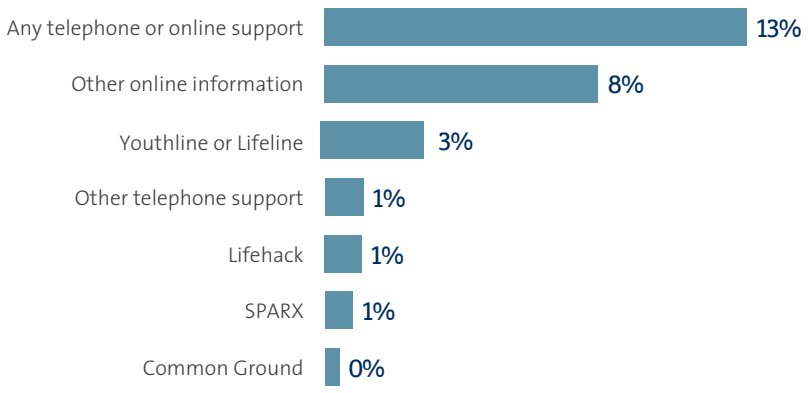
School staff and other service providers suggested parent and family education and support groups to help families who were struggling to establish or maintain suitable parent/youth relationships.

7.2.3 _ Youth may not seek help because they do not have someone to ask, there is a stigma attached to doing so, or they do not have access

On the whole, youth rely on their friends, families and whānau for information and support, whether for school-related or other issues and upsets – approximately 68% of youth responding to the OurSCHOOL survey indicated that friends and/or family would be the ones they asked for help if they were upset. Almost all students (94%) identified at least one person, either inside or outside school, who they could ask for help if they were upset. Guidance counsellors (7%) and teachers (10%) were not all that common sources of assistance inside school. Fully 6% of youth indicated there was no-one they would turn to for help if they were upset, either inside school or outside school.

Just over one in 10 (13%) of youth completing the OurSCHOOL survey had used some form of telephone or online support in the last 12 months (see Figure 8 below).

Figure 8 _ The total proportion of students who had accessed any telephone or online support in the last 12 months and the proportions who had accessed specific support
(Source: OurSCHOOL survey)



Rates of accessing online or telephone support were higher among those who said they would not ask anyone for help inside school or outside of school (21%) than for youth who identified at least one person they would ask for help (13%).

In discussions with youth, it appears that the stigma associated with mental health issues could be one reason for not seeking help. Speaking with youth as part of the locality studies revealed different reasons for not seeking help. Some had been told to 'suck it up' or 'be a man'. Others said they were embarrassed to ask for support for things they were upset about.

A stigma could stop youth from accessing support at school, particularly if they could be seen by other youth when they visited guidance counsellors, nurses or other health professionals, or if the school had practices that could identify students seeking help (e.g. different coloured absence slips showing that the student was going to the counsellor or nurse).

Some youth did not know where to find help – one observed: "Like I can think straight away of the Mitre 10 Mega ads, but I can't think of the depression ads, they aren't out there enough." Several youth commented that they had been told at the beginning of term or the school year about services available at school or elsewhere, but had forgotten how to access them when they actually wanted help.

Stigma and not knowing where to get help were not the only factors preventing youth from participating in and accessing services in their communities. Youth were also limited by:

- a lack of reliable public transport or not being able to afford public transport
- not being able to afford to pay for services or to access the internet
- lack of transport alternatives or living too far away to access services
- not feeling safe. Some youth said they felt unsafe at the local shopping centre and/or using public transport or school buses.

Clearly, some of these issues are not fully in scope for YMHP, and will be at least partially addressed by more co-locating of services in schools or at youth-friendly service locations such as YOSS. Increasing awareness of online services – including SPARX, The Lowdown, Common Ground and other 'apps' generated through the Social Media Innovation Fund (#15) or by other agencies (e.g. the 'telehealth' service and Aunty Dee) – will help further, particularly in relation to transport and access costs.

08

What hindered the Phase 2 evaluation?

Key messages

- Because the strategic evaluation had to be completed by June 2016, at the same time as the first YMHP 'cycle' of four years drew to a close, the summative evaluation could only report on how YMHP was progressing towards its outcomes.
- While there were examples of good-quality data collection and reporting, overall a lack of data limited the ability to report on outcomes.
- There were a range of reasons for the lack of data, including: data not being collected, or being collected only quite recently; changes in reporting templates; and services recording the number of youth seen, but not the outcomes achieved.
- It was difficult to engage with schools facing multiple demands for evaluations and research as well as the ongoing work of providing good-quality education for their students.

Key recommendations (full details in section 9)

- Take steps to build the data to inform future decisions.
- The Ministry of Health's System Level Measures Framework could be used to improve data collection and reporting.
- Simplify data collection requirements, potentially by implementing the modified outcomes framework measures (possibly as part of the System Level Measures).
- Simplify reporting requirements.
- Adopt a standard outcomes measurement tool for use by providers across a range of services, as this would help with building understanding and evidence.
- The Ministry of Education to consider data management in the school setting including establishing a moderator role to assist with scheduling requests across schools for evaluation, monitoring and research reports.

8.1_ The evaluation timing limited the ability to report on outcomes

From the outset, it was recognised the summative evaluation would be, in effect, a 'progress report' evaluating how well YMHP was progressing towards its outcomes. Given that the evaluation had to be completed just as the first four years of YMHP drew to a close, it would not be possible to measure long-term changes produced by the project. Instead, we had to draw on international and New Zealand evidence to estimate what the medium- to long-term outcomes of YMHP will be.

8.2_ Overall, a lack of data limited the ability to report on outcomes

There were examples of good-quality data collection and reporting – for example:

- SPARX (#4) collected and reported output data, including age and ethnicity, as well as measuring outcomes, as participants complete the Patient Health Questionnaire-9 modified for Adolescents (PHQ-A) at levels 1, 4 and 7 of the game.
- The PB4L School-Wide (#8) and My FRIENDS Youth (#10) evaluations used the Wellbeing@School survey as a pre- and post-assessment tool.
- CAMHS and AOD data on wait times and access (#7) and preparation of transition plans (#6) was readily available, although information about the completion of treatment and treatment outcomes was not.
- SBHS (#1) reporting requirements were revised in late 2015 to reduce the reporting burden for providers and to start to get nationally consistent data on service delivery. Data is collected on the number of students who visited school nurses and received a HEEADSSS assessment, and the number of 'interventions' that were for mental health concerns (including advice, treatment and referrals resulting from any visit or health assessment). Data is broken down by ethnicity. From the YMHP perspective, it would be helpful if the data collected distinguished between (1) other health assessments and HEEADSSS assessments and (2) outcomes of both 'visits' and HEEADSSS assessments.
- The DHB primary mental health reporting template, including data collection for youth aged 12–19 (Youth Primary Mental Health #3), was implemented in July 2014, making reporting easier and more consistent. Ethnicity data is collected, along with: numbers of extended consultations, brief interventions, packages of care, and group therapy sessions; the average wait time from referral to when the youth is first seen; and the average number of sessions in a treatment type. Unique identifiers are not recorded, nor is data for treatment completed or abandoned, or outcomes (e.g. pre- and post-assessment). There is no recording of the number of youth receiving HEEADSSS assessments (outside of SBHS), the number of referrals made, or the outcome of these referrals.

However, the data limitations noted above for SBHS and Youth Primary Mental Health, combined with limited or no data for other initiatives, meant we had to estimate the short-term outcomes for some initiatives. In some cases, we could not clearly identify even the outputs from a particular initiative (e.g. the number of youths seen by a service or the extent of their engagement), meaning that the initiative had to be analysed qualitatively in the cost-benefit analysis. The lack of uniformity and consistency of data collected across YMHP initiatives also meant we were unable to analyse data on different ethnic groups, specifically Māori and Pacific youth, because in the majority of cases this data did not exist in a form that could be used in cost-benefit analysis.

The reasons for the shortcomings in data ranged from no data (or no meaningful data) at all being collected (e.g. initiatives #13, #16, #20 and #26), to the initiatives being implemented only quite recently (e.g. #23), to the initiative pilot not being completed (e.g. #7 (exemplar services), #9 and #14), to improved reporting templates being introduced partway through the four-year period (e.g. #1 and #3). Where there was counting of the number of youths seen (as for Youth Primary Mental Health #3), no unique identifiers (e.g. NHI number) were recorded, which means there may be double counting where the same youth accesses services in different reporting quarters. The lack of unique identifiers also pre-empts tracking long-term outcomes for youth, which is critical for assessing the effectiveness of YMHP.

While these kinds of data issues are not uncommon in the social sector, it is generally accepted that the situation needs to improve.

Data was not only limited for YMHP initiatives as implemented in New Zealand, but in some cases we also found very little solid evidence in the international literature to support expectations about what outcomes an initiative might deliver. It was clear that evidence had been misunderstood (refer to PwC (2016), 'Data and Information Sources' for further discussion). Research and evaluation reports require careful assessment in order to understand what the evidence is showing and to check its validity and relevance for the initiative or policy under investigation.

The devolved nature of service delivery at the local level, differences in provider systems for recording information, and the priority placed on reporting meant the consistency and quality of the information reported back to funders varied. Providers in the locality studies commonly complained about the time needed to comply with reporting requirements. Monitoring templates were provided by central agencies and focused on usage information such as the number of youth seen. NGOs and YOSS commonly had multiple contracts with multiple agencies (e.g. MSD, MOH, DHB, MOE, and Ministry of Justice) and were often expected to complete multiple reporting templates.

8.3 It was difficult to engage with schools

Evaluators made multiple attempts to engage with all secondary schools in each locality, and in three localities they had to broaden the size of the area to include further schools, in order to have a good sample for the evaluation. The main reason for difficulties in engaging schools was that there were multiple demands on schools to participate in evaluations and research projects. This was particularly true for the decile 1–2 schools in the study localities, with the effect that none of the decile 1 schools that were approached agreed to participate.

Wharekura within the six locality sites were also invited to take part and, after repeated contact and onsite visits by Superu kaumātua, two chose to participate in the evaluation.

8.4_ The System Level Measures Framework could be a means to improve data collection and reporting

In April 2016, as part of its 'refresh' of the New Zealand Health Strategy, the Ministry of Health introduced the System Level Measures Framework, an outcomes-based approach to performance measurement intended to guide the delivery of constantly improving health services. The System Level Measures Framework will emphasise measuring the performance of the whole system as well as its component parts. DHBs will include appropriate measures in their 'Improvement Plan' as part of their Annual Plan, and will report on the measures quarterly or six monthly.

A System Level Measure (SLM) has been identified for youth for implementation in 2017/18: 'Youth access to and utilisation of youth appropriate health services ("Young people make good choices"). The 'outcome' sought has been suggested as 'Improved access to and utilisation of youth appropriate health services'. Examples of potential contributory measures include: waiting times for youth access to mental health and alcohol and other drug services; and access to and utilisation of services such as Youth One Stop Shops and School-Based Health Services.

The proposed SLM and outcome are not in fact outcomes – access and utilisation of services are distinct from making a difference in, or changing, the health and wellbeing outcomes for a youth.

We recommend that MOH consider revising the System Level Measure to an outcome for youth, as this is what the system is meant to deliver. While the System Level Measures Framework is intended to cover all aspects of health, the 'ultimate outcome' for YMHP ('Better mental health and wellbeing for young people') could be an appropriate outcome encompassing all aspects of health and wellbeing – the phrase 'mental health' could be replaced with 'health' if necessary. Access and utilisation would be contributory measures, not outcomes.

Output and medium- to long-term measures should be drawn in from the revised outcomes framework (see Appendix A). The adoption of an outcomes measurement tool (discussed in section 8.5) would create a common understanding of outcomes.

Furthermore, an important improvement to any measurement system will be the inclusion of a unique identifier, to facilitate data matching in order to track long-term outcomes. It may be that providers will have to modify their patient consent forms to allow data matching to occur.

8.5_ Adopting a common outcomes measurement tool would help build understanding and evidence

To report on the short- to medium-term outcomes for youth mental health and wellbeing, one or two simple outcomes measurement tools could be adopted for use across the social sector. An ideal tool would be validated, would align with specialist service outcomes, and would provide consistent outcomes across providers. It could be set up in patient management systems or work as stand-alone modules in software such as Excel. Several potential measurement tools are outlined in Box 3 below.

Adopting a consistent outcomes measurement tool to use 'across the board' would greatly help with building evidence to use in deciding what programmes to offer, which to maintain, and which to discard, as noted by Gluckman in his 2011 report. It would also allow the outcomes to be assigned meaningful monetary values in a cost-benefit analysis or other economic evaluation.

Box 3: Potential validated outcome measures of emotional wellbeing for use with youth

Health of the Nation Outcome Scales for Children and Adolescents (HoNOSCA) is a brief measure, including 15 items measuring symptom severity and social functioning. Outcomes are measured through changes in ratings over time. MOH mandated HoNOSCA in 2008 as a measure for CAMHS.

WHO-5 measures psychological wellbeing and screens for emotional health concerns. The scale measures three underlying factors: positive mood (good spirits and relaxation), vitality (being active and waking up fresh and rested), and general interests (being interested in things). It was used in the Youth 2000 survey series.

Strengths and Difficulties Questionnaire (SDQ) is a brief behavioural and emotional screening questionnaire with four difficulty scales (emotional symptoms, conduct problems, hyperactivity/inattention and peer relationship problems) and one pro-social scale. It was used in the Youth 2000 survey series.

RADS-SF is a shorter version of the Reynolds Adolescent Depression Scale (RADS). It was designed to provide a brief measure to screen for depression among adolescents, and uses 10 items with four Likert response options. It was used in the Youth 2000 survey series.

Kessler-10 (K10) is a 10-item questionnaire yielding a global measure of distress based on questions about anxiety and depressive symptoms in the most recent four-week period. The K10 has been used for people aged 15 years and over as part of the New Zealand Health Survey.

Outcome Rating Scale and the Session Rating Scale (ORS and SRS) are both four-item questionnaires with a self-reporting scale for clients to indicate how they have felt over the last week (for the ORS) and about the therapeutic session (for the SRS). The SRS was designed to help assess the 'alliance' between the health professional and patient, as this has been found to be a strong predictor of outcomes from therapy.

Patient Health Questionnaire 9 (PHQ9 or modified adolescent version PHQ-A) is a multi-purpose instrument for screening, diagnosing, monitoring and measuring the severity of depression. PHQ-A is used for SPARX.

Short Form 36 (SF-36) measures health and emotional wellbeing over the past four weeks. The SF-36 has been used for people aged 15 years and over as part of the New Zealand Health Survey.

An alternative, New Zealand-derived, tool is the Youth Outcome Measure and Model (YOMM), which was developed to track the changes for youth using Kapiti Youth Services. The model and measures were designed to take account of 'markers' of resilience and indicators of wellbeing associated with long-term positive outcomes for youth. All YOSS have begun using YOMM for reporting in the second quarter of 2016. The assessment is more complete, but the tool has yet to be properly validated.

09

How can we improve the effectiveness of YMHP?

Key messages

The following steps could be taken to improve the effectiveness of YMHP:

- Make changes within the YMHP system – at the national level, within the community, and in schools – to ensure that long-term outcomes are achieved.
- Take actions to increase the effectiveness of existing YMHP initiatives by: supporting their ongoing implementation and/or activity; reviewing the mixture of initiatives 'on offer' to ensure that the most effective, evidence-based initiatives are available; and considering removing initiatives from YMHP where the outcomes targeted are not youth mental health and/or wellbeing.
- Promote awareness of existing resources, information and services to encourage greater usage.
- Take up opportunities for additional impact, such as expanding the scope of YMHP to include all youth aged 12–19, increasing the initiatives available in Canterbury, and targeting youth NEET, youth identifying as LGBTI, and youth with disabilities.
- Take steps to build the data to inform future decisions.
- Carry out further research and evaluation activities, such as reviewing the age range of YMHP, repeating the cost-benefit analysis, undertaking further outcome evaluations of initiatives, and doing research on Māori, Pacific and New Zealand European wellbeing, protective factors and risk factors.

Youth is a period of significant known transitions, including growing from a child to teen to adult. It includes establishing intimate relationships, shifting from primary to secondary school, and from secondary school to tertiary study or training or work. It is also a time of potentially traumatic events, such as a death in the family, a friend's suicide, an earthquake, or a family break-up. Any of these can contribute to a loss of resilience, and give rise to mild to moderate, or even severe, mental health issues.

A growing body of evidence shows that the capabilities that underlie resilience can be strengthened at any age, and it supports the existence of YMHP and its focus on youth aged 12–19 with, or at risk of, mild to moderate mental health issues.

Since it was established in 2012, YMHP has successfully implemented all 26 initiatives in its portfolio. As a result, more youth were identified, supported and treated. We found some evidence of positive change for youth in the short term and, drawing on evidence from overseas and New Zealand studies, we concluded that more youth will experience better medium- to long-term life outcomes as a result of YMHP. The CBA found that YMHP delivered a BCR of at least 1.0 and that about 1,300 DALY were gained. Overall, a lot has been accomplished, there is some evidence of positive short- and long-term outcomes, and a BCR of at least 1.0 indicates a positive return on investment.

We identified some useful tools for assessing initiatives going forward: gross economic benefit, DALY, and the relative contributions of different components to YMHP as a whole.

We also identified a number of actions that could be taken to improve the system YMHP operates in, and to improve the delivery and effectiveness of the different system components and initiatives. We saw opportunities to expand the impact of initiatives by targeting other population groups, and to build the data to inform future decisions and help identify where to next, as well as opportunities for further evaluation and research. All of these are discussed further in the sections below.

9.1_ Make changes within the system to ensure long-term outcomes are achieved

YMHP has operated as an integrated programme at the national level. It is less integrated at the local level, but there are structures and planning in place that could address this.

Overall, the strengths-based or positive youth development approach that was intended to be part of YMHP is not overly present in the implementation of initiatives. The school-based PB4L programmes are strengths-based, but many other services appeared to be treating youth as a problem to be managed, rather than a strength to be built on. It is worth exploring how to incorporate the strengths-based approach into the Youth SLAT (or its equivalent) structure.

To ensure that the long-term results for improving youth mental health and wellbeing are achieved, we recommend the following:

Within the community

- Continue cross-agency leadership at the national level.
- Assist the integration and improvement of local delivery systems and strengthen the interface between schools and providers of health and social services. Among other things, this could include supporting and strengthening the ongoing implementation and operation of Youth SLAT (#5) and the Youth Primary Mental Health initiative (#3).
- Consider ensuring that Youth SLAT (or its equivalent):
  - are supported to be genuinely cross-sectoral, including regional representation by MSD, MOE and/or schools (possibly through the communities of schools where these exist)
  - give proper consideration to including youth and community representation
  - are adequately resourced to meet local needs
  - are given the responsibility of further increasing co-location and increasing the accessibility of services.
- Work to clarify what causes the 'choke points' in the system, particularly in transitions from low-end primary care (e.g. identification) to high-end primary care (support and/or treatment), and transitions from primary care to secondary care (from identification and/or support to treatment). Efficiency at the referral or transition points within the system could improve YMHP's effectiveness.
- Further promote the SPARX e-therapy tool:
  - to providers – particularly for situations where wait times cannot be avoided and/or where youth don't quite meet the threshold for referral onwards
  - to youth who may not have others to turn to, or who may have other access issues.
- Support Youth SLAT (or its equivalent) in providing workforce development for GPs, nurses, and general practice receptionists, to improve their competency in working with youth in primary care. In the first instance, this could be by providing youth-oriented MH101 workshops (#21).
- Support Youth SLAT (or its equivalent) to extend HEEADSSS assessments in higher decile schools and/or the community.

- Simplify reporting across the youth mental health sector, while incorporating more robust measures in the reporting (as found in the revised outcomes framework in Appendix A).
- Establish a forum or other mechanism for sharing information between DHBs and other providers about what works and best practice, both at the system level and for providers.
- Consider using the System Level Measures Framework to monitor the health of the system.

Within schools and school communities

- Follow through on the reviews that were completed as part of YMHP, particularly guidance counselling (#12) and wellbeing in schools (#11):
  - Consider embedding expectations about the role of schools in creating and managing students' wellbeing as a statutory requirement in the Education Act 1989.
  - MOE to clarify its expectations as to how schools are meant to engage with the resources of initiative #11.
  - MOE has convened a Guidance and Counselling Working Group with representation from the Post-Primary Teachers' Association (PPTA) and the New Zealand Association of Counsellors, which is currently developing a work programme to respond to the report recommendations and improve the quality of guidance and counselling for youth in and across schools (#12). We recommend that the Working Group consider the characteristics of good guidance and counselling practice outlined in ERO (2013b), including the issues of where space is made available for these services, the information provided to students, and the role of the guidance counsellor in school pastoral care and as part of the broader staff team.
- Progress work on co-locating services in schools, preferably through Youth SLAT (or its equivalent), as discussed above.
- Revisit the guidance for schools on AOD programmes (#13). The guidelines were published on the MOE website (health.tki.org.nz) without any wider distribution, and there has been a lack of clarity about how they should be used. MOE could further this by working in partnership with the Health Promotion Agency.

9.2_ Take actions to increase effectiveness of the existing initiatives

Where evidence indicates that an initiative will contribute to both short- and long-term outcomes, continuing to support the initiative to reach its potential is the most effective action to take. This would be true for: SBHS (#1), YPMH (#3), YOSS (funded outside YMHP, although contracted to provide some Youth Primary Mental Health services), SPARX (#4), Youth SLAT (#5a – as discussed above), CAMHS and AOD access and follow up (#6 and #7), and the use of HEEADSSS (#2 and #1).

The evaluation has also shown there are other actions that could improve the overall effectiveness of YMHP, such as reviewing the mix of initiatives within and across system components. Some components, particularly early identification and support, show bigger gains in youth mental health and wellbeing than others, although the cost-utility analysis (using DALY) reveals that all components contribute to better youth mental health and wellbeing. It may be possible to strengthen the effectiveness of a system component by introducing other evidence-based initiatives that could be more effective than ones currently being funded. It is useful to consider also the balance between universal versus targeted, and between prevention and promoting wellbeing versus treatment resources and services.

Several YMHP initiatives included pilots, namely CAMHS and AOD services (#7), Whānau Ora for youth mental health (#22), and PB4L My FRIENDS Youth (#10), PB4L Check & Connect (#9) in conjunction with YWiSS (#14). Early impact evaluations for all of these were positive, although the cost-benefit analysis revealed that some may not deliver the expected **youth mental health outcomes** in the long term and had high costs relative to projected benefits. We recommend agencies conduct further reviews (or a high-quality evaluation) of the evidence underpinning some initiatives and consider their relevance within the context of youth mental health. The CBA report (PwC, 2016) summarises valuable information on both the 'reach' and 'effectiveness' of YMHP initiatives, in the context of youth mental health. The research used in that report to assign monetary values to the youth mental health outcomes could have wider applications beyond the initiatives included in YMHP.

We note that where evidence indicates a particular initiative does **not** influence youth mental health outcomes, the initiative may achieve other valid outcomes. For example, Maynard et al. (2014) found that the PB4L Check & Connect programme had positive impacts on disciplinary referrals, and Horner et al. (2009) found statistical evidence that PB4L School-Wide was associated with perceived safer environments.

Where students feel safe and there are fewer behavioural disruptions in class, an overall lift in wellbeing is expected. A more collegial and supportive environment can also help foster self-esteem and friendship. Improved wellbeing, self-esteem and friendship are unquantifiable benefits that have the potential to strongly influence youth wellbeing and mental health outcomes. Some New Zealand research found youth with low self-esteem grew up to have more criminal convictions in adulthood than those with high self-esteem (Trzesniewski et al. 2006).

Other factors may need to be taken into account in this review, such as the fact that YWiSS may have synergies with Multi-Agency Support Services in Secondary Schools and Social Workers in Schools. The scalability of a pilot may be affected by other factors such as cost or whether it can be implemented with fidelity. For example, MOE officials interviewed during the evaluation observed that the current business model for My FRIENDS Youth (#10), which requires workbooks to be bought for each student as well as dedicated MOE staff resources, may be unsustainable. In their evaluation of that initiative, MacDonald et al. (2015) also identified staff turnover in schools as a potential risk to being able to implement the programme with fidelity, as teachers have to complete two days' training before they facilitate My FRIENDS Youth.

Finally, lack of awareness of online resources and support services was apparent across all localities, both in the school environment and the wider community. Efforts to promote resources and services already in place through YMHP will generate greater usage and contribute better outcomes.

9.3 Take opportunities for additional impact

There are many opportunities to increase the impact of YMHP. The first and most important is to acknowledge that adolescence is a time of high vulnerability, and expand the scope to include all youth aged 12–19.

Other opportunities include the following:

- Use the findings from the cost-benefit analysis as 'yardsticks' (e.g. gross economic benefit, DALY, BCRs) for considering new initiatives.
- Review and gain a better understanding of the existing evidence base. We found more than one instance where the evidence base for an initiative was not well-understood, and this led to false expectations about medium- to long-term outcomes associated with the initiative.
- Target other youth populations, in addition to Māori and Pacific youth:
  - youth in Canterbury – evidence suggests there is more support required for youth who, despite implementation of initiative #26, are still experiencing greater mental health and wellbeing issues. In the absence of monitoring/data, it is impossible to know if the current initiative is effective, and urgent action is required to (1) remedy this situation and (2) review the mixture of initiatives available in the region
  - youth identifying as LGBTI
  - youth with disabilities
  - youth who are not at school, particularly those who are NEET – although we acknowledge it is currently difficult to know how well they are served through YMHP, as insufficient data is collected on this
  - wharekura, where engagement has so far been very limited
  - youth experiencing unexpected transitions (e.g. death or serious illness of a close family member, separation, earthquakes or other natural disasters).
- Address ongoing stigma-related issues for youth and their families and whānau.
- Increase the focus on resilience and supportive adult relationships, particularly between youth and their parents and caregivers.
- Support, monitor and evaluate innovative tools and approaches (e.g. Aunty Dee, telehealth). Innovative interventions need to be set up with appropriate counterfactual/comparator groups and monitoring to gather evidence.

9.4_ Take steps to build the data to inform future decisions

When planning the next stage of YMHP, a priority should be to address the data issues identified through the Phase 2 evaluations. Particular actions include establishing consistent metrics for measuring youth outcomes at the initiative level, in order to permit better measurement and assessment of effectiveness and to facilitate decisions about future investments.

The outcomes framework has been updated to assist with directing the data collection. In particular, data sources have been identified as far as is possible. In some cases, there are too many measures proposed: further discussion by key stakeholders (and survey data collectors) could clarify which ones should be kept.

A key focus of the framework is the youth population outcomes (Better mental health and wellbeing; Improved resilience among youth; Better access to appropriate information and resources for youth and their families). Measures drawing on existing surveys have been identified for those outcomes. As at June 2016, it is unclear whether or not Youth 2000 will continue as a survey, so other sources have been identified in its place, including the Health Promotion Agency's New Zealand Mental Health Survey.

The New Zealand Mental Health Survey has a number of measures that could be used for the outcomes framework. The survey includes a series of questions exploring: connectedness to Māori culture; perceptions of mental illness and its treatment; interactions with other people who have or have had mental illness; and attitudes towards severe mental illness. It includes the PHQ-9, K10 and GAD-7. However, there are potential issues with the New Zealand Mental Health Survey that need to be addressed: its sample size for youth aged 15–24 (the 2015 survey included 334 youth); the ability to report by ethnicity for this age group; access to data (an agency has to apply to have access to it); and sustainability of funding.

The remaining outcomes in the framework (Better access to timely and appropriate treatment and follow-up; Early identification of mild to moderate mental health issues in youth; More supportive schools, communities, social and health services; and Improved knowledge of what works to improve mental health) are more aligned with individual initiatives.

Other recommendations to improve and simplify the collection and reporting of data (and outcomes) include the following:

All agencies

- Continue to require regular reporting on YMHP initiatives and activities (three-monthly or six-monthly).
- Require the recording of a unique identifier (either NHI or NSN) for reporting on youth service attendance and short-term outcomes. This will facilitate the monitoring of long-term outcomes using IDI or other such datasets.
- Ensure reporting includes details of ethnicity, particularly New Zealand European, Māori, Pacific, Asian and Other.
- Consider how information technology could be used to improve the timeliness, accuracy and completeness of the mental health data collected. It appears feasible for much monthly reporting to be completed online with simple templates.

Ministry of Health

- Consider using the System Level Measures Framework to set an appropriate high-level outcome/SLM and contributory measures for youth mental health and wellbeing.
- Work with stakeholders to select one or two short-term mental health and wellbeing outcome measurement tools for use across the sector, and include this in the SLM Framework (or appropriate alternative framework).
- Draw on the revised outcomes framework for the lower-level outcomes and contributory measures in the SLM Framework (or its alternative).
- Ensure that SBHS, Youth Primary Mental Health, and any other DHB reporting aligns with the SLM Framework (or its alternative). DHB reporting requirements for providers and PHOs should also align with the framework.
- Continue MOH's comprehensive process for engaging with DHBs on their reporting performance through a process for data collection, analysis and feedback. If necessary, consider sanctions for continued poor reporting.
- Continue MOH's annual review of reporting requirements and measures to ensure the data is the best and most accurate information to be collected.

Ministry of Education

- Consider data management in the school setting, including the possibility of an omnibus survey, such as Youth 2000 (currently being reviewed by officials, who are considering the possibility of reinstating this or a similar survey on a sustainably funded basis) or a revised version of Wellbeing@School. If Wellbeing@School were chosen, MOE would have to address data access issues.
- Consider establishing a moderator role, either at regional level or within communities of schools, to assist with scheduling the many and varied requests across schools for their students to complete surveys or interviews for monitoring, reporting, or research purposes.

In making these recommendations, and refining the outcomes framework, we have been very aware of both 'respondent burden', particularly for schools, and 'reporting burden' for providers. Where it was appropriate we have identified existing reporting requirements, data collection tools or surveys, rather than suggesting that new ones be developed. Some providers may experience a significant increase in reporting burden, simply because there was no requirement to report previously (as has been the case for initiative #26), or where the reporting appears to have been quite limited.

All agencies could work together to see if there are overlaps in reporting requirements that could be addressed or simplified.

Better data collection will facilitate additional or new evaluations of initiatives.

9.5 Future research and evaluation activities

One issue raised several times in the evaluations is age. YMHP is focused on ages 12 to 19. However, the CBA (PwC, 2016) noted that people into their early 20s may face similar issues to teenagers. Stakeholders in the localities observed that students in intermediate school faced some of the same issues as older youth. The Treasury adopted an age group of 15–24 for the Youth Funding Review, while different ages are proposed as part of the Child, Youth and Family review. The widest 'youth' age range is probably 10 to 24 or 25 years of age, although initiatives tend to work with some sub-set of that range.

While 12–19 year olds definitely experience several known transitions, there is merit in reviewing the possibility of extending the age range of YMHP, if it facilitates the use of evidence and aligns it better with other existing New Zealand programmes.

As the quality, completeness and volume of YMHP and New Zealand youth mental health data improves, it may be worth repeating the cost-benefit analysis and cost-utility analysis. In repeating this type of evaluation, additional and deeper levels of analysis could be included, such as Monte Carlo simulation (which is a type of risk analysis that provides a range of possible outcomes and probabilities that may occur as a result of a specific choice of action).

From our research, we have discovered that a lack of high-quality quantitative data on the effectiveness of youth mental health initiatives and interventions is a common problem worldwide. Only two of the initiative evaluations conducted as part of YMHP included the counterfactual, or a comparison group. In some cases there was no pre- and post-assessment of impact and no baseline could be established. This limits the usefulness of these evaluations in building the evidence database to support agencies in making investment decisions.

Every effort should be made to commission good-quality evaluations of YMHP and individual initiatives (or any other social sector initiatives), including a comparison or non-intervention group, and to establish baseline measurements and sufficient sample size and timeframe to measure the impact of an initiative. This will be greatly facilitated by ongoing monitoring and reporting based on the outcomes framework.

Consideration should be given to evaluating those initiatives within YMHP that are yet to be evaluated, as well as to commissioning further outcomes-focused evaluations where time limitations affected the ability to assess short-to-medium or long-term outcomes.

As we discuss in section 7, there appears to be a need for further investigation and research into Māori, Pacific and New Zealand European mental health and wellbeing, and risk and protective factors. Superu will be doing a further explanatory analysis of the OurSCHOOL data that will consider these issues, and we intend to cross-validate the findings from that analysis, as far as is possible, with analysis of Youth 2012 data. Superu also has a work programme considering conduct problems, which may help to explain differences in outcomes for Māori, Pacific and New Zealand European and other youth.

It would also be relevant to further investigate the relationship – particularly causality – between alcohol/substance abuse, mental health and wellbeing, and offending/re-offending, given the current conflicting evidence on this topic.

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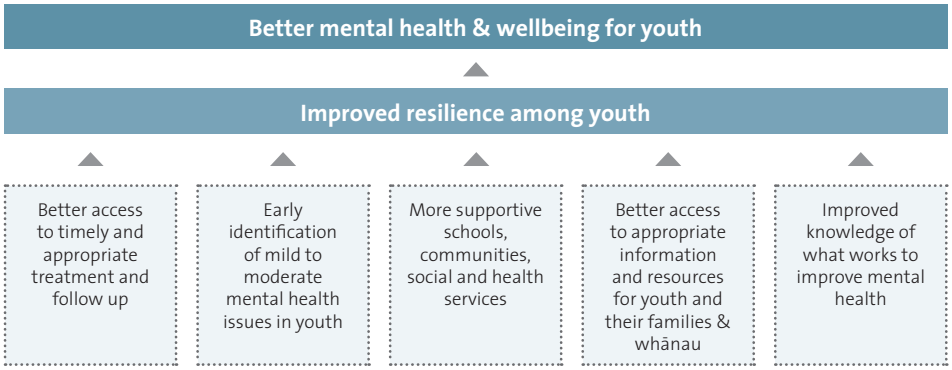
Appendix A:

YMHP logic model and revised outcomes framework

Figure 9 _ Youth Mental Health Project Logic Model

Figure 10 _ Outcomes Framework for Youth Mental Health and Wellbeing

The figure below is a summary of the high level outcomes in the Outcomes Framework shown in Table 9.



All measures are able to be segmented by gender and ethnicity; some may be able to be segmented by region.
Further refinement is required, based on establishing suitable and reliable data sources.

TABLE 09

Outcomes Framework for Youth Mental Health and Wellbeing

Outcomes	What we expect to see	How we will measure what we expect to see (Outcomes measures)	Information Sources
BETTER mental health & wellbeing for youth	Improved mental health	**Prevalence of anxiety, depression, serious emotional and behavioural problems in youth** Proportion of youth, aged 15-24, with a score of 12 or more on the K-10 (Kessler Psychological Distress Scale) Proportion diagnosed with common mental disorder, aged 15-24 (aligns with YFR, although YFR is aged 25-34)	NZHS (MOH) *NZMHS (HPA) also completes K10, PHQ-9, GAD-7*
		Improved employment, education, and training rates for youth Proportion on main benefits (BPS 1) NEET rates, aged 15-19 / 20-24 (aligns with YFR) Proportion in employment, aged 25-29 (aligns with YFR – longer term outcome measure?) Median hourly earnings, people aged 25-29 (aligns with YFR – longer term outcome measure?) Proportion with a driver licence (aligns with YFR, although validity in long term and in main urban centres is questionable?) Proportion of 18-year-olds with NCEA Level 2 (BPS 5) Literacy rates at Level 2 or above in ALL survey, aged 25–34 years (aligns with YFR – longer term outcome measure?) Numeracy rates at Level 2 or above in ALL survey, aged 25–34 years (aligns with YFR – longer term outcome measure?) Proportion of 22 / 25-year-olds that have completed a tertiary qualification at L4 or above (aligns with YFR – longer term outcome measure?)	IDI (MSD, MBIE, MOE) – would expect *YMHP effects to come in 3-5 years' time*
	Reduction in risky behaviours	**Prevalence of self-harm; alcohol and substance use and misuse, including tobacco, by youth** Proportion of young people, aged 15-17 / 18-24, that participate in hazardous drinking (i.e. scored 8 or more on the Alcohol Use Disorders Identification Test (AUDIT)), (aligns with YFR, although YFR is aged 25-34) Proportion of young people, aged 15-17 / 18-24, who currently smoke cigarettes Proportion of young people presenting at emergency department having deliberately self-harmed in the past 12 months Number of youth suicides per annum (may best be considered on a rolling 3 year average)	NZHS / HPA Attitudes & Behaviour towards Alcohol Survey NZHS / Census MOH

Outcomes	What we expect to see	How we will measure what we expect to see (Outcomes measures)	Information Sources
Improved resilience among youth	Youth adapt to stress and challenging life situations	**Youth report they have strategies to deal with distress** Proportion of youth, aged 15-24, reporting they are able to cope with everyday stress Proportion of youth, aged 15-24, reporting they know where to get help for depression or anxiety Proportion of youth, aged 15-24, reporting they can rely on support from family or friends when needed	NZ Mental Health Survey (NZMHS HPA)
	Youth have positive attitudes about themselves	**Youth report good self-esteem, life satisfaction, confidence** Proportion of youth aged 15-24 who reported that they were 'very satisfied' or 'satisfied' with their life as a whole Proportion of youth aged 15-24 who reported they feel the things they do in life were very worthwhile or worthwhile overall	NZ General Social Survey (NZ GSS) or NZMHS
	Youth are engaged at school and in the community	**Youth participation in organised sports or cultural activities; adult advocacy at school; values and school outcomes; intellectual engagement; effort at school; interest and motivation at school; expectations for academic success; attendance at school; student aspiration; cultural identity** % of schools reporting that Māori students / Pacific students have opportunities to take part in co-curricular cultural activities Proportion of young people aged 15-24 who reported having done voluntary work for a group or organisation in the last four weeks. Number of youth participating in sport / cultural activities either at or outside of school – NOT COLLECTED Proportion of youth, aged 15-24, reporting a strong connection with culture *Impact of school guidance counsellors (measure to be determined)*	Youth 2000 (or equivalent) NZCER National survey of secondary schools NZ GSS NZMHS MOE / ERO
		Trends in attendance, disruptive student behaviour Truancy rates Stand down, suspension, exclusion, expulsion rates Rate of office disruptive referrals (ODR)	MOE
	Youth have connected relationships	**Youth report positive relationships; a sense of belonging; not being lonely** Proportion of youth, aged 15-24, who said the amount of contact they have with family and friends who don't live with them is 'about right' Proportion of youth, aged 15-24, who reported feeling isolated from others or lonely 'all of the time' or 'most of the time' in the last four weeks Proportion of youth, aged 15-24, who report trusting most people in New Zealand Proportion of youth, aged 15-24, who had been treated unfairly or had had something nasty done to them because of the group they belonged to or seemed to belong to (hereafter called discriminated against) in the past 12 months Proportion of youth, aged 15-24, with telephone access (either landline or cell phone) and internet access in the home Proportion of youth, aged 15-24, reporting they felt excluded from a social situation and/or at work in the past year	Youth 2000 (or equivalent) NZ GSS (NZMHS has similar) Census / HLFS NZMHS

Outcomes	What we expect to see	How we will measure what we expect to see (Outcomes measures)	Information Sources
Better access to timely and appropriate treatment and follow up	Timely & appropriate access to specialist services	**Number of youth accessing child & adolescent mental health & AOD services** Number of youth with positive change on HoNOSCA (or other outcome assessment tool) Number of youth returning to care post discharge Proportion of youth completing transition plan – NOT COLLECTED Proportion of youth exiting treatment with follow up / transition plan in place Proportion of youth completing treatment (ended routinely – coded DR) Number of youth starting treatment	MOH Transition Plan reporting REQUIRES CHANGE TO DHB REPORTING
		Waiting-times for youth to access treatment are within good practice timeframes (AOD & mental health) Average waiting time between first visit and second / between second and third Average waiting time from assessment to treatment Average waiting time from referral to assessment (meets standard)	MOH Waiting Time Report Dashboard
		Providers know when and who to refer to treatment or other services	NO SOURCE IDENTIFIED
	Access to primary mental health interventions	**Number of youth receiving brief interventions / counselling sessions/ group therapy provided by PMH clinicians** Number of youth with positive changes as shown in YOMM reporting (YOSS) Number of youth with positive changes on the HoNOSCA (or outcomes assessment tool) Number of 'packages of care' issued to youth Number of youth who received brief intervention counselling Number of youth who completed group therapy Number of referrals issued to youth Number of referrals redeemed by youth – NOT COLLECTED – change to report?	MSD MOH DHB YPMH REPORTING Primary Care Quarterly Report
		Quarterly reporting of expenditure for specific YMHP services, as a supplement to how many youth were seen / treated	MOH reporting
	Effective care pathways connect youth to services	Schools, health and social services providers use care pathways Schools, health and social services provide integrated care (joined up services) to youth at risk	NO SOURCE IDENTIFIED
	Access to self-directed care	**The number of youth who use e-therapy to manage mild & moderate mental health** Number of youth registering for SPARX – other e-therapy tools could be added as they come online Number of youth completing >4 modules of SPARX (completing >4 modules is considered to cause a positive change in youth mental health status) Number of youth aged 12-19 who have an improved PHQ-A score on SPARX	Website analytics

Outcomes	What we expect to see	How we will measure what we expect to see (Outcomes measures)	Information Sources
Early identification of mild to moderate mental health issues in youth	Youth with mild or moderate needs are identified earlier	**Number of youth screened** Number of youth referred to other MH services as a result of HEEADSSS Number of youth received a HEEADSSS check at school Number of youth received a HEEADSSS check via other services – NOT COLLECTED	MOH DHB SBHS report REQUIRES CHANGE TO DHB YPMH REPORT
	Youth access to primary health services	**Youth visit primary health services (including GPs, Nurses, YOSS, school-based health services)** *Unclear as to what is desirable trend?* Proportion of young people aged 15-24 visiting GP / Nurse in past 12 months Mean number of visits with GP / Nurse in past 12 months by young people aged 15-24	NZHS
More supportive schools, communities, social and health services	Youth perceive their schools, communities, social and health services as supportive	**Youth feel supported: family and whānau advocacy outside of school, advocacy at school by an adult** Proportion of youth aged 15-24 reporting that they strongly agree or agree they can always rely on a friend or family member for support if they need it	Youth 2000 (or equivalent) NZMHS
		Youth can identify a person/service(s) that supports them Proportion of youth, aged 15-24, reporting it would be very easy or easy to find someone to help them in times of need	NZMHS
		Youth consider health and social services are youth friendly	ADD TO AN EXISTING SURVEY?
		Youth agree they would access existing services if they needed to Proportion of youth, aged 15-24, reporting that they would not seek help from 'nobody/nowhere, would not seek help' if they thought they were experiencing (1) depression or (2) anxiety	NZMHS
	Access to appropriate services	**Youth, families and whānau consider services as accessible (e.g. opening hours, location, cost , stigma, culturally appropriate)** Proportion of youth aged 15-24 reporting they wouldn't seek help for depression or anxiety because it would be embarrassing, wouldn't want to be judged, or wouldn't want to admit I had a problem Proportion of youth aged 15-24 reporting they wouldn't seek help for depression or anxiety because it would cost too much Proportion of young people, aged 15-24, who report not being able to access primary healthcare in the past 12 months due to (1) cost; (2) lack of transport	NZMHS NZHS
		Rate of youth reporting unmet need for after-hours health care services **Rate of youth reporting unmet need for primary care services** Proportion of young people, aged 15-24, who have experienced one or more types of unmet need for GP or after hours care due to inability to get an appointment at their usual medical centre within 24 hours in the past 12 months	NZHS
		Services meet the needs of Māori and Pacific youth YPMH – proportion of Māori and Pacific youth engaged in services meets or exceeds proportion in youth population	MOH DHB YPMH reporting

Outcomes	What we expect to see	How we will measure what we expect to see (Outcomes measures)	Information Sources
More supportive schools, communities, social and health services	Capacity and capability of frontline staff to respond to YMH issues	Providers and staff know what to do to support youth (e.g. are trained, have access to information, undertake referrals)	NO SOURCE IDENTIFIED
		School staff, health and social services providers are confident they can recognise youth with signs of psychological distress and a developing mental health issue Number of providers completing awareness training (e.g. MH101) – *other measures?*	NO SOURCE IDENTIFIED – provider reporting?
		More staff (e.g. nurses, youth workers, social workers, guidance counsellors) are available in the places where youth go Number of guidance counsellors (FTE) in schools Number of youth workers (or equivalent – FTE) in schools and community services Number of nurses (FTE) or nurses hours in schools Number of GPs (FTE) in schools / learning organisations	 MOE MOH
	Schools integrate positive behaviour initiatives into the environment	**Schools adopt practices that support positive behaviour and manage risky behaviours** Proportion of schools reporting positive changes in Wellbeing@ School aspects: 'School-wide climate and practices' and 'Classroom teaching and learning'	 Wellbeing@ School survey annual monitoring report (NZCER)
		Number of schools participating in individual components of PB4L suite of programmes Number of youth participating in individual components of PB4L suite of programmes School Evaluation Indicators include effective practices for wellbeing (wellbeing is part of ERO's reviews in schools) Proportion of schools (principals and/or teachers) agreeing they have deliberate strategies in place at their school to build Years 9 and 10 students' sense of belonging Proportion of schools (principals and/or teachers) agreeing that school values that encourage inclusion and respect for diversity are actively promoted by staff Proportion of schools (principals and/or teachers) reporting their school has coordinated support systems that meet students' mental health needs	MOE NZCER National survey of secondary schools (every 3 years)
		Youth experience of bullying; feeling safe at school; positive learning climate at school Rates of bullying (physical, verbal, socially, cyber)	MOE – Wellbeing at School & bullying monitoring report

Outcomes	What we expect to see	How we will measure what we expect to see (Outcomes measures)	Information Sources
Better access to appropriate information and resources for youth and their families & whānau		**Youth, families and whānau recognise the signs that a youth needs support and how to respond** Proportion of people reporting they would be able to recognise the signs and symptoms of (a) depression or (b) anxiety in a (1) friend or (2) themselves	NZMHS
		Youth, families and whānau know where to seek help for mental health related issues Proportion of people reporting they would know where to get help Proportion of people able to identify at least two different resources / places to seek help Access to Common Ground Hub & associated resources, beyond landing page (indicates usage) Access to Navigator Guidelines (usage would be better)	NZMHS Website analytics
		Youth find resources easy to understand and use Youth agree that resources are easy to understand and are appealing Youth recommend YMHP interventions and resources to their friends Youth use resources	ADD TO AN EXISTING SURVEY?
Improved knowledge of what works to improve mental health	Processes are in place to support system change	Inter-agency decisions are made about improving YMH services from a system perspective	REGULAR REVIEW (INTERVIEWS AND DECISION-MAKING DOCUMENTS
		Agencies provide examples of inter-agency alignment of projects, e.g. Canterbury response	
		Agencies describe what has changed about how information is being shared between by agencies and providers at national, regional and local level	
	Policy and decision-makers are able to make evidence-based decisions	Agencies demonstrate how evidence (from evaluations, monitoring, reviews, experience) is used to support decision making at national, regional and local level Agencies use Standards of Evidence (Superu, to be developed in 2016/17) to support their decisions	
	Inter-agency responses to complex social issues is standard practice	Ministers and officials identify and consider inter-agency initiatives as an option to address complex social issues	
		Lessons from inter-agency governance and management of YMHP are applied to other complex social issues at national, regional and local level	
	Smarter thinking, effective and innovative approaches to address YMH	Agencies review YMH services and provision in light of new knowledge and evidence and make recommendations on improvements that will deliver better mental health outcomes for youth	
		New initiatives to address specific gaps in mental health provision and support	
		Ineffective YMHP initiatives are discontinued	
		A cross-agency national-level monitoring framework for youth mental health and wellbeing is established	

Appendix B:

Achievements associated with each YMHP initiative

TABLE 10

Achievements associated with each YMHP initiative

Initiative	Initiative name	What was implemented	The result (Output)	The immediate difference it made to youth (Short-term outcomes)	The difference it will make to life outcomes (Medium- to long-term outcomes)
Better access to timely treatment and follow-up					
4	E-therapy	Further refined and implemented online e-therapy tool, SPARX	By December 2015: 4,100 youth registered on SPARX website, with about 1,500 completing module 1	About 400 youth completed at least 4 SPARX modules and 43.7% of these go into remission	Contributes to 'all mental health outcomes', namely: • Reduced prevalence of clinically diagnosed mental illnesses • Increased overall life satisfaction rating • Reduced number of youth suicides • Increased percentage of youth achieving NCEA Level 2 or higher • Lower youth unemployment rate (increased employment) • Reduced number of youth receiving welfare benefits
7	CAMHS & AOD Access	• Wait time targets for first assessment/visit for AOD and CAMHS services: 80% within 3 weeks of referral and 95% seen within 8 weeks • Developed and delivered exemplar service delivery model in two DHBs • Contracted two other DHBs to deliver additional services	• By December 2015: 3-week target achieved for AOD and most of CAMHS; less success with 8-week target • About 990 additional youth receiving AOD/CAMHS services	• Not routinely measured • Evaluation of one exemplar service found 35% of youth created a wellbeing treatment plan • 15-33% completed their wellbeing goals	Estimated 15-23% of youth completing the service will achieve: • Reduced prevalence of clinically diagnosed mental illnesses • Increased overall life satisfaction rating • Reduced number of youth suicides • Increased percentage of youth achieving NCEA Level 2 or higher • Lower youth unemployment rate (increased employment) • Reduced number of youth receiving welfare benefits • Reduced cases of alcohol and substance abuse (including smoking)

Initiative	Initiative name	What was implemented	The result (Output)	The immediate difference it made to youth (Short-term outcomes)	The difference it will make to life outcomes (Medium- to long-term outcomes)
3	Primary mental health services for youth (YPMH)	YPMH services were planned and rolled out across all 20 DHBs	• Approximately 13,000 youth per year (since 2013/14) were seen • The proportion of Māori youth seen was greater than their proportion of the youth population • Pacific youth participation rates match their share of the youth population	• Not currently measured (but provision in reporting for it to occur) • Review indicated 4.3-5.5% of youth will have improved mental health due to increased primary mental health access	Contributes to 'all mental health outcomes' *(for the outcomes, see #4 E-therapy at the beginning of this table)*
6	CAMHS & AOD Follow Up	Developed, piloted and implemented guidelines and toolkit for transition plans and follow-up care for those discharged from CAMHS and youth AOD services	16 DHBs had transition planning in place, with 4 reporting 95% of youth exiting had plans	Not measured	
26	Addressing the emerging youth mental health issues in Canterbury	Established a school-based mental health team to deliver focused interventions within the school communities: e.g. to identify students and support referrals to wider services; assisting schools to understand student behaviour by offering or facilitating workshops; consultation with parents, teachers and pastoral care teams etc.	102 primary and secondary schools engaged with the school-based mental health team	Not measured	

Initiative	Initiative name	What was implemented	The result (Output)	The immediate difference it made to youth (Short-term outcomes)	The difference it will make to life outcomes (Medium- to long-term outcomes)
Early identification of mild to moderate mental health issues / More supportive health and social services					
1	School-Based Health Services (SBHS)	SBHS extended to 44 decile 3 schools and maintained in decile 1-2 schools	In 2015/16, over 9,000 HEEADSSS assessments were administered to Year 9 students; students made approximately 110,000 visits to SBHS	• Not measured on an ongoing basis • Evaluation (Denny et al., 2014) found high-quality SBHS (those that have on-site staff well-trained in youth health, with sufficient time to work with students and to perform tasks like routine HEEADSSS assessments) impact positively on student health and wellbeing outcomes in areas such as depression, suicide risk, sexual health, alcohol misuse and school engagement • PwC (2016) calculated a 3.4% reduction in number of students in SBHS schools above the clinical depression cut-off	Contributes to 'all mental health outcomes' *(for the outcomes, see #4 E-therapy at the beginning of this table)*
2	Workforce development – HEEADSSS wellness check	Developed online HEEADSSS assessment training course	• 1,295 New Zealand-based professionals have completed 'An Introduction to HEEADSSS Assessment' from December 2013 until February 2016 • Using HEEADSSS (part of #1 & #3): over 9,000 HEEADSSS assessments completed in schools, plus others by community-based primary care providers	• Not measured but PwC (2016) calculated: • 21.4% of youth have mental illness • 20% of these individuals are identified by trained assessors who would not have otherwise been identified • 15-30% of those referred take up further treatment • 18.6% of those treated will have significant reductions in mental illness	Contributes to 'all mental health outcomes' *(for the outcomes, see #4 E-therapy at the beginning of this table)*
18	Social support for Youth One Stop Shops (YOSS)	The Ministry of Youth Development disbursed $600,000 in one-off funding to 12 YOSS ($50,000 each) in 2012	Mainly went to training, clinical assessment programmes, supporting existing programmes, supporting youth advisory groups, and extension of staff availability and capacity	Not measured	Outcomes from this initiative were overtaken by the four-year funding obtained in Budget 2014 (the outputs and outcomes of this funding are outside YMHP) YOSS services would contribute to 'all mental health outcomes'

Initiative	Initiative name	What was implemented	The result (Output)	The immediate difference it made to youth (Short-term outcomes)	The difference it will make to life outcomes (Medium- to long-term outcomes)
3	YPMH services	See above	See above	See above	
21	Youth mental health training for social services	MSD worked with Blueprint to develop MH101 module to enable workforce to recognise the signs and make referrals/take action when youth present with mild to moderate mental health issues	18 MH101 sessions have been delivered to 246 frontline Youth Services and Attendance Service staff. Further workshops are taking place for staff from other government agencies	Not measured	
5	Primary care responsiveness to youth	5a: to improve responsiveness of primary care to youth – this led to the development of Youth Service Level Alliance Teams (Youth SLAT) 5b: MOH and MSD worked to achieve sustainable funding for YOSS	19 out of 20 DHBs have a Youth SLAT (or its equivalent); the remaining one is being supported to develop a SLAT; Budget bid in 2014 resulted in $8.4m over four years to support YOSS	System Level and contributory measures for 'Youth access to and utilisation of youth appropriate health services' are being established. It is recommended these draw on the outcomes framework	No measures established – collect through process reviews? Youth SLAT are a governance/ management structure to fund, facilitate and coordinate delivery of services
22	Whānau Ora for youth mental health	A whānau-centred approach was trialled to address youth with or at risk of mild to moderate health issues in two locations	Worked with 40 youth and their whānau / aiga	Interim evaluation reported mental health was of less concern to many families than immediate practical concerns, such as basic needs of housing, safety and food. These families also reported the need to establish stable and safe environments for their children and youth. A further specific need of youth was engagement and success in education. Parents/ caregivers reported feeling empowered to advocate for themselves and their youth, and having knowledge and skills to work with services	

Initiative	Initiative name	What was implemented	The result (Output)	The immediate difference it made to youth (Short-term outcomes)	The difference it will make to life outcomes (Medium- to long-term outcomes)
More supportive schools					
8	PB4L School-Wide	Targeted roll-out of PB4L School-Wide programme to low-decile, high Māori and Pacific population, and larger schools – staff members trained, School-Wide implemented, MOE assessment of implementation	194 schools engaged by April 2016 (ongoing)	• Early evaluation suggested improved school culture • Coaches report decrease in behaviour referrals and reduced stand-downs. Data for stand-down, suspension, expulsion and exclusion (SSEE) was posited to support this view, but the SSEE rates reflected difference between schools as well as the initiative (and included primary and intermediate data along with secondary data) • Student data did not reflect coaches and curriculum leaders reporting vis-à-vis school culture, as measured through aggressive behaviour (e.g. bullying), although students indicated they were experiencing a more inclusive and consultative school environment • Comparison of 7 schools with and 17 without PB4L School-Wide using OurSCHOOL data found no difference in terms of risk and protective factors or emotional health	• Review found no link between improved behaviour and academic performance • 1.64% of students are in School-Wide schools where teachers observe less bullying • 18.75% of students experiencing reduced mental health issues due to reduced bullying – this contributed to 'all mental health outcomes' (see above)

Initiative	Initiative name	What was implemented	The result (Output)	The immediate difference it made to youth (Short-term outcomes)	The difference it will make to life outcomes (Medium- to long-term outcomes)
10	PB4L My FRIENDS Youth (MFY)	Trained teachers to deliver 10-session programme based on cognitive behavioural therapy approach. Piloted in 26 schools over a two-year period	~14,000 Year 9 students participated in pilot	Evaluation found: • Teachers reported it helped students to know each other better (62%), and it fostered a sense of community (62%) • Teachers reported feeling well-supported • Pre- and post-surveys showed a shift in managing their feelings; thinking about students' feelings; knowing what to do if students are hassling or bullying me • Māori (57%) and Pacific (62%) students agreed or strongly agreed that they used the strategies from the PB4L MFY, which was higher than the NZ European students (55%)	• 0.56-1.12% of students participating in MFY experience improvements in mental health • This contributes to 'all mental health outcomes'
9	PB4L Check & Connect	'Persistent mentoring' programme for students who have disengaged or are at risk of disengaging from school. Mentor works with youth for two years. Piloted in 20 low-decile secondary schools in four areas	319 students (ongoing)	Evaluation (n=88 students; no control group) found: • 73% of students reported getting better results, and improvements in self-management, communication and confidence, as well as more support from school, home and friends • Of 48 students where records were available, 57% gained Level 1 NCEA and 84% gained Level 1 literacy and numeracy, where ~85% had been 'struggling to perform' or only achieving in some areas	• 3% of students achieving NCEA Level 1 or 2 who would not have otherwise. None of the international studies provided evidence that Check & Connect increased the probability of school completion. Some research provided evidence of improved academic achievement, but results were mixed with respect to school attendance. Given the differences between school completion in USA and New Zealand, the increases in academic achievement observed internationally were assumed to be equivalent to achieving NCEA Level 1 or 2 in New Zealand • This contributes to increased private income as well as PAYE for the government from increased NCEA Level 1 & 2

Initiative	Initiative name	What was implemented	The result (Output)	The immediate difference it made to youth (Short-term outcomes)	The difference it will make to life outcomes (Medium- to long-term outcomes)
14	Youth Workers in (Low-Decile) Secondary Schools (YWiSS)	YWiSS was an expansion of Multi-Agency Support Services in Secondary Schools and Social Workers in Schools models in low-decile schools with an additional focus on identification of youth with mild to moderate mental health issues. The youth workers use the Check & Connect engagement and intervention model aligned with the Multi-Agency practice principles for their practice framework	19 youth workers and 7 NGO providers delivering the YWiSS service in 20 low-decile secondary schools in four areas – YWiSS are delivering Check & Connect in 18 schools	Connected with initiative #9	
26	Addressing the emerging youth mental health issues in Canterbury	See above			
Better access to appropriate information					
15	Social Media Innovation Fund	Approximately 45 workshops and ventures have been held around NZ	526 youth attended ~45 Lifehack and other events	• Not measured • PwC (2016) found evidence to suggest that participation in creative activities affects the wellbeing of youth. No effect sizes were estimated, so cost-benefit analysis estimated 5-10% effectiveness rates	Contributes to 'all mental health outcomes' (for the outcomes, see #4 E-therapy at the beginning of this table)
16	Improving the youth friendliness of mental health resources	Guidelines completed to assist mental health agencies to improve the youth-friendliness of their resources. The guidelines are now on the Ministry of Youth Development's website and have been disseminated to the wider youth mental health sector	No measures established	Not measured	

Initiative	Initiative name	What was implemented	The result (Output)	The immediate difference it made to youth (Short-term outcomes)	The difference it will make to life outcomes (Medium- to long-term outcomes)
17	Information for parents, families and friends	Established Common Ground hub, consisting of a website and free phone line, social media channels, links to relevant services, and the ability to order printed resources	Common Ground webpage has been accessed 37,543 times by 28,577 unique users since launch – 49% only access one page. Facebook page has a following of 11,623 people	As this initiative is focused on providing information and resources for people supporting youth, it is considered to have an indirect impact on youth mental health outcomes. In the evaluation survey, families and professionals alike agreed that Common Ground was a trusted and quality way of accessing information, advice and support	
23	Raising awareness, equipping the workforce and providing guidance and support	Guidance for people in the community supporting youth with mild to moderate mental health issues. Further work to establish support on social media is under way	Website analytics counts downloads	Not measured	
Improved knowledge of what works to strengthens systems and processes					
11	ERO review of wellbeing in schools	Draft wellbeing indicators developed; 68 secondary schools evaluated against wellbeing indicators; effective practice guidelines and resources have been developed for primary and secondary schools	The evaluation indicators will be used by ERO's review officers in school reviews. School boards, leaders and teachers are encouraged to use them to evaluate wellbeing within their school	ERO reviews may, where relevant, include qualitative information about wellbeing outcomes	
12	Improving the school guidance system	Review published and used as basis for work begun on initial deliverables (e.g. analysis of guidance and counselling staff use of TeachNZ Study Awards)	Not relevant	Recommendations not implemented	Once implemented, could track number of guidance counsellors employed by school; proportion of schools with goals and approaches related to guidance and counselling in place and their performance on such

Initiative	Initiative name	What was implemented	The result (Output)	The immediate difference it made to youth (Short-term outcomes)	The difference it will make to life outcomes (Medium- to long-term outcomes)
13	Review of AOD education programmes	A guide for schools on AOD education programmes was published in December on the Te Kete Ipurangi website	No measures established	No measures established	• The review reported school-based AOD programmes are unlikely to cause any change in behaviour, although they will probably increase young people's knowledge and awareness of the risks around AOD use • Effective AOD programmes seek to reduce demand, control supply, and limit the damage caused to individuals harmed by alcohol or drugs
19	Youth referrals pathways review	Review completed in 2013; review's recommendations for further work were folded into YMHP as initiatives #23, 24 and 25	Not relevant	Recommendations led to initiatives #23, 24 & 25 being established	
24	Developing integrated funding models and connected service delivery	Folded into initiative #5	Not relevant	Folded into initiative #5	
25	Co-locating additional social services in schools	Report on the feasibility and value of co-locating additional social services on school sites completed. Ministry of Education continuing to encourage co-location	Review report found that the greatest benefit of providing school-based services was improved educational outcomes. The contributing factors are improved attendance, well-being and academic achievement	No measures established	No measures established – collect through process reviews?
20	Youth engagement	An 'enabler' initiative to ensure other YMHP initiatives involved youth as much as possible during the design and development phase	Established youth advisory groups for some initiatives; youth included on funding and assessment panels; interviews, online surveys and/or focus groups to inform development of initiatives	• Not measured • Agencies have commented on the valuable insights young people bring to the discussion table, saying that many times the young people have generated ideas and have opinions that would not have occurred to the adults	

Appendix C:

Summary tables of emotional health, risk and protective factors for OurSCHOOL sample

TABLE 11

Summary tables of emotional health, risk and protective factors for OurSCHOOL sample

			Sample Statistics		Gender		Ethnicity Total Count		
Theme	**Variable**	**Description**	**Total N**	**Average**	**Male**	**Female**	**European**	**Māori**	**Pacific**
Emotional health	Multiple indicators of anxiety	Six statements made up the anxiety measure. Participants had to have experienced at least four stressors on average for two or more times a week to be included as having experienced multiple indicators of anxiety.	575	19%	11%	24%	19%	15%	11%
	Multiple indicators of depression	Six statements made up the depression measure. Participants had to have experienced at least four stressors on average for two or more times a week to be included as having experienced multiple indicators of depression.	504	16%	9%	21%	18%	15%	12%
	Multiple indicators of low self esteem	Seven statements made up the self esteem measure. Response to each statement ranged from 0 (strongly disagree) to 4 (strongly agree). Participants had to have a total score of 16 or less to be included as having experienced multiple indicators of low self-esteem.	987	32%	24%	37%	35%	31%	28%
Risk factors	Engaged in self-harm	Deliberately engage in self-harming behaviour in the last 12 months.	586	20%	15%	23%	21%	23%	22%
	Lack of feeling safe at school	Nine statements made up the school safety measure, with a total score of 18. Participants had to have a total score of 13 or less to be included as 'lack of feeling safe at school'.	979	32%	36%	29%	30%	37%	36%
	Experienced 'moderate to severe' bullying	Four statements made up the bullying measure. Participants had to have experienced at least two events on average for two or three times a week to be included as having experienced 'moderate to severe' bullying.	365	12%	15%	10%	13%	16%	16%
	Experienced 3 or more traumatic events	Participants had to have experienced three or more traumatic events (e.g. death or a family member or friend, personally experienced an earthquake or other natural disaster) to be included.	830	28%	26%	30%	30%	38%	35%
	Regularly truant	Three statements made up the truancy measure. Participants had to have experienced at least two truant events on average for three or four times to be included as regularly truant.	286	9%	13%	7%	9%	16%	18%
	Self-reported alcohol use	Had two or more drinks of alcohol in the past four weeks.	216	7%	11%	4%	7%	11%	9%
	Self-reported tobacco use	Smoked cigarettes occsionally or daily.	214	7%	8%	7%	7%	13%	12%
	Self-reported marijuana use	Smoked marijuana occasionally or daily.	205	7%	11%	4%	6%	14%	10%
	Would not ask anyone for help (in and outside school)	Included participants who would not ask for help in school (e.g. teacher, youth mentor and older students) and outside of school (e.g. friends, family or whānau).	185	6%	8%	5%	6%	6%	7%

			Sample Statistics		Gender		Ethnicity Total Count		
Theme	Variable	Description	Total N	Average	Male	Female	European	Māori	Pacific
Protective factors	Positive sense of belonging	Six statements made up the sense of belonging measure. Participants had to agree or strongly agree with at least four statements to be included as having a positive sense of belonging.	2289	74%	76%	73%	72%	75%	81%
	Positive relationships	Four statements made up the relationships measure, with a maximum total score of eight. Participants had to have a total score of six or higher to be included as having positive relationships with friends at school.	794	26%	18%	30%	28%	24%	22%
	Good advocacy outside of school	Six statements made up the advocacy outside of school measure. Participants had to have experienced at least five events for on average at least two or three times a week to be included as having good advocacy outside of school.	1783	59%	59%	59%	57%	55%	62%
	Positive teacher-student relations	Six statements made up the teacher-student relations measure, with a total score of 24. Participants had to have a total score of 12 or more to be included as having positive teacher-student relations.	2314	75%	76%	74%	73%	71%	73%
	Positive learning climate	Six statements made up the learning climate measure, with a total score of 24. Participants had to have a total score of 12 or more to be included as having a positive learning climate.	2329	75%	74%	76%	74%	71%	73%

		Sample Statistics		Locality					
Theme	Variable	Total N	Average	Northland	West Auckland	Hawke's Bay	Lower Hutt	Christchurch	Invercargill
Emotional health	Multiple indicators of anxiety	575	19%	14%	21%	16%	17%	28%	17%
	Multiple indicators of depression	504	16%	12%	15%	12%	19%	27%	14%
	Multiple indicators of low self-esteem	987	32%	24%	27%	33%	32%	43%	34%
Risk factors	Engaged in self-harm	586	20%	19%	19%	17%	20%	28%	17%
	Lack of feeling safe at school	979	32%	32%	38%	25%	25%	43%	32%
	Experienced 'moderate to severe' bullying	365	12%	12%	11%	11%	8%	18%	15%
	Experienced 3 or more traumatic events	830	28%	27%	23%	28%	26%	48%	24%
	Regularly truant	286	9%	11%	5%	12%	7%	10%	15%
	Self-reported alcohol use	216	7%	10%	6%	8%	5%	7%	10%
	Self-reported tobacco use	214	7%	6%	5%	10%	7%	7%	9%
	Self-reported marijuana use	205	7%	12%	6%	10%	5%	6%	6%
	Would not ask anyone for help (in and outside school)	185	6%	0%	7%	0%	8%	12%	11%
Protective factors	Positive sense of belonging	2289	74%	77%	77%	77%	77%	64%	68%
	Positive relationships	794	26%	23%	24%	29%	25%	24%	27%
	Good advocacy outside of school	1783	59%	62%	63%	59%	60%	49%	54%
	Positive teacher-student relations	2314	75%	71%	78%	74%	78%	71%	72%
	Positive learning climate	2329	75%	72%	77%	79%	78%	70%	70%

		Sample Statistics		Decile			Year group				
Theme	Variable	Total N	Average	Low	Medium	High	Year 9	Year 10	Year 11	Year 12	Year 13
Emotional health	Multiple indicators of anxiety	575	19%	13%	21%	21%	19%	17%	20%	19%	18%
	Multiple indicators of depression	504	16%	12%	17%	19%	15%	16%	16%	19%	17%
	Multiple indicators of low self-esteem	987	32%	26%	32%	38%	28%	31%	32%	39%	30%
Risk factors	Engaged in self-harm	586	20%	19%	20%	19%	22%	19%	21%	19%	17%
	Lack of feeling safe at school	979	32%	36%	37%	16%	36%	35%	34%	29%	23%
	Experienced 'moderate to severe' bullying	365	12%	13%	14%	6%	18%	12%	12%	8%	8%
	Experienced 3 or more traumatic events	830	28%	32%	28%	23%	30%	29%	27%	27%	26%
	Regularly truant	286	9%	14%	9%	4%	6%	7%	8%	11%	17%
	Self-reported alcohol use	216	7%	9%	8%	3%	4%	4%	8%	9%	13%
	Self-reported tobacco use	214	7%	11%	6%	4%	5%	5%	9%	9%	9%
	Self-reported marijuana use	205	7%	13%	6%	3%	4%	3%	9%	8%	11%
	Would not ask anyone for help (in and outside school)	185	6%	5%	9%	3%	5%	7%	6%	8%	7%
Protective factors	Positive sense of belonging	2289	74%	78%	71%	77%	74%	76%	74%	71%	75%
	Positive relationships	794	26%	19%	25%	34%	21%	25%	28%	26%	30%
	Good advocacy outside of school	1783	59%	62%	56%	60%	67%	60%	61%	54%	48%
	Positive teacher-student relations	2314	75%	76%	73%	77%	76%	74%	72%	73%	80%
	Positive learning climate	2329	75%	73%	73%	83%	74%	75%	76%	73%	79%

		Sample Statistics		LGBT	Born in NZ		Disability	
Theme	Variable	Total N	Average	Yes	Yes	No	Yes	No
Emotional health	Multiple indicators of anxiety	575	19%	35%	18%	21%	30%	17%
	Multiple indicators of depression	504	16%	40%	16%	17%	28%	15%
	Multiple indicators of low self-esteem	987	32%	53%	32%	30%	41%	31%
Risk factors	Engaged in self-harm	586	20%	51%	20%	19%	35%	18%
	Lack of feeling safe at school	979	32%	51%	31%	34%	46%	30%
	Experienced 'moderate to severe' bullying	365	12%	23%	11%	14%	22%	11%
	Experienced 3 or more traumatic events	830	28%	38%	29%	24%	36%	27%
	Regularly truant	286	9%	19%	9%	6%	15%	8%
	Self-reported alcohol use	216	7%	20%	7%	5%	16%	6%
	Self-reported tobacco use	214	7%	18%	7%	5%	14%	6%
	Self-reported marijuana use	205	7%	16%	7%	5%	12%	6%
	Would not ask anyone for help (in and outside school)	185	6%	12%	6%	7%	12%	6%
Protective factors	Positive sense of belonging	2289	74%	50%	74%	74%	61%	76%
	Positive relationships	794	26%	23%	27%	21%	21%	26%
	Good advocacy outside of school	1783	59%	51%	58%	61%	58%	58%
	Positive teacher-student relations	2314	75%	67%	74%	80%	67%	76%
	Positive learning climate	2329	75%	67%	75%	79%	66%	77%

Abbreviations

AOD	Alcohol and Other Drugs
BCR	Benefit-cost ratio
CAMHS	Child and Adolescent Mental Health Services
CBA	Cost-benefit analysis
CBT	Cognitive behavioural therapy
DALY	Disability-adjusted life years (measures the burden of disease or disability on quality and quantity of life)
ERO	Education Review Office
DHB	District Health Board
FTE	Full-time equivalent
GP	General practice, or general practitioner
HEEADSSS	**H**ome, **e**ducation/employment, **e**ating, **a**ctivities, **d**rugs and alcohol, **s**exuality, **s**uicide/depression and **s**afety
LGBT	Lesbian, gay, bisexual, transgender
LGBTI	Lesbian, gay, bisexual, transgender, inter-sex
MOE	Ministry of Education
MOH	Ministry of Health
MSD	Ministry of Social Development
NEET	Youth not in employment, education or training
NHI	National Health Index (number)
NSN	National Student Number
NGO	Non-governmental organisation
PB4L	Positive Behaviour for Learning
PHARMAC	Pharmaceutical Management Agency
PHO	Primary health organisation
PwC	PricewaterhouseCoopers
QALY	Quality-adjusted life years (the number of years in which an individual would be expected to be completely free of symptoms or disability)
RCT	Randomised control trial
SBHS	School-Based Health Services
TPK	Te Puni Kōkiri
YMHP	Youth Mental Health Project
YOSS	Youth One Stop Shops
YPMH	Youth Primary Mental Health
YWiSS	Youth Workers in (Low-Decile) Secondary Schools
Youth SLAT	Youth Service Level Alliance Team

Social Policy Evaluation and Research Unit

superu

Families Commission Kōmihana ā Whānau

The Families Commission operates under the name Social Policy Evaluation and Research Unit (Superu)