

Title: Transforming children and young people's mental health provision: a green paper IA No: 14001 RPC Reference No: N/A Lead department or agency: Department of Health Other departments or agencies: Department for Education	Impact Assessment (IA)			
	Date: 04/12/2017			
	Stage: Consultation			
	Source of intervention: Domestic			
	Type of measure: Other			
Contact for enquiries: youngmentalhealth@dh.gsi.gov.uk				
Summary: Intervention and Options				RPC Opinion: Not Applicable

Cost of Preferred (or more likely) Option				
Total Net Present Value	Business Net Present Value	Net cost to business per year (EANDCB in 2014 prices)	One-In, Three-Out	Business Impact Target Status
£2,629m	£0m	£0m	Not in scope	Not a regulatory provision

What is the problem under consideration? Why is government intervention necessary?

There is a need to increase support to children and young people (CYP) with mild to moderate mental health conditions in England, and to reduce the length of time that those who need specialist NHS Children and Young People's (CYP) mental health services wait for treatment.

What are the policy objectives and the intended effects?

To increase support to children and young people (CYP) with mild to moderate mental health conditions in England, and to reduce the length of time that those who need specialist NHS Children and Young People's (CYP) mental health services wait for treatment.

The intended effects are a) improved quality of life for CYP living with a mental health condition b) improved outcomes for CYP living with a mental health condition c) reduced overall severity and impact of mental health conditions and thereby improved future earnings/ productivity, reduced burden on the health and social care system, education system and the criminal justice system.

What policy options have been considered, including any alternatives to regulation? Please justify preferred option (further details in Evidence Base)

Option 1: Do nothing.

Option 2: Incentivise and support all schools and colleges to identify a Designated Senior Lead for Mental Health.

Option 3: Option 2 plus new Mental Health Support Teams working with schools to provide support for those with mild to moderate needs. Without Option 2, Mental Health Support Teams would not be jointly managed by Designated Senior Leads for Mental Health and would not have a crucial link into schools and colleges.

Option 4: Option 3 plus a series of CYP Mental Health Services (CYPMHS) waiting time pilots. Without investing in prevention and early intervention for mild to moderate mental health problems provided by Option 3, demand for CYPMHS services could continue rising making it difficult to deliver a waiting time standard.

Option 4 is the preferred option.

Will the policy be reviewed? It will be reviewed. If applicable, set review date: Ongoing review				
Does implementation go beyond minimum EU requirements?			Yes	
Are any of these organisations in scope?			Micro No	Small No
			Medium No	Large No
What is the CO ₂ equivalent change in greenhouse gas emissions? (Million tonnes CO ₂ equivalent)			Traded: N/A	Non-traded: N/A

I have read the Impact Assessment and I am satisfied that, given the available evidence, it represents a reasonable view of the likely costs, benefits and impact of the leading options.

Signed by the responsible Director: Chris Mullin, Department of Health Chief Economist
Date: 4th Dec 2017

Summary: Analysis & Evidence

Policy Option 1

Description: Do nothing

FULL ECONOMIC ASSESSMENT

Price Base Year	PV Base Year	Time Period Years	Net Benefit (Present Value (PV)) (£m)		
			Low:	High:	Best Estimate:

COSTS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low			
High			
Best Estimate	0	0	0

Description and scale of key monetised costs by 'main affected groups'

N/A

Other key non-monetised costs by 'main affected groups'

Without intervention, there will continue to be a need to increase support for CYP with mental health illnesses and lower level needs. This will continue imposing costs on schools, carers, and CYPMHS and wider services such as criminal justice and social care.

BENEFITS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)
Low			
High			
Best Estimate	0	0	0

Description and scale of key monetised benefits by 'main affected groups'

N/A

Other key non-monetised benefits by 'main affected groups'

N/A

Key assumptions/sensitivities/risks

Discount rate (%)

N/A

We have assumed that in the 'do nothing' scenario, prevalence of CYP with diagnosable mental health disorders will remain at the last recorded level (measured in 2004), due to an absence of robust population level evidence. However, there is indicative evidence that prevalence of mental health problems among CYP may be increasing.

BUSINESS ASSESSMENT (Option 1)

Direct impact on business (Equivalent Annual) £m:			Score for Business Impact Target (qualifying provisions only) £m:
Costs: 0	Benefits: 0	Net: 0	

Summary: Analysis & Evidence

Policy Option 2

Description: Incentivise and support all schools and colleges to identify a Designated Senior Lead for Mental Health.

FULL ECONOMIC ASSESSMENT

Price Base Year 2016/17	PV Base Year 2017/18	Time Period Years 5	Net Benefit (Present Value (PV)) (£m)		
			Low: -94	High: -71	Best Estimate: -83

COSTS (£m)	Total Transition (Constant Price) Years		Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	0			71
High				94
Best Estimate				83

Description and scale of key monetised costs by 'main affected groups'

The cost associated with incentivising and supporting Designated Senior Leads for Mental Health in schools and colleges will be national roll-out of school/college – CYPMHS joint training (assumed £7.6m over five years), plus one-off funding for training to schools and colleges with Designated Senior Leads. This will cover the costs of a significant training programme and provide up to £15-20m each year from 2019 to cover costs until all schools and colleges have had the opportunity to train a Lead (assumed five years for modelling purposes).

Other key non-monetised costs by 'main affected groups'

There is an opportunity cost of the time teachers or other school/college staff (acting as Designated Senior Lead) spend on training and delivering the Lead role. However it is not possible to robustly estimate this. We have assumed that any extra workload burden on CYPMHS will be absorbed by the expansion set out in Mental Health Support teams and therefore have not included costs to CYPMHS. However, if this was the only element of new support to improve CYPMHS we would anticipate a further cost to CYPMH to provide appropriate liaison, for this reason this option is not recommended as a standalone option.

BENEFITS (£m)	Total Transition (Constant Price) Years		Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)
Low	1			
High				
Best Estimate				Unquantified

Description and scale of key monetised benefits by 'main affected groups'

None

Other key non-monetised benefits by 'main affected groups'

Increase in quality of working relationships between schools/colleges and CYPMHS. Improvements in Designated Senior Leads for Mental Health's understanding of referral pathways, leading to an increase in appropriate referrals resulting in treatment and decreased referrals of CYP who do not meet the threshold for specialist treatment. Some increased availability of mental health support within schools. Improved knowledge and understanding of mental health issues among wider school staff, supporting improved early identification and support.

Key assumptions/sensitivities/risks

Discount rate (%) 3.5

There is a risk that in the short term the demand for CYPMHS treatment rises if there is an increase in the number of CYP with severe needs who are identified as needing CYPMHS treatment, through the implementation of the Mental Health Support Teams and Designated Senior Leads in schools and colleges. There is also a risk that the training offer does not incentivise schools and colleges to designate Leads, or that even with Leads they do not take up the training offer.

BUSINESS ASSESSMENT (Option 2)

Direct impact on business (Equivalent Annual) £m:			Score for Business Impact Target (qualifying provisions only) £m:
Costs: 0	Benefits: 0	Net: 0	

Summary: Analysis & Evidence

Policy Option 3

Description: Option 2 plus creation of new Mental Health Support Teams to provide support for those with mild to moderate mental health needs.

FULL ECONOMIC ASSESSMENT

Price Base Year 2016/17	PV Base Year 2017/18	Time Period Years 10	Net Benefit (Present Value (PV)) (£m)		
			Low: 1,642	High: 6,371	Best Estimate: 2,674

COSTS (£m)	Total Transition (Constant Price) Years		Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	9			
High				
Best Estimate				1,265

Description and scale of key monetised costs by 'main affected groups'

Designated Senior Lead for Mental Health in schools and colleges, as in Option 2.
New Mental Health Support Teams to work with schools and colleges and support CYP with mild to moderate mental health needs, providing a link with CYPMHS - £255m discounted annual financial cost as at full implementation, includes costs to train and employ the new workforce of approx. 8,000 FTE, equivalent to £255m economic cost.

Other key non-monetised costs by 'main affected groups'

In addition to the non-monetised costs set out for Option 2 there is an opportunity cost to CYP of the time spent participating in mental health interventions, time otherwise spent on learning or other activities (partially offset by reduced absenteeism). However it is not possible to robustly estimate this.

BENEFITS (£m)	Total Transition (Constant Price) Years		Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)
Low	9			2,907
High				7,636
Best Estimate				3,939

Description and scale of key monetised benefits by 'main affected groups'

New Mental Health Support Teams - £3,939m discounted benefit (NHS savings and productivity benefit).

Other key non-monetised benefits by 'main affected groups'

Reduction in mental ill health of children (continuing into adulthood), resulting in improvements in quality of life. Fewer referrals to CYPMHS of children who do not meet the threshold for specialist treatment, reducing administrative burden. Increased proportion of referrals to CYPMHS which result in treatment. Savings/increased revenue to other government departments (OGDs) (Ministry of Justice, Home Office, Department for Work and Pensions (DWP), HMRC) due to reduced costs to the criminal justice system and increased productivity. Social care savings may accrue to individuals and Local Authorities. Savings to Department for Education/education system e.g. through, decreased costs of addressing truancy and exclusions. Decreased risk of physical health problems.

Key assumptions/sensitivities/risks

Discount rate (%) 3.5

We have assumed that 60% of children with a diagnosable mental health condition who are not currently referred to CYPMHS would benefit from some form of specialist treatment, and that 60% of those would receive specialist support from the new Mental Health Support Teams. We have also assumed that half of the CYP receiving a CYPMHS assessment, but who do not meet the threshold for CYPMHS treatment, would instead receive specialist support through the teams. There is a lack of evidence around the number of CYP who have low level mental health needs (but do not have a diagnosable mental health disorder) who currently would not be referred to CYPMHS but would likely be supported by the Mental Health Support Teams.

There is a risk that in the short term the demand for CYPMHS treatment rises if there is an increase in the number of children with severe needs who are identified as needing CYPMHS treatment, through the implementation of the Mental Health Support Teams and Designated Senior Leads in schools and colleges. There is high uncertainty in the estimated benefits, as these will depend on the details of policy implementation, which is currently in the process of consultation and will be tested via Trailblazers in the first phases of roll out.

BUSINESS ASSESSMENT (Option 3)

Direct impact on business (Equivalent Annual) £m:			Score for Business Impact Target (qualifying provisions only) £m:
Costs: 0	Benefits: 0	Net: 0	

Summary: Analysis & Evidence

Policy Option 4

Description: Option 3 plus CYPMHS waiting time pilots.

FULL ECONOMIC ASSESSMENT

Price Base Year 2016/17	PV Base Year 2017/18	Time Period Years 10	Net Benefit (Present Value (PV)) (£m)		
			Low: 1,597	High: 6,326	Best Estimate: 2,629

COSTS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	9		
High			
Best Estimate			1,310

Description and scale of key monetised costs by 'main affected groups'

Equivalent to the costs of Option 3, plus an amount of money for piloting new service delivery models for achieving reduced waits. This fund will include an allowance for robust evaluation of the pilots. For the purpose of this analysis, we assign a total cost of c. £50m.

Other key non-monetised costs by 'main affected groups'

These are equivalent to those of Option 3.

BENEFITS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)
Low	9		2,907
High			7,636
Best Estimate			3,939

Description and scale of key monetised benefits by 'main affected groups'

New Mental Health Support Teams - £3,939m discounted financial benefit (NHS savings and productivity benefit).

Other key non-monetised benefits by 'main affected groups'

Equivalent to non-monetised benefits for Option 3. In addition: CYPMHS waiting times pilot – reduction in anxiety and distress of CYP and family while waiting for treatment, quality of life benefit from reduced proportion of life lived with pre-treatment quality of life. Break-even analysis suggests that the benefits of waiting times pilots are likely to outweigh their costs.

Key assumptions/sensitivities/risks	Discount rate (%)	3.5
Equivalent to key assumptions/sensitivities/risks as Option 3.		

BUSINESS ASSESSMENT (Option 4)

Direct impact on business (Equivalent Annual) £m:			Score for Business Impact Target (qualifying provisions only) £m:
Costs: 0	Benefits: 0	Net: 0	

Contents

Impact Assessment (IA)	1
Summary: Intervention and Options	1
RPC Opinion:	1
Summary: Analysis & Evidence Policy Option 1.....	2
Summary: Analysis & Evidence Policy Option 2.....	3
Summary: Analysis & Evidence Policy Option 3.....	4
Summary: Analysis & Evidence Policy Option 4.....	5
Contents.....	6
This is a supporting document to analyse the proposals within “Transforming children and young people’s mental health provision: a green paper.” Herein referred to as the Green Paper.	7
1. Evidence Base	7
2. Rationale for intervention;	8
3. Policy objective;	12
4. Description of options considered (including status-quo);	13
5. Monetised and non-monetised costs and benefits of each option (including administrative burden);	15
Option 1: Do nothing	15
Option 2 Incentivise and support all schools and colleges to identify a Designated Senior Lead for Mental Health	16
Costs.....	16
Benefits	17
Option 3: Incentivise all schools and colleges to identify a Designated Senior Lead for mental health, plus creation of new Mental Health Support Teams to provide support for those with mild to moderate mental health needs	18
Costs.....	18
Benefits	19
Option 4: Options above plus CYPMHS waiting time pilots	25
Costs.....	25
Benefits	25
Sensitivity analysis	26
Conclusion.....	28
Areas of evidence/information/assumptions that can be further informed through consultation.....	28
Annex	29

This is a supporting document to analyse the proposals within “Transforming children and young people’s mental health provision: a green paper¹.” Herein referred to as the Green Paper.

1. Evidence Base

Problem under consideration;

There is a need to increase support to children and young people (CYP) with mild to moderate mental health conditions in England, and to reduce the length of time that those who need specialist NHS CYP mental health services wait for treatment.

Children and young people (CYP) can experience mental health needs in different ways, and receive or need different types of support for these needs. There are broadly three groups of CYP to consider:

- CYP who are pre-diagnosable, have mild or low-level needs which do not constitute a diagnosable mental health condition but are at risk of developing one and would benefit from a form of support;
- Those who have a diagnosable mental health condition with mild to moderate needs that do not meet thresholds for specialist NHS Children and Young People Mental Health Services (CYPMHS) treatment;
- CYP with diagnosable conditions (with often but not exclusively, severe needs) that meet thresholds for CYPMHS treatments.

Mental health problems affect a large number of CYP at any one time. Our most recent data (from 2004) indicates that around 10% of CYP will have a diagnosable mental health disorder at any one time.² This is equivalent to around 850,000 CYP between the ages of 5 and 18. Note that prevalence may have risen since 2004 and data is not collected on the number of children who have pre-diagnosable, lower level needs.

The NHS provides mental health care for CYP experiencing serious problems. There are currently around 460,000 referrals to CYP’s NHS-funded mental health services a year, with 200,000 going on to receive treatment in NHS-funded services and many being appropriately signposted to other help. The government is committed to improving access to CYP mental health support and has committed to deliver 70,000 additional treatments in 2020/21 compared to 2014/15.

Waits for treatment can vary considerably in different areas, with the shortest around four weeks and the longest in one provider with waits of up to 100 weeks from referral to treatment. Latest data shows that in 2016/17 the average wait for treatment in a CYPMHS was 12 weeks³.

Provision for those with mild / moderate mental health needs is variable. Support is provided via a number of routes, including: NHS services, schools, and local authorities (LAs) and other services.

We know that the majority of schools offer some form of mental health provision across a range of types of activities from universal prevention and promotion activities to providing targeted support for those with mild to moderate needs, such as school based counselling.⁴ However, schools report difficulty finding funding for mental health provision and also that they struggle to know what services, programmes or activities would be best to

¹ Department of Health (2017). Transforming children and young people’s mental health services: a green paper. Available at: www.gov.uk

² Green, et al. (2005). Mental health of children and young people in Great Britain, 2004. Basingstoke: Palgrave MacMillan. Available at: <http://digital.nhs.uk/catalogue/PUB06116>

³ Time from referral to the second contact. Digital.nhs.uk. 2017. http://content.digital.nhs.uk/media/25613/NHS-England-CYPMH-Additional-Waiting-Time-Statistics-FINAL/xls/NHS_England_CYPMH_Additional_Waiting_Time_Statistics_FINAL.xlsx (accessed November 2017)

⁴ Marshall, et al. (2017). Supporting Mental Health in Schools and Colleges: Quantitative Survey. *Department for Education*. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/634726/Supporting_Mental-Health_survey_report.pdf

invest in.⁵ We know that LAs and other services can and do provide mental health support (e.g. School Nurses, educational psychologists, Youth Information Advice and Counselling Services), but we do not have good evidence of exactly what is provided.

There is also a need to improve join up between NHS and schools. The evaluation of the Mental Health Services and Schools Link Pilot found that, prior to the pilot, areas experienced a range of difficulties in joint working between schools and NHS CYPMHS. These include misunderstanding of referral routes, schools not being able to refer directly into NHS CYPMHS, poor communication and a lack of ability to share data and outcomes relating to referrals. While the pilot areas are not necessarily representative of the wider country, they did suggest a range of different starting points for joint working.

2. Rationale for intervention;

Intervention improves quality of life for the individual and improved outcomes generate benefits for society. There is evidence that intervention in childhood is more cost-effective than intervention at a later stage.

Short and long term effects of CYP mental health problems

As shown above, mental health problems affect a large number of CYP. Problems that begin in childhood and adolescence can lead to significant distress, with a range of negative impacts on individuals and families, and these can continue into adult life unless properly treated. The Chief Medical Officer has highlighted that without CYP's mental health services there is a wider cost to society, while effective early treatment can help improve individual's attainment and relationships later in life.⁶

The evidence suggests that CYP with mental health problems often experience issues in many areas of their life:

- CYP with mental health problems are more likely to experience increased disruption to their education, via time off school and exclusions, than children with no mental health problems.^{7 8} CYP with mental health disorders are 18 times more likely to be excluded from school than those without.⁹ A quarter of CYP with mental health problems report not going into school due to concerns about what others think about their mental health problems.¹⁰
- CYP with diagnosable mental health problems are more likely to be assessed as being behind in their schooling, with 9% being assessed as being two or more years behind.¹¹
- Young people with mental health problems are more likely to experience problems in their future employment, with various longitudinal studies suggesting a long-term impact on economic activity such as receipt of welfare benefits, income, and continuous employment.^{12 13 14}

⁵ White, et al. (2017). Supporting Mental Health in Schools and Colleges: Qualitative case studies. *Department for Education*. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/634728/Supporting_Mental-health_Case_study_report.pdf

⁶ Murphy, & Fonagy (2012). Annual Report of the Chief Medical Officer 2012, Our Children Deserve Better: Prevention Pays. *Chapter 10*. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/252660/33571_2901304_CMO_Chapter_10.pdf

⁷ Although caution should be taken due to small numbers of CYP excluded.

⁸ Representative sample of 5-16 year olds. Includes conduct disorder, emotional disorders, hyperkinetic disorders, less common disorders (e.g. autism spectrum disorder, tic disorder, eating disorders). Proportion of children experiencing time off school: 17% emotional disorders, 14% with conduct disorders, 11% with hyperkinetic disorders, 5% children with no disorder – away from school for over 15 days in the previous term.

⁹ Green, et al. (2005). Mental health of children and young people in Great Britain, 2004. Basingstoke: Palgrave MacMillan. Available at: <http://digital.nhs.uk/catalogue/PUB06116>

¹⁰ Meltzer, et al. (2003). Persistence, onset, risk factors and outcomes of childhood mental disorders. Available at: http://webarchive.nationalarchives.gov.uk/+http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsStatistics/DH_4081089

¹¹ Time to Change (2014). Students missing out on education because of mental illness. Available at: <https://www.time-to-change.org.uk/news/students-missing-out-education-because-mental-illness>

¹² PQ 207563, 5 September 2014. Available at: <http://www.parliament.uk/business/publications/written-questions-answers-statements/written-question/Commons/2014-09-01/207563/>

- One quarter of boys in Youth Offender Institutions reported emotional or mental health problems.¹⁵
- Over two fifths of CYP on community orders had emotional and mental health needs.¹⁶
- Young people with conduct disorder are more likely to engage in criminal activity, with research suggesting they are 20 times more likely to end up in prison, and four times more likely to become dependent on drugs, compared to the general population.¹⁷

When difficulties start below secondary school age, they have particularly long lasting effects on children's prospects, with around half of children with conduct disorder going on to have very poor life chances including an increased risk of a wide range of adult mental illnesses.¹⁸ For example, compared with their peers, children aged 7-9 with conduct disorder are on average¹⁹:

- Twice as likely to leave school with no qualifications;
- Four times more likely to become drug dependent;
- Six times more likely to die before the age of 30;
- Eight times more likely to be placed on a child protection register;
- 20 times more likely to end up in prison

15-20% of children have behavioural difficulties falling short of a diagnostic threshold but which nevertheless carry increased risk of poorer outcomes in later life.

In addition to childhood issues caused by mental health problems, there is good evidence that adult mental health problems begin in childhood or adolescence:

- A British cohort study showed that teens who had common mental disorders (CMDs)²⁰ were more than two and a half times more likely to have a common mental disorder at age 36, compared with mentally healthy teenagers (although by the age of 53 there was no difference). For teens with persistent CMD (CMD at age 13 and 15), they were over six times more likely to have CMD at age 36 and 43, and four times more likely at age 53 (although there were less than 50 people in this group).²¹

¹² Knapp, et al. (2016). Youth Mental Health: New Economic Evidence. Available at: <http://www.pssru.ac.uk/archive/pdf/5160.pdf> - Analysis of APMS data, 16-25 year olds, 27% vs 16%.

¹³ Childhood mental health and life chances in post-war Britain: Insights from three national birth cohort studies (2009). Available at: [http://www.rcpsych.ac.uk/pdf/life_chances_summary%20\(2\).pdf](http://www.rcpsych.ac.uk/pdf/life_chances_summary%20(2).pdf)

¹⁴ Goodman, et al. (2011). The long shadow cast by childhood physical and mental problems on adult life. Available at: <http://www.pnas.org/content/108/15/6032.full.pdf>

¹⁵ HMIP (2016). Children in Custody 2015-16: An analysis of 12-18 year olds' perceptions of their experiences in secure training centres and young offender institutions. Available at: https://www.justiceinspectorates.gov.uk/hmiprisons/wp-content/uploads/sites/4/2016/11/Children-in-Custody-2015-16_WEB.pdf

¹⁶ Healthcare Commission (2009). Actions speak louder: A second review of healthcare in the community for young people who offend. Available at: <http://www.ohrn.nhs.uk/resource/policy/Actionsspeaklouder.pdf>

¹⁷ Parsonage, et al. (2014). Building a better future: the lifetime costs of childhood behavioural problems and the benefits of early intervention. Centre for Mental Health. Available at: https://www.researchgate.net/publication/308085041_Building_a_better_future_the_lifetime_costs_of_childhood_behavioural_problems_and_the_benefits_of_early_intervention

¹⁸ Moffitt (2006). Life-course-persistent versus adolescence-limited antisocial behaviour: a 10-year research review and a research agenda. In: Cicchetti, & Cohen [Eds.]. Risk, Disorder, and Adaptation, *Developmental Psychopathology*, 3, 720-98. Hoboken, NJ: John Wiley.

¹⁹ Fergusson, et al. (2005). Show me a child at seven: consequences of conduct problems in childhood for psychosocial functioning in adulthood. *Journal of Child Psychology and Psychiatry*, 46, 837 - 849. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/16033632>

²⁰ Teens were rated by their teachers at age 13 and 15, on items similar to those seen in internalising disorders such as depression and anxiety. Survey participants scoring in the top 6% of the population distribution were defined as cases of 'common mental disorder' (CMD) (n=277 at either age). Those who met the definition at both 13 and 15 years were defined as 'persistent CMD' (n=46).

²¹ Jones (2013). Adult mental health disorders and their age at onset. *The British Journal of Psychiatry*, 202, s5-s10. Available at: <http://bjp.rcpsych.org/content/202/s5/s5>

- Longitudinal research from New Zealand shows that half of 26 year old adults with a diagnosable mental health problem also had symptoms before age 15, and seventy-five per cent before age 18.²²
- A study from the US showed that half of lifetime cases of mental illness start by age 14 and seventy-five per cent by age 24.²³

Adults with mental health problems are much more likely to have other disadvantages, including:

- Lower incomes in early adulthood and into middle age.²⁴
- Lower probability of being in work in middle age.²⁵
- Increased risk of problems with their physical health, including cardiovascular disease, gum disease, serious injury, nicotine dependency, and increased risk of hospitalisation in males.^{26 27}
- Increased involvement in the criminal justice system – both as victims and perpetrators. For example, people with severe mental health problems are more likely to be a victim of violent crime than the general population.²⁸ Similarly, compared to the general population, prisoners in the UK are more likely to have a mental illness, including psychosis, personality disorder, depression and anxiety.²⁹

Child and adolescent mental health problems are costly, with the annual short-term costs estimated at £1.58 billion and the annual long-term costs estimated at £2.35 billion.³⁰ The wide range of associated adverse outcomes means that the costs affects a wide range of services including education, social care, youth and criminal justice, adult health, and welfare. As just one example, the total annual social care costs for mental disorder across CYP aged 5-15 in England are calculated at £67 million.³¹

Early intervention and quick access to good quality care is vital, especially for CYP. Mental health specialists encourage earlier and more intensive therapy to help increase the likelihood of achieving recovery and therefore lead to a lower overall cost of care.³²

There is evidence that waiting times influence engagement with treatment. In the US, a longer waiting time has been associated with refusal to engage with treatment when offered, taking into account symptom severity.³³ In Switzerland, waiting time for the first appointment has also been found to be a significant predictor of a patient's 'alliance' with their therapist.³⁴

²² Kim-Cohen, et al (2003). Prior juvenile diagnoses in adults with mental disorder: Developmental follow-back of a prospective-longitudinal cohort. *Archive of General Psychiatry*, 60(7), 709-717. Available at: <http://jamanetwork.com/journals/jamapsychiatry/fullarticle/207619>

²³ Kessler, et al. (2005). Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey replication. *Archives of General Psychiatry*, 62(6), 593-60.

²⁴ Goodman, et al. (2011). The long shadow cast by childhood physical and mental problems on adult life. *Proceedings of the National Academy of Sciences*, 108(15), 6032–6037. Available at: <http://www.pnas.org/content/108/15/6032.full>

²⁵ *ibid*

²⁶ Odgers, et al. (2007). Prediction of differential adult health burden by conduct problem subtypes in males. *Arch Gen Psychiatry*, 64(4),476-484. Available at: <http://jamanetwork.com/journals/jamapsychiatry/fullarticle/210006>

²⁷ Goodman, et al. (2011). The long shadow cast by childhood physical and mental problems on adult life. *Proceedings of the National Academy of Sciences*, 108(15), 6032–6037. Available at: <http://www.pnas.org/content/108/15/6032.full>

²⁸ Teplin, et al. (2005). Crime victimization in adults with severe mental illness. *Arch Gen Psychiatry*, 62(8), 911-921.

²⁹ Mental Health and Criminal Justice. Views from consultation across England & Wales (2016). Centre for Mental Health. Available at: <https://www.centreformentalhealth.org.uk/Handlers/Download.ashx?IDMF=83a8bfa6-678f-470e-9f49-de5c0769e752>

³⁰ Strelitz (2012). The economic case for a shift to prevention. Annual Report of the Chief Medical Officer 2012 – Our Children Deserve Better: Prevention Pays. Available at:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/252653/33571_2901304_CMO_Chapter_3.pdf

³¹ *ibid*

³² Halfin (2007). Depression: The benefits of early and appropriate treatment. *AJMC*. Available at: <http://www.ajmc.com/journals/supplement/2007/2007-11-vol13-n4suppl/nov07-2638ps092-s097..>

³³ Sherman, et al. (2009). Clinical intake of child and adolescent consumers in a rural community mental health center: does wait-time predict attendance? *Community Mental Health Journal*, 45(1), 78-84. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/18807182>.

³⁴ Kapp, et al. (2017). Identifying the determinants of perceived quality in outpatient child and adolescent mental health services from the perspectives of parents and patients. *European Child and Adolescent Psychiatry*,26(10),1269-1277. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/28382545>

Mental health support for CYP outside of specialist services

Future in Mind³⁵ clearly set out the evidence for the role of schools and colleges in the promotion of good mental health, identification of needs and as a location for the provision of initial support. Moreover, we know that many schools and colleges acknowledge this role and are keen to act on it.³⁶ Furthermore, CYP themselves value school-based mental health support and consider school-based counselling helpful.³⁷

The evidence review³⁸ commissioned to inform the Green Paper reports a number of ways in which schools are well-placed to support children with mental health issues:

- The school setting offers many opportunities for identifying CYP at risk. School staff may be particularly well placed to spot behaviours and risk factors to support the early identification of specific mental health problems (such as eating disorders and self-harm);³⁹
- The school environment is well suited to a graduated approach to children's mental health, where children at risk can be identified and a range of interventions (including prevention) can be offered to address problems;
- As the school environment can present triggers for many difficulties (such as social anxiety, test anxiety, peer influences in some conditions), there is a strong case for locating support in the school to help manage these challenges;
- The school environment is non-stigmatizing and accessible, making interventions offered in this context more acceptable to CYP, and their parents;
- There is evidence to show that staff without a mental health background, including teachers, can be trained to deliver some specific interventions, with outcomes comparable to mental health professionals.

We also know that there are interventions available for children that appear to have positive impacts on mental health/behaviour, and wider impacts on schooling, parental relationships, etc. For example:

- For conduct disorder, there are a range of interventions that can have positive outcomes, such as group and individual parenting programmes, school-based programmes, and functional family therapy.⁴⁰
- For emotional disorders such as anxiety and depression, group cognitive behavioural therapy (CBT) in a school setting has been shown to reduce depressive symptoms, and symptoms of anxiety.⁴¹
- There are a range of other types of interventions which can be helpful for different problems when delivered in schools, such as anti-bullying programmes, psychoeducation, skills based interventions, working with parents and parent programmes.⁴²

³⁵ Department of Health and NHS England (2015). Future in Mind: promoting, protecting and improving our children and young people's mental health and wellbeing. Available at:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/414024/Childrens_Mental_Health.pdf

³⁶ Marshall, et al. (2017). Supporting Mental Health in Schools and Colleges: Quantitative Survey. *Department for Education*. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/634726/Supporting_Mental-Health_survey_report.pdf. White, et al. (2017). Supporting Mental Health in Schools and Colleges: Qualitative case studies. *Department for Education*. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/634728/Supporting_Mental-health_Case_study_report.pdf

³⁷ Young Minds (2014). Report on children, young people and family engagement for the Children and Young People's Mental Health and Wellbeing Taskforce. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/413411/Young_Minds.pdf

³⁸ Kendall, Fonagy & Piling review – forthcoming.

³⁹ Eating disorders, self-harm behaviour, ADHD.

⁴⁰ Khan, et al. (2015). Investing in children's mental health: A review of evidence on the costs and benefits of increased service provision. *Centre for Mental Health*. Available at: <https://www.centreformentalhealth.org.uk/investing-in-children-report>

⁴¹ *ibid*

⁴² Kendall, Fonagy & Piling review – forthcoming.

Furthermore, the literature provides evidence of general principles for effective implementation of mental health provision in schools to support high quality delivery.⁴³

While the evidence shows that schools can have a key role in supporting CYP mental health, both identifying need and providing interventions, it also shows that not all schools and their staff are currently able to deliver this.

The most commonly used approach to identify pupils who may have mental health needs is ad-hoc identification based on concerns of members of staff, an approach which relies on staff knowledge and confidence. This was reported by 82% of schools.⁴⁴ The majority of schools also reported using other means such as information from external agencies, assessment of mental health needs alongside other assessments and use of admin data.

DfE's 2016 Teacher Voice⁴⁵ survey shows a mixed picture on how confident school staff feel about mental health and wellbeing:

- While 57% of teachers feel equipped to identify behaviour that may be linked to a mental health issues, almost a quarter (23%) did not feel equipped;
- 40% felt equipped to teach children in their class who have mental health needs, 34% did not;
- 59% knew how to help pupils access support in the school, 22% did not.

Evaluation of the Mental Health Services and Schools Link Pilots⁴⁶ found that having leads in schools helped improve knowledge and confidence among staff and the range of provision provided by schools, when supported by a lead contact in NHS CYPMHS. Around half (49%) of schools currently have dedicated leads for mental health. For 69% providing training to staff is part of this role. More generally, 90% of schools report offering some training on mental health and wellbeing to their staff (47% say they offer training to all staff, 43% to some staff).⁴⁷

3. Policy objective;

To increase support to children and young people (CYP) with mild to moderate mental health conditions in England, and to reduce the length of time that those who need specialist NHS Children and Young People's (CYP) mental health services wait for treatment.

The intended effects are:

- To improve quality of life for CYP living with a mental health condition;
- To improve outcomes for CYP living with a mental health condition;
- To reduce the severity and impact of mental health conditions and thereby:
 - improve future earnings/productivity;

⁴³ *ibid.*

⁴⁴ Marshall, et al. (2017). Supporting Mental Health in Schools and Colleges: Quantitative survey. *Department for Education*. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/634726/Supporting_Mental-Health_survey_report.pdf. White, et al. (2017). Supporting Mental Health in Schools and Colleges: Qualitative case studies. *Department for Education*. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/634728/Supporting_Mental-health_Case_study_report.pdf

⁴⁵ Smith, et al (2017). NFER teacher voice omnibus. *Department for Education*. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/584503/Teacher_Voice_Summer_2016_Report_Final.pdf

⁴⁶ Day, et al. (2017). Mental Health Services and Schools Link Pilots: Evaluation Report. *Department for Education*. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/590242/Evaluation_of_the_MH_services_and_schools_link_pilots-RR.pdf

⁴⁷ Marshall, et al. (2017). Supporting Mental Health in Schools and Colleges: Quantitative survey. *Department for Education*. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/634726/Supporting_Mental-Health_survey_report.pdf.

- reduce burden on the health and social care system;
- reduce burden on the criminal justice system.

4. Description of options considered (including status-quo);

Option 1. Do nothing

The counterfactual is the status-quo with no new national policies implemented. For the purpose of this Impact Assessment we have assumed need would remain at current levels. There is considerable uncertainty in this assumption given the latest nationally representative prevalence data was collected in 2004.⁴⁸ These figures show that in 2004, 10% of children and young people aged 5-16 had a clinically diagnosable mental health disorder.⁴⁹

Emerging evidence provides a mixed picture on trends in prevalence of mental health problems but overall suggests that proportions of CYP with mental health issues may have increased since 2004, especially among young women and girls.

- Surveys of adult mental health since 2000 have shown a steady increase in mental health issues, particularly amongst young women. Although not directly applicable to CYP, it does suggest increasing rates of mental health problems.⁵⁰
- An international study comparing mental health prevalence in 1990 and 2010 found that mental health difficulties, in particular anxiety and depression, had increased in developed countries, with the largest increases in adolescents and young adults.⁵¹
- The Adult Psychiatric Morbidity survey reports a slight increase in the proportions of young women aged 16-24 showing signs of depression and anxiety, but the rates for young men did not change substantially across the period.⁵²

Other research with population sub groups of CYP also indicate a possible increase in prevalence of needs:

- Analysis on two cross-sectional (not nationally representative) cohorts of 11-13 year olds, showed an increase in emotional difficulties for girls between 2009 and 2014. Overall levels of difficulties, as measured with the Strengths and Difficulties Questionnaire (SDQ), did not change significantly, and there was a reduction in overall difficulties in boys.⁵³
- SDQ scores for 10 to 15 year olds reported as part of the ONS Children's wellbeing measures however do not show a clear trend in the proportion with high SDQ scores (taken as an indicator of mental health issues) between 2009-10 and 2013-14.⁵⁴
- In 2015 26% of 15 year olds were indicated as being psychologically distressed, a very similar proportion

⁴⁸ Green, et al. (2005). Mental health of children and young people in Great Britain, 2004. Basingstoke: Palgrave MacMillan. Available at: <http://digital.nhs.uk/catalogue/PUB06116>

⁴⁹Ibid. 3.3% had anxiety, 0.9% had depression, 5.8% had conduct disorder, 1.5% had hyperkinetic disorder, and 1.3% had a less common disorder (made up of 0.9% with autism spectrum disorder, 0.3% with an eating disorder, and 0.1% with mutism)

⁵⁰ Children's Commissioner (2017). Briefing: Children's Mental Healthcare in England. Available at:

<https://www.childrenscommissioner.gov.uk/wp-content/uploads/2017/10/Childrens-Commissioner-for-England-Mental-Health-Briefing-1.1.pdf>

⁵¹ Fink, et al. (2015). Mental health difficulties in early adolescence: A comparison of two cross-sectional studies in England from 2009 to 2014.

Journal of Adolescent Health, 56, 502-507. Available at: [http://www.jahonline.org/article/S1054-139X\(15\)00064-6/pdf](http://www.jahonline.org/article/S1054-139X(15)00064-6/pdf)

⁵² Association for Young People's Health (2017). Key Data on Young People, Chapter 6. Available at:

<http://www.ayph.org.uk/keydata2017/FullVersion2017.pdf>

⁵³ Fink, et al. (2015). Mental health difficulties in early adolescence: A comparison of two cross-sectional studies in England from 2009 to 2014.

Journal of Adolescent Health, 56, 502-507. Available at: [http://www.jahonline.org/article/S1054-139X\(15\)00064-6/pdf](http://www.jahonline.org/article/S1054-139X(15)00064-6/pdf)

⁵⁴ ONS Children's wellbeing measures data set. Available at:

<https://www.ons.gov.uk/peoplepopulationandcommunity/wellbeing/datasets/childrenswellbeingmeasures>

to when the same measure was conducted in 2005. However this masks an increase in levels of psychological distress for girls, and a small reduction for boys between 2005 and 2014.⁵⁵

Option 2. Incentivise and support all schools and colleges to identify a Designated Senior Lead for Mental Health

This role will be voluntary and will build on the 49% of schools and colleges which already have an identified lead for mental health.⁵⁶ Decisions on who takes the role, how much time will be dedicated to the role and decisions around specific responsibilities and activities will be up to schools and colleges to decide and are likely to vary by factors such as the size of the setting, mix of other professionals on site and the needs of the pupils and students. As such schools and colleges will be able to decide what works for them. The evaluation of the school link pilot provides examples of approaches adopted by schools and colleges.⁵⁷ The Green Paper sets out more detail on what the core roles of Designated Senior Leads for Mental Health are likely to be.

In order to provide more support for existing Designated Senior Leads for Mental Health, to incentivise more schools and colleges to put leads in place and to ensure they have expertise and impact, two actions will be taken:

- The first will be a national roll-out of the schools-CYPMHS link training to all areas.
- The second will be to make funding available to leads for a suitable range of high quality training. The training fund will allow schools to choose appropriate training to build on skills and training the lead may already have. Training courses will be developed through Department for Education's (DfE) Teaching and Leadership Fund (TLIF) to support training providers to develop training packages to build the skills of Designated Senior Leads for Mental Health.

Option 3. Incentivise all schools and colleges to identify a Designated Senior Lead for mental health plus creation of new Mental Health Support Teams to provide support for those with mild to moderate mental health needs

In addition to the Designated Senior Lead for Mental Health outlined in Option 2, new Mental Health Support Teams are proposed which will comprise trained staff offering focused evidence-based interventions, with appropriate clinical supervision. This provision will be of particular benefit to children and young people who demonstrate mild/moderate conditions including: anxiety (primary and secondary school age), low mood (adolescents) and common behavioural difficulties. The Mental Health Support Teams will be linked to groups of schools and colleges, providing a clear link with, and support to Designated Senior Leads in schools and colleges and will build on existing good practice in support for CYP with mild to moderate needs.

Teams will also have a wider role supporting all CYP, and will build on relationships with wider professionals in this area (e.g. health visitors, school nurses, school counsellors, third sector provision). We envisage that teams will also train other CYP professionals and support Designated Senior Leads for Mental Health in assessment and referral.

There is expected to be a phased rollout of this policy. Initial implementation will be through a trailblazer approach, allowing local innovation, development and testing of different delivery models. The trailblazer approach will inform later phases of the rollout. The approach to the trailblazers will be informed by responses to the consultation on the Green Paper.

⁵⁵ Lessof, et al. (2016). Longitudinal Study of Young People in England cohort 2: health and wellbeing at wave 2. *Department for Education*. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/599871/LSYPE2_w2-research_report.pdf

⁵⁶ Marshall, et al. (2017). Supporting Mental Health in Schools and Colleges: Quantitative survey. *Department for Education*. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/634726/Supporting_Mental-Health_survey_report.pdf

⁵⁷ Day, et al. (2017). Mental Health Services and Schools Link Pilots: Evaluation report. *Department for Health*. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/590242/Evaluation_of_the_MH_services_and_schools_link_pilots-RR.pdf

For the purpose of this analysis we have modelled a linear timeline to full rollout, shown below. This timeline is purely illustrative and does not reflect commitments.

2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
5%	10%	15%	20%	25%	40%	55%	70%	85%	100%

The new Mental Health Support Teams have not been considered as a stand-alone option without the Designated Senior Leads for Mental Health because the Leads will provide the crucial link between teams and schools and colleges and will have a joint role in the management of the teams, ensuring school needs are considered and met.

Option 4: Options above plus CYPMHS waiting time pilots

As well as investing in new Mental Health Support Teams and supporting and incentivising Designated Senior Leads for Mental Health in schools and colleges, we will pilot new service delivery models that are able to achieve reduced waiting times for access to NHS funded CYP's mental health services to ensure that CYP with diagnosable mental health conditions receive faster access to the appropriate support that they require. The reduced waiting times will be piloted in some of the Trailblazer areas for the new Mental Health Support Teams.

There is significant uncertainty around the expected cost to reduce waiting times. For example, there is uncertainty around the current prevalence of mental health disorders among CYP and the impact of the new Mental Health Support Teams on referrals to CYPMHS. Piloting the introduction of such a standard will enable us to make a fuller assessment of the costs and benefits of establishing a waiting time standard.

The details of how these pilots will be implemented are under development with the geographical size and location, number of pilots and selection criteria still to be determined. We expect they will be accompanied by an evaluation with central support. Evaluating the pilots will enable us to build a clearer understanding of costs, benefits and implementation challenges, as well as gathering and sharing best practice to feed back into services.

Without investing in prevention and early intervention for mild to moderate mental health problems, as provided by Option 3, demand for CYPMHS services could continue to rise making it difficult to deliver a waiting time standard. Therefore, the waiting times pilots have not been considered as a stand-alone option.

5. Monetised and non-monetised costs and benefits of each option (including administrative burden);

Option 1: Do nothing

As described above, due to an absence of up to date national data on prevalence for all disorders and ages on which to base assumptions of future prevalence, for the purpose of this assessment we have assumed the counterfactual is the prevalence of mental health disorders in CYP remaining stable at 10% over the evaluation period.

The costs and benefits of not intervening are set at 0, and the costs and benefits of other options are assessed against this benchmark.

Option 2 Incentivise and support all schools and colleges to identify a Designated Senior Lead for Mental Health

Costs

All financial costs are associated with the provision of training for Leads. The cost of the roll out of the schools-CYPMHS link training is estimated to be around £7.6m, likely to be spread over five years. To support the development of a suitable range of high-quality training, DfE will use their Teaching and Leadership Innovation Fund (TLIF) to support training providers to develop training packages to build the skills of Designated Senior Leads for Mental Health in schools and support the delivery of whole school approaches. The amounts to be provided to schools and colleges will be confirmed once the cost of what is developed is clear. However, we will aim to cover the costs of a significant training programme and provide up to £15-20m each year from 2019 to cover costs until all schools have had chance to train a Lead (assumed to be 5 years for this Impact Assessment). These costs and timings are still subject to change as implementation plans will be developed using responses to the consultation on the Green Paper. These indicative costs have been included for the purposes of completing this Impact Assessment, and the central estimate of £17.5m per year has been used as the descriptive training cost in the modelling. The sensitivity of the total costs of the Option to the annual cost being £15m or £20m has been explored in the sensitivity analysis – see Sensitivity Analysis section.

Therefore, we have assumed that the total cost of Option 2 would be:

Total cost of Option 2, in £m, rounded to the nearest £0.5. Total present value cost: £83m

	2018- 2019	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024
Joint school link	0	1.5	1.5	1.5	1.5	1.5
Lead training	0	17.5	17.5	17.5	17.5	17.5
Total cost (undiscounted)	0	19	19	19	19	19
Total present value cost ⁵⁸	0	17.8	17.1	16.6	16.0	15.5

Unquantified costs

The evaluation of the first schools-CYPMHS link pilot⁵⁹ did not indicate an impact on referral numbers to CYPMHS, but we cannot be certain of whether scaling up and wider rollout of the programme will have an impact on referrals. However, we do not anticipate that this option would have a significant impact on workload for CYPMHS (the pilot evaluation cautiously identified that there was not an increase in CYPMHS referrals overall and found that in many areas the programme contributed towards a reduction in referrals to CYPMHS for children who do not meet the threshold for specialist treatment). However, there is a risk that, without the additional support, proposed to be provided via Mental Health Support Teams as part of option 3, there could be an expectation that schools provide support that may not have the capacity and expertise for.

⁵⁸ We have discounted the costs and benefits throughout the IA to the current year (2017/18). Discounting is based on the principle that, generally, people (and society as a whole) prefer to receive goods and services now rather than later. The discount rate is used to convert costs and benefits falling in different time periods to 'present values', so that they can be compared. For an explanation of discounting throughout this document, please see the Green Book at https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/220541/green_book_complete.pdf

⁵⁹ Day, et al. (2017). Mental Health Services and Schools Link Pilots: Evaluation report. *Department for Education*. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/590242/Evaluation_of_the_MH_services_and_schools_link_pilots-RR.pdf

There is an opportunity cost of the time spent by Designated Senior Leads for Mental Health on the roles, which could otherwise be spent on different tasks. However, we have not quantified this opportunity cost for a number of reasons: the role is voluntary, the time spent would be determined by individual schools, and we currently have no evidence of the benefits of other tasks that would otherwise be completed.

Similarly, the time Leads spend training could be spent on other training activities. We have not quantified this opportunity cost as we do not yet know how much time Leads will spend training. The amount of training required depends on individual need, and the requirements of the school or college. The grading of the individual taking the Lead role could vary from an assistant teacher through to a Senior Leadership Team (SLT) grade. Furthermore, we expect that all school staff undertake continuing professional development (CPD) within their role, and we do not have information on the benefits of any training that would otherwise have been completed.

Wage costs could be used to calculate this opportunity cost, however given the high level of uncertainty as outlined above we are not able to robustly quantify the size of this opportunity cost. To give an indication of the scale of this cost, depending on the grade of the Designated Senior Lead, we have instead calculated a range of minimum opportunity costs associated with attending one full day of training, based on salary costs across the different grades.

Grade	1 full day of training ⁶⁰	Hourly wage ^{61,62,63}	Total opportunity cost of training
Classroom teacher (MPR) ⁶⁴	6.5	£29.32	£190.18
Classroom teacher (UPR) ⁶⁵	6.5	£38.65	£250.75
Lead practitioners	6.5	£48.12	£312.19
Assistant Head	6.5	£51.81	£336.13
Deputy Head	6.5	£56.05	£363.61
Head	6.5	£69.17	£448.73

Benefits

We anticipate that schools and colleges identifying Designated Senior Leads for Mental Health, a further roll-out of the schools-CYPMHS link training, and the associated training for Designated Senior Leads, will lead to benefits for CYP mental health, teachers, schools and colleges and the wider system.

The evidence from the evaluation of the first school-CYPMHS link pilot⁶⁶ and the survey on supporting mental health in schools and colleges⁶⁷ suggests that better school and specialist services links would likely lead to increased knowledge of respective issues and pressures and improved communication, and together with better identification and assessment of need will be associated with improvements in referral pathways leading to more appropriate and timely referrals.

Having better informed, more knowledgeable Leads would likely have a positive impact on CYP outcomes through increased attention to mental health in the curriculum, staff training and related staff confidence in supporting

⁶⁰ Assuming an average working day of 6.5 hours.

⁶¹ We have taken an average of salaries across primary and secondary school.

⁶² These figures include on-costs (include employers' pension (16.48%) and national insurance contribution).

⁶³ All costs are given in 2017/18 prices; they are subject to increases across the life of the policy predicted at a 1% increase rate.

⁶⁴ MPR – Middle pay range

⁶⁵ UPR – Upper pay range

⁶⁶ In the first school and NHS CYPMHS link pilot, a total of 22 areas, incorporating 27 CCGs and 255 schools, were funded to establish named Lead contacts within NHS CYPMHS and schools. They also participated in 2 joint planning workshops, involving other professionals from their local NHS CYPMHS network. Day, et al. (2017). Mental Health Services and Schools Link Pilots: Evaluation report. *Department for Education*. Available at:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/590242/Evaluation_of_the_MH_services_and_schools_link_pilots-RR.pdf

⁶⁷ Marshall, et al. (2017). Supporting Mental Health in Schools and Colleges: Quantitative survey. *Department for Education*. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/634726/Supporting_Mental-Health_survey_report.pdf

pupils. Schools would likely have more activities in place to promote positive mental health and more support for pupils with identified health needs. Higher levels of engagement with parents are also anticipated.

Furthermore, we assume that additional training and access to support through Leads will improve the mental health knowledge of teachers and wider school and college staff, making them more able to spot the first signs of mental health issues. We also expect wider impact on the school and colleges environments in terms of whole school/college approaches and as part of their pastoral systems.

The above assumptions on the outcomes and impacts of the wider roll-out of school/college and CYPMHS links are based on the evidence from the first phase of the pilots and the survey on provision of support in schools. Additional evidence will be gathered through the evaluation of the Phase 2 school/college-CYPMHS link pilot and will be further tested through the evaluation of the proposed Trailblazers, described above in relation to Option 3. In addition, the Trailblazers will be able to provide further insight on the impact of the model on overall number of referrals from schools to CYPMHS.

Option 3: Incentivise all schools and colleges to identify a Designated Senior Lead for mental health, plus creation of new Mental Health Support Teams to provide support for those with mild to moderate mental health needs

Costs

This option will include the costs estimated for Option 2, which were quantified as £83.0m in total present value cost.

In addition, it is estimated that nationally approximately 8,000 FTE would be employed within the Mental Health Support Teams at an annual financial cost of £360m (at full roll out).

Each team will vary in terms of staff numbers and seniority dependent on the schools and colleges that it serves. We would anticipate that teams would be mostly comprised of practitioners (band 4/5/6) with supervisors and management (bands 7/8) and admin support.

This is an appropriate level of staffing to provide an offer of support to children with mental health needs according to clinical advice. The exact staffing ratios will of course need to be determined according to local circumstances, and will be informed through responses to the Green Paper consultation and will be tested by initial Trailblazer sites.

Total costs include 28% on-costs, 20% overheads, and training costs for the new workforce of c. £8m per annum for the first 9 years.

For the purposes of this analysis, we have estimated the following annual costs of Mental Health Support Teams over the next ten years. This rollout profile is illustrative only, and long-term funding will clearly be subject to future spending reviews:

Total cost of Mental Health Support Teams, in £m, rounded to the nearest £0.5m.

Total present value cost: £1,223m

Year	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
Rollout	5%	10%	15%	20%	25%	40%	55%	70%	85%	100%
Total cost (undiscounted)	18.0	36.0	54.0	72.0	90.0	144.0	198.0	252.0	306.0	360.0

Total present value costs	18.0	34.8	50.4	64.9	78.4	121.2	161.1	198.1	232.4	264.1
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Unquantified costs

Unquantified costs would include those described for Option 2. Additionally, there would be opportunity costs of CYP spending time taking part in interventions: the learning that could have taken place, and its associated benefits. However, it is not possible to robustly quantify these costs, given the school-specific approach that will be taken in offering interventions. For example, the opportunity cost would differ depending on when the interventions take place, such as during teaching time, before/after school, or during break times. Additionally, CYP who take part in interventions may be a non-representative set of pupils who are more likely to be absent from school/college, e.g. who are more frequently ill.

There may also be a cost burden on CYPMHS if the number of referrals requiring treatment rises due to more accurate identification and assessment of children with mental health conditions. However, we expect that the earlier intervention provided by new Mental Health Support Teams would eventually reduce this impact. We have not quantified this impact at this stage and will look to Trailblazers to examine this in more detail.

Total quantified costs

The total quantified costs of Option 3 are therefore estimated as follows:

Total cost of Option 3, £m, rounded to the nearest £0.5m.

Total present value cost: £1,265m

	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
Total cost (undiscounted)	18.0	55.0	73.0	91.0	109.0	163.0	198.0	252.0	306.0	360.0
Total present value cost	17.4	51.4	65.9	79.3	91.8	132.6	155.6	191.4	224.5	255.2

Benefits

In addition to the benefits of Option 2, there would be health and wider societal benefits from the interventions delivered through Mental Health Support Teams.

As Support Teams, with input from schools and colleges, will have discretion over specific interventions delivered (the most appropriate interventions will depend on the local context), we have quantified the magnitude of the expected benefit using an illustrative sample of targeted interventions for children with mild to moderate mental health conditions, for which good evidence of impact exists. While this analysis provides us with estimates of benefits of this Option, it is not exhaustive in the interventions included and relies on many assumptions. Therefore, it is important to note that the presumed benefits below are limited by the assumptions made.

We would expect support teams to deliver targeted interventions in schools that either

- i) have evidence of being cost-effective, or
- ii) are innovative interventions with emerging evidence about effectiveness or cost-effectiveness.
- iii) In either case, we would expect teams to monitor and evaluate the impacts, and we intend to commission a central evaluation of the Trailblazers which will also consider the effectiveness of the interventions employed by teams.

Benefits of targeted programmes/interventions by teams

In order to estimate illustrative benefits of delivering interventions by the Mental Health Support Teams, we have used evidence of cost-effectiveness of established specialist programmes.

We are defining specialist interventions as interventions or therapies that are delivered by a mental health professional and that are targeted to address a certain condition or need. An example would be cognitive behavioural therapy, either in 1:1 sessions or in a group.

Other support could take a variety of forms, and not necessarily an intervention delivered by a mental health professional. This support would offer advice and counsel to children with a need, and may possibly include interventions delivered by trained teachers and school staff.

For the cost benefit analysis we have been able to consider evidence for the following established specialist interventions:

Conduct disorder: Aggression Replacement Therapy (ART)

Anxiety and Depression: Cognitive Behavioural Therapy (CBT)

ADHD: Incredible Years Parent Training

These interventions are recommended as cost-effective by the Centre for Mental Health (2013)⁶⁸. We have applied benefits as estimated by Dartington's Social Research Unit's *Investing in Children* work (2013).⁶⁹ As we are consulting on the details of the policy, the benefits of these interventions should be treated as illustrative benefits of the Option, and we do not know at this point which interventions will be delivered by teams, and effectiveness of treatments are likely to vary⁷⁰.

Adapting the academic cost effectiveness estimates to calculate benefits

Dartington's Social Research Unit provides estimates of impacts specifically for the UK. These are based on the US Washington State Institute for Public Policy (WSIPP) model for the US⁷¹. This model uses meta-analysis to estimate the short-term impacts of interventions on short-term outcomes such as test scores or diagnosis with a mental health disorder. The meta-analysis considers international evidence, and as such, estimated short-term impacts are not specific to the UK. However, Dartington's work then estimates long-term impacts specifically for the UK context.

The analysis uses longitudinal data to predict the lifetime effects of the short-term impacts in order to estimate the long-term benefits of interventions on the UK economy, through NHS usage, the justice system, and earnings. The model estimates the impact on earnings through two different pathways: the impact of increased educational attainment on earnings, as well as the impact of improved health on reductions in sickness absence.

The healthcare use counterfactual modelled throughout the model is the usual treatment that would occur in the absence of these interventions, estimated through various surveys. The healthcare resources costed include contact with paediatricians, paediatric inpatient stays, community nurses, school nurses, dieticians, physiotherapists, occupational therapists, speech therapists, and visits to A&E. The model covers the following disorders: conduct disorder, depression, anxiety, ADHD.

⁶⁸ Khan, et al. (2015). Investing in children's mental health: A review of evidence on the costs and benefits of increased service provision. *Centre for Mental Health*. Available at: <https://www.centreformentalhealth.org.uk/investing-in-children-report>

⁶⁹ <http://investinginchildren.eu/>

⁷⁰ Weisz, et al. (2017). What five decades of research tells us about the effects of youth psychological therapy: A multilevel meta-analysis and implications for science and practice. *American Psychologist*, 72(2), 79 – 117.

⁷¹ The Social Research Unit at Dartington (2013). Investing in Children: Technical Report. Available at: [http://investinginchildren.eu/reports/Investing%20in%20in%20Children%20-%20Technical%20Report%20\(September%202013\).pdf](http://investinginchildren.eu/reports/Investing%20in%20in%20Children%20-%20Technical%20Report%20(September%202013).pdf)

There will be benefits to other government departments (OGDs) from these interventions. Increased earnings will increase tax receipts, benefitting HMRC, and decrease reliance on social support, benefitting Department for Work and Pensions. Reduced crime will generate savings to the Home Office and Ministry of Justice.

The model outputs are estimated savings to the NHS, benefit of increased earnings, and savings due to decreases in crime. The model relies on improvements in health (which is measured by looking at quality and quantity of life) to quantify these outputs. Typically, these improvements would be monetised using ‘quality adjusted life years’, or QALYs (a generic measure of health status, or health gain). However we are not able to calculate QALYs for these interventions, and so we cannot monetise the impacts/improvements in health in this model⁷². Instead, we have used the estimates from the research above to estimate the average indirect benefit of NHS savings and productivity improvement, for each disorder considered.^{73 74} It is estimated that additional funding to the NHS would result in one QALY purchased for each additional £15,000. There is also evidence that one QALY is valued by society at £60,000. Therefore, each £1 saved in the NHS will generate £4 worth of benefits, and we have accounted for this in our estimates of the value of NHS savings throughout this document. The estimates are shown in the table below:

Estimated benefits of different interventions, per child participating in an intervention rounded to the nearest £100

Type of illness	NHS saving (£)	Productivity (£)
Conduct disorder - ART	0	4,500
Anxiety - CBT	10,500	5,400
Depression - CBT	8,500	5,400
ADHD - Incredible Years parent training, primary participant	200	300
ADHD - Incredible Years parent training, secondary participant	1,500	600
Average	4,200	3,200

While there will also be benefits to government and society of reductions in crime, we have chosen not to use estimates from this model, because we have judged these as not sufficiently robust due to the underlying data on the number of offences and sentences received being out of date.

As previously mentioned, Mental Health Support Teams and the schools and colleges they work with would have discretion over which interventions they choose to implement.

Due to this uncertainty, we cannot estimate the specific cost-effectiveness of the whole range of interventions Support Teams would deliver. We expect Support Teams would implement effective programmes from the beginning, and improve in their effectiveness as learning improves. However, given the absence of evidence, we have halved the benefits in order to be conservative in our approach and account for this uncertainty. We have used the average benefit in each domain across all interventions considered. This is due to a lack of evidence about the number of cases of each different disorder we expect to be treated as well as the broad range of estimates for the benefits of different interventions.

Further, estimates from the UK are difficult to obtain and there is significant discrepancy between recovery rates internationally and the UK. Estimates of rates of improvement in the groups targeted are also higher when

⁷² Quality adjusted life years, or QALYs, are a measure of health status or health gain. One QALY is one year of life in full health, 2 years of life at half of full health is also equivalent to one QALY. The benefit of a health policy or intervention is measured in terms of QALYs generated. It is estimated that one QALY is worth £60,000

⁷³ Benefits in adulthood from interventions in childhood are always difficult to estimate robustly, and we will continue to review the possibility of double-counting and the best way to estimate as accurately as possible.

⁷⁴ The base year for monetary values in this model is 2011. We have therefore inflated this to 2016/17 prices using the GDP deflator. The base discount rate used is 3.5% p.a. The costs and benefits are assessed over a person’s lifetime.

considering RCT evidence compared observations in unselected presentations to CYPMHS. This is another reason why we halve the benefits to account for this uncertainty.

Therefore, our best estimate for the benefits in each domain is shown in the below table:

Estimated benefits of each domain, per child participating in an intervention rounded to the nearest £100

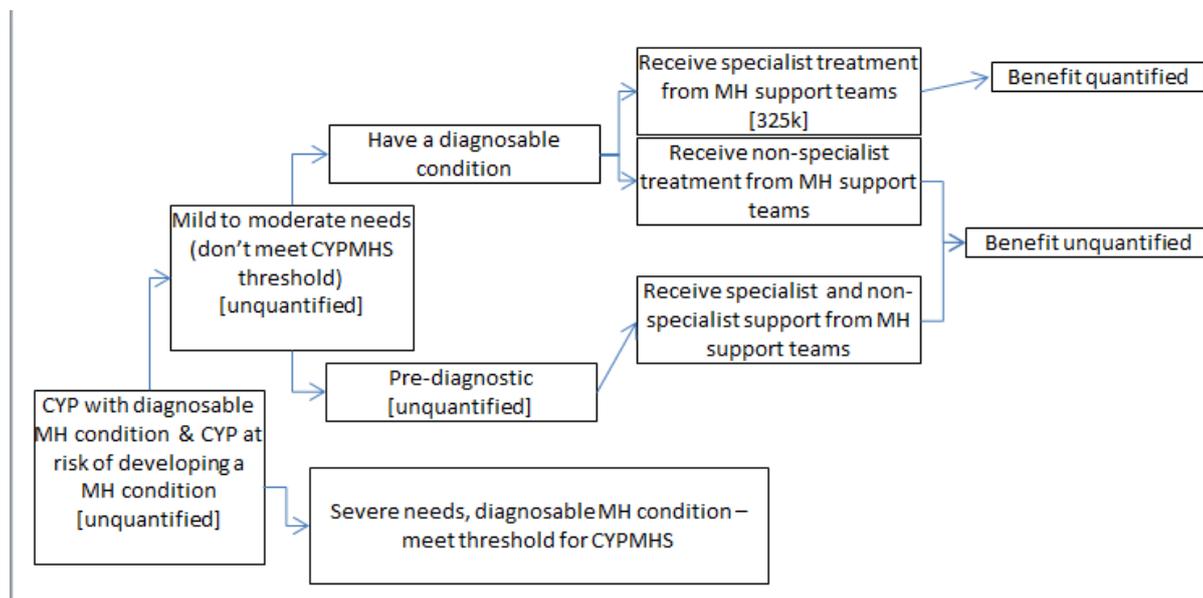
NHS saving (£)	2,100
Productivity (£)	1,600

To estimate the total benefits of these interventions, we estimate the number of CYP with a diagnosable mental health condition who would receive a specialist intervention from the new teams.

We estimate that of those CYP with a diagnosable mental health condition who are not currently referred to CYPMHS services, 60% would require specialist support (470k). We have made a further (conservative) assumption that 60% of that group will receive specialist support from the new Mental Health Support Teams (280k), in order to be able to quantify the benefits of the teams⁷⁵.

In addition, we assume 50% (45k) of those currently receiving only one CYPMHS contact will receive specialist support from the new Mental Health Support Teams. Hence, for the modelling of the benefit we have assumed the teams will offer specialist support to 325k children with a diagnosable health condition.

325k is only a partial estimate of the total number of CYP who we expect will be supported by the new teams. The groups of CYP who are anticipated to receive support from Mental Health Support Teams are shown in the diagram below:



There is a significant number of CYP with a need that would benefit from non-specialist support from Support Teams, but because the evidence we are using focuses on the benefit of specialist interventions for CYP with a diagnosable condition, we have not monetised the benefit of non-specialist support.⁷⁶

⁷⁵ Assumptions are based on conversations with clinical experts: Professor Miranda Wolpert, Professor Stephen Pilling, Professor Tim Kendall, and Professor Peter Fonagy.

⁷⁶ Based on estimated prevalence from Green, et al. (2005). Mental health of children and young people in Great Britain, 2004. Basingstoke: Palgrave MacMillan. Available at: <http://digital.nhs.uk/catalogue/PUB06116>
 Assumptions are based on conversations with clinical experts (Professor Miranda Wolpert, Professor Stephen Pilling, Professor Tim Kendall, and Professor Peter Fonagy).

Due to a lack of evidence of the prevalence of lower level needs we have also not made an estimate of the benefits for the number of CYP with lower level needs but without a diagnosable condition. In the absence of the policy, these CYP would not be referred to CYPMHS and would not receive support, but they would likely be supported by the new Mental Health Support Teams and benefit from improved quality of life.

Note that the costs of the Mental Health Support Teams have been estimated with the aim of creating sufficient capacity to both CYP who need specialist support (quantified) and those who would receive non-specialist support (not quantified) (see the Sensitivity Analysis section for the impact of a larger number of children receiving specialist support from teams).

We have applied the average saving in each domain above for each of the 325,000 CYP estimated to receive specialist support from Mental Health Support Teams. In the counterfactual we assume that none of these CYP would have received the same benefit from other services (CYPMHS, voluntary sector) – we vary this assumption in the sensitivity analysis (see Sensitivity Analysis section).

Total quantified benefit of Option 3: Estimated discounted benefits of Mental Health Support Team interventions, in £m, rounded to the nearest £0.5m.

Total present value benefit: £3939m

	2018 - 19	2019 - 20	2020 - 21	2021 - 22	2022 - 23	2023 - 24	2024 - 25	2025 - 26	2026 - 27	2027 - 28
% rollout	5%	10%	15%	20%	25%	40%	55%	70%	85%	100%
Number of CYP receiving an intervention (thousands)	16,250	32,500	48,750	65,000	81,250	130,000	178,750	227,500	276,250	325,000
NHS saving from interventions	33.8	67.7	101.5	135.4	169.2	270.8	372.3	473.8	575.4	676.9
Productivity from interventions	26.1	52.3	78.4	104.6	130.7	209.1	287.5	365.9	444.4	522.8
Total benefit (undiscounted)	60.0	120.0	180.0	239.9	299.9	479.9	659.8	839.8	1019.7	1199.7
Total present value benefit	58.0	112.0	162.3	209.1	252.5	390.4	518.6	637.7	748.2	850.5

Unquantified benefits

Impact on CYPMHS

The Mental Health Support Teams may have an impact on the number of CYP with severe conditions who are referred to and treated in CYPMHS. In the short-term demand for specialist services may increase as identification and referral of CYP with serious needs may increase. We have not quantified the health (or wider) benefits resulting from additional CYP being treated by CYPMHS as we do not have evidence for the magnitude of this effect.

It could also impact the number of CYP who are currently referred and do not meet the threshold for specialist treatment. In the long-term, we would expect referrals to CYPMHS to decrease as CYP's disorders are dealt with at an earlier stage, better self-managed, and are stopped from reaching a crisis point. This would reduce the burden on CYPMHS. However, we would always expect there to be a proportion who still need specialist support.

The Trailblazers will allow for evaluation of this impact, in the meantime we leave this impact un-monetised but estimate an illustrative per-child benefit of treatment in CYPMHS, for CYP with severe conditions who would be

identified as needing CYPMHS treatment by Mental Health Support Teams, who would then be treated by CYPMHS. These estimates can be found in the Annex.

Other unquantified benefits

There are a number of areas where we might expect improvements to be seen, however we have not found robust evidence of these effects to allow these to be quantified:

- We have not quantified the benefits to CYP with mild and moderate needs that are likely to receive other (non-specialist) support from Mental Health Support Teams, which we believe represents the majority of CYP with unmet need. They are likely to benefit in terms of short term and long term outcomes but as the evidence available focuses on specialist support, we have limited our analysis to those that we expect to receive these specialist interventions from Mental Health Support Teams.
- The health gains that would result from improved quality and quantity of life for CYP as a result of the new Mental Health Support Teams.
- The health benefits to carers if their anxiety decreases due to their child receiving treatment, if the child would otherwise have not received treatment. While we have estimated savings to the NHS, it is also plausible that there may be savings in future social care costs, falling to individuals and local authorities.
- In addition, there may be improvements in physical health – as outlined above, individuals with mental health disorders have an increased risk of physical health conditions. We have not quantified these due to a lack of evidence.
- We would also anticipate impacts on a number of other outcomes including some shorter-term cost savings to the school system. For example, pupils with mental health problems were 17 times more likely to be excluded from school.⁷⁷ This is indicative of wider behaviour and conduct problems, which can disrupt the pupil's education, their peers' education, and have costs to teachers and schools relating to the management of these problems. New Economy Manchester estimated that the economic cost of exclusion was £9,748 per person, per year.⁷⁸
- Similarly, according to teachers, CYP with mental health issues are 7.5 times more likely to truant.⁷⁹ New Economy Manchester estimated that the total societal cost associated with truancy was £2,351 per person, per year.⁸⁰ There is also likely to be less pressure on special education needs and disability (SEND) services.

Whilst the fiscal and economic benefits associated with these outcomes are sizable, we exclude these from our quantified estimates, for two reasons. First, robust evaluations of the causal impact of mental health interventions on truancy and exclusion are unavailable. Second, the economic returns associated with truancy and exclusion in part stem from improved attainment and productivity – to the extent that these impacts are already captured in the benefits estimates, there is a risk of 'double counting'.

However, it should be noted that the benefits to a pupil's peers, their teachers, and their school are likely to yield a significant economic return, over and above those captured in the benefits calculation.

⁷⁷ Meltzer, et al. (2003). Persistence, onset, risk factors and outcomes of childhood mental disorders. Available at: http://webarchive.nationalarchives.gov.uk/+/http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsStatistics/DH_4081089

⁷⁸ New Economy Manchester, Unit Cost Database *Costs are in 2015/2016 prices

⁷⁹ Meltzer, et al. (2003). The mental health of children and adolescents in Great Britain. *International Review of Psychiatry*, 15(1-2),185-7. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/12745331>

⁸⁰ New Economy Manchester, Unit Cost Database *Costs are in 2015/2016 prices

Option 4: Incentivise all schools and colleges to identify a Designated Senior Lead for mental health, plus creation of new Mental Health Support Teams to provide support for those with mild to moderate mental health needs, plus pilot new service delivery models to reduce waiting times in CYPMHS

Costs

We expect the CYPMHS waiting times pilots will be supported by funding and an evaluation. For the purpose of this analysis, we assign a total cost of c. £50m⁸¹ between 2018/19 to 2020/21. Long-term funding is subject to future spending reviews.

The details of how pilots will be funded are also to be determined. We are seeking views on what criteria should be used to choose the pilot areas, but to make the pilot as successful as possible we will want to select a variety of areas to represent areas with differing waiting time (from long waiting times to shorter ones) in order to best help assess the benefits and challenges and provide information on how the waiting time standard should be adapted before being rolled out nationally. We will release more information on the selection of areas and the phasing of the implementation following the consultation period.

Therefore, the total cost of Option 4 would be:

Total cost of Option 4, in £m, rounded to the nearest £0.5m.

Total present value cost: £1,309m

	2018 - 19	2019 - 20	2020 - 21	2021 - 22	2022 - 23	2023 - 24	2024 - 25	2025 - 26	2026 - 27	2027 - 28
Total cost (undiscounted)	26.0	75.0	93.0	91.0	109.0	163.0	198.0	252.0	306.0	360.0
Total present value cost	25.1	70.0	83.9	79.3	91.8	132.6	155.6	191.4	224.5	255.2

Benefits

Piloting approaches to achieve shorter waiting times will allow us to make a fuller assessment of the feasibility of establishing a waiting time standard.

It is assumed that piloting a waiting times standard will decrease waiting times, and therefore there would be a quality of life gain for the individual for the period of time that they are no longer waiting. We expect that there will also be a substantial benefit to CYP waiting for treatment, as well as their families, of reduced anxiety and distress while waiting. Caution is required however to ensure waiting times are not reducing through a reduction in quality or overall access.

If diagnosis and treatment can lead to a sustained improvement in quality of life, there is also a benefit derived from the reduction in the amount of time CYP experience a lower quality of life. There is limited evidence around the impact of reduced waiting times on long term outcomes. However, we expect that reducing waiting time would result in better engagement with treatment, and a decreased risk of deterioration while waiting. Therefore it is plausible that it will increase the probability of a sustained improvement in health following treatment. It may also result in savings to the NHS if it prevents CYP from going into inpatient care.

⁸¹ Estimate of the cost to be on track to deliver a reduced waiting time for 20-25% of the country by end of 22/23, as detailed in the Green Paper, this is based on stock and flow modelling of current activity (best estimate based on 16/17 MHSDS data and 2016 NHS Benchmarking data) and future activity (conservative estimate that referrals will increase by 10% per annum). There are significant uncertainties around these estimates, for this reason they are purely illustrative to indicate a scale of cost, more accurate information will be generated through the pilots.

We have not monetised the benefit of a reduction in waiting time, but look to the evaluation of the waiting time pilots to inform the impact if rolled out nationally. This is due to uncertainty around the number of weeks that average waiting times will reduce by, as this is dependent on the areas in which the pilots take place. Our break-even analysis found that six weeks is the minimum amount of weeks that average waiting times would have to reduce by (in the pilot areas) in order for the benefit to outweigh the cost. In this analysis, we have only considered the benefit to CYP from the reduction in the proportion of their life they spend with pre-treatment quality of life. As there will be other benefits, mentioned above, six weeks is an over-estimate, and the number of weeks that average waiting times need to reduce by in order to cover the cost will likely be lower. Given the ultimate ambition of all CYP being seen within four weeks, and the current average waiting time of 12 weeks, we believe it is very likely that the benefits of the waiting times pilots will outweigh their costs.

The detailed calculations for this break-even analysis can be found in the Annex.

Given the uncertainty around the number of weeks that average waiting times will reduce by we have not been able to quantify the expected benefits. Therefore, the total quantified benefit of Option 4 is equal to the total quantified benefit of Option 3.

Risks

There are risks of applying the evidence we have used to the benefits of the policies above.

1. Dartington’s simulation model uses estimates of impacts from the US, which may not be applicable to the UK context. In addition, we have not been able to find evidence for treatments of all mental health conditions, and we have not been able to weight the evidence on treatments we have found by the relevant prevalence rates, due to lack of information of the relative prevalence of disorders by severity, and some CYP having more than one mental health disorder.
2. There is a risk that our approach of taking the average impact of a variety of interventions, in Option 3, is not appropriate. The effectiveness of interventions will vary based on the condition considered, the severity, and other contextual factors. We have pursued a simplistic approach to attempt to estimate the magnitude of the impact we can expect from the policies, due to a lack of specific evidence.
3. Policy Option 2 assumes that schools and colleges will be incentivised to identify a Designated Senior Lead for Mental Health and that Leads will be able to take up the training offer.
4. Policy Options 3 and 4 require a large expansion in the mental health workforce, the analysis presented assume that this demand can be met.
5. For Options 3 and 4, we have not been able to quantify the impact of the schools’ service on CYPMHS. While we expect these options to decrease demand for CYPMHS in the long-run, there is a lack of evidence around the short-term impact.
6. The costs and benefits are highly sensitive to the assumption that in the counterfactual, prevalence remains stable at the latest measured levels. There is a risk, based on indicative evidence, that prevalence has increased.

Sensitivity analysis

We have undertaken sensitivity analysis around the assumptions affecting the quantified benefit of Options 3 and 4. We have varied the assumptions in the table below:

<i>Options 3 and 4 quantified benefits assumptions</i>	PV benefits, central case	PV benefits, low case Low NPV	PV benefits, high case
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1. Adjustment to average benefit:cost ratio to account for uncertainty in interventions chosen	50%	50%	100%
2. Number of CYP receiving targeted intervention in school	325,000	162,500	515,000
3. Percentage of CYP who would have got the same benefit in CYPMHS	0%	5%	0%

Firstly, we have modelled a best case scenario of all interventions delivered being cost-effective at the rate estimated by Dartington’s Social Research Unit (100% effectiveness). Giving us a central and higher estimate of the benefit, we have not modelled a lower estimate here.

We have also varied assumption 2 by increasing the number of CYP receiving targeted intervention in schools to 515,000 (based on 100%⁸² of CYP currently not referred to CYPMHS who would benefit from specialist treatment receiving it from Mental Health Support Teams). We have also halved our central assumption of 325,000, to account for uncertainty in the current and future prevalence of mental illnesses in CYP. This gives us a lower, central and higher estimate of the benefit.

In addition, we have modelled the case of 5% of CYP from whom we quantify benefits in Options 3 and 4 being otherwise treated by CYPMHS and therefore gaining no additional benefits from the policy. This gives us a low and central estimate; here we have not modelled a high estimate.

The resulting estimated benefits in the case of varying each assumption separately is shown below:

Options 3 and 4 benefits – sensitivity analysis	PV benefits, low case (£)	PV benefits, high case (£)
Adjustment to average benefit:cost ratio to account for uncertainty in interventions chosen	3939m	7879m
Number of CYP receiving targeted intervention in school	2024m	6242m
% who would have got the same benefit in CAMHS	3742m	3939m

We have also varied the assumptions together, taking the ‘best case’ as all inputs falling halfway between the best and central case scenarios, and the ‘worst case’ as all inputs falling halfway between the worst and central case scenarios. The results are shown in the table below:

	PV benefits, low case (£)	Present value benefits, high case (£)
Adjustment to average benefit:cost ratio to account for not all policies being cost effective	2907m	7636m
Number of CYP receiving targeted intervention in school		
% who would have got the same benefit in CAMHS		

We have also undertaken sensitivity analysis around the assumptions affecting the quantified costs of Option 2. From the Schools-CYPMHS link pilot, we can estimate that the cost of the roll out of the schools-CYPMHS link training is around £7.6m, likely to be spread over five years. However, there is less certainty around the cost of Lead training. This cost is subject to change as implementation plans are developed. In order to provide a more accurate range of costs we have taken a lower, central and higher estimate of this cost.

If the annual costs are £15m, the present value cost of Option 2 is £70.8m. If the annual costs are £20m, the present value cost of Option 2 is £93.8m.

⁸² Advice from clinical leads is that this is not an accurate assumption based on experience – there is an overlap of cases

There is also uncertainty around the cost of Options 3 and 4. However, the main uncertainty is around the efficiency of the labour input in the staffing cost model (i.e. how many CYP one FTE can support). The main effect of varying this assumption will be changing the number of CYP that can be supported, and this has already been analysed in the sensitivity analysis of the benefits above.

Conclusion

Given the conservative approach taken in estimating the monetised benefits and the potential scale of the unmonetised benefits, we consider it reasonable to support that all options outlined in this assessment are cost-effective.

Areas of evidence/information/assumptions that can be further informed through consultation

We have considered the available published evidence in order to form evidence-based assumptions throughout this IA. During the Green Paper consultation period, the Department of Health aims to further develop the evidence base for the policy by consulting with relevant stakeholders and inviting recommendations for further evidence that may strengthen our analysis of impact.

The key topics on which we want to consult, and the existing evidence on which assumptions have been based, are:

Evidence on the proportion of CYP with diagnosable mental health disorders who would benefit from support from the Mental Health Support Teams.

Current evidence from discussion with academics and clinicians

Evidence on the proportion of CYP with pre-diagnosable mild to moderate mental health problems who would benefit from support from Mental Health Support Teams.

We currently have no robust evidence on levels of need for this group

Evidence on the impact on mental health and wider outcomes of interventions for CYP with mild to moderate mental health needs, as could be delivered by the Mental Health Support Teams

Current evidence drawn from a small set of interventions and Dartington's Social Research *Investing in Children* report

Evidence on the impact of CYPMHS therapeutic treatments

Published literature on the cost-effectiveness of treatments in CYPMHS

We welcome references to any evidence, published or in development, or expert opinion on the topics set out above to help refine this Impact Assessment. To respond to the consultation, you can complete the online consultation questions at www.engage.dh.gov.uk/youngmentalhealth

The questions will follow on from the main Green Paper consultation questions. The consultation is now live and will be open for 13 weeks, in accordance with Cabinet Office guidelines, and close at midday on 2 March 2018.

Annex

QALY benefit of NHS CYMPHS treatments for anxiety or depression

We have found studies on the effectiveness of treatments for depression and anxiety. The evidence for effectiveness of treatment of CYP with depression considers the effectiveness of talking therapies and SSRIs (a type of antidepressant), rather than the effectiveness of CYPMHS services overall.

The current NICE recommendation is for group therapy for mild depression, cognitive behavioural therapy (CBT) with the option of fluoxetine (a type of SSRI) for moderate to severe depression, and intensive psychological therapy combined with medication for depression unresponsive to treatment/recurrent depression/psychotic depression.⁸³

We have identified three relevant UK studies on therapeutic and SSRI treatments for depression and anxiety:

Goodyer et al (2016) assessed the cost effectiveness of cognitive behavioural therapy, short-term psychoanalytical psychotherapy (STPP), and a brief psychosocial intervention (BPI) in adolescents with unipolar major depressive disorder treated in CYPMHS.⁸⁴

The Adolescent Depression Antidepressant and Psychotherapy Trial (ADAPT) RCT in the UK reported quality of life (QoL) improvements for treatment with SSRIs as well as treatment with both SSRIs and CBT.⁸⁵

For anxiety we have identified a study by Creswell et al (2017) that reports a QoL benefit of brief guided parent-delivered CBT (GPD CPD) and solution-focused brief therapy (SFBT) for childhood anxiety disorders.⁸⁶

The estimated quality of life benefits from these studies are:

Quality of life benefit ⁸⁷	
Goodyer et al (depression) - BPI	0.22
Goodyer et al (depression) - CBT	0.20
Goodyer et al (depression) - STPP	0.24
ADAPT trial (depression) - SSRIs	0.28
ADAPT trial (depression) - CBT plus SSRIs	0.25
Creswell et al (anxiety) - GPD CBT	0.05
Creswell et al (anxiety) - SFBT	0.11

We have used the average improvement in QoL following treatment by the above studies as a proxy for the average quality adjusted life year (QALY) gain of a CYPMHS service for anxiety or depression⁸⁸. We believe there is high degree of uncertainty in doing so, for the following reasons:

- The studies do not include a ‘no treatment’ counterfactual, and assume that adolescents would have remained at the baseline QoL forever. They also assume the improvement in health is sustained over time. However, it is plausible that some adolescents would have improved (and some deteriorated) in the

⁸³ <https://www.nice.org.uk/guidance/cg28/chapter/1-Recommendations>

⁸⁴ Goodyer, et al. (2016). Cognitive behavioural therapy and short-term psychoanalytical psychotherapy versus a brief psychosocial intervention in adolescents with unipolar major depressive disorder (IMPACT): a multicentre, pragmatic, observer-blind, randomised controlled superiority trial. *The Lancet*. Available at: [http://www.thelancet.com/journals/lanpsy/article/PIIS2215-0366\(16\)30378-9/abstract](http://www.thelancet.com/journals/lanpsy/article/PIIS2215-0366(16)30378-9/abstract)

⁸⁵ Goodyer, et al. (2008). A randomised controlled trial of cognitive behaviour therapy in adolescents with major depression treated by selective serotonin reuptake inhibitors. The ADAPT trial. *Health Technology Assessment*, 12(14), iii-iv, ix-60. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/18462573>

⁸⁶ Creswell, et al. (2017). Clinical outcomes and cost-effectiveness of brief guided parent-delivered cognitive behavioural therapy and solution-focused brief therapy for treatment of childhood anxiety disorders: a randomised controlled trial. *Lancet Psychiatry*, 4(7), 529-539. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/28527657>

⁸⁷ Quality of life is measured on a scale of 0 to 1, where 0 is equivalent to death and 1 is perfect health.

absence of the intervention. We believe it is reasonable to assume that about half of children treated will either not see a long-term improvement or their improvement can't be attributed to the treatment⁸⁹.

- Studies have different follow up periods ranging from 26 weeks to 86 weeks.

We therefore multiply the improvements found by 50%. We estimate the average benefit of CYPMHS treatment for anxiety or depression as around a 0.1 (10%⁹⁰) increase in quality of life.

Wider societal benefits

Based on the methodology above, Dartington's Social Research Unit has therefore estimated the wider societal benefit of 1:1 sessions of CBT for depression or trauma, as well as individual multimodal therapy for children with disruptive behaviour. These benefits are per participant in each intervention. If we assume that the average CYPMHS treatment consists of 1:1 CBT, we can apply the wider societal benefits shown below.

	Depression (£)	Trauma (£)	Multimodal therapy (£)
NHS savings	5,900	9,000	400
Earnings	3,200	3,400	600

Break-even analysis for reduction in waiting time for CYPMHS

We have calculated the necessary minimum reduction in average waiting time required for the benefits of the waiting time pilots to outweigh their costs. We have only included one aspect of the benefits of this policy in this calculation, and thus our estimate of the number of weeks will be an over-estimate. The aspect of benefits we include is the increased amount of time spent with post-treatment quality of life.

We assume that the average increase in quality of life following treatment in CYPMHS is 0.1 as calculated above. Therefore, receiving treatment one year earlier would be equivalent to a gain of 0.1 QALYs. Monetising at £60,000 per QALY, this year would be valued at £6,000, while each week in this year would be valued at around £115.

Solely for the purpose of this analysis, we assume a linear rollout profile corresponding to 10% of patients experiencing a waiting time standard by 2020/21. We assume that the number of patients treated in CYPMHS rises by 10% p.a. from 2018/19 to 2021/22.

Given the costs of the waiting times pilots from 18/19-20/21, we conclude that a reduction in waiting time of at least 6 weeks per child treated in an area with the waiting time standard would result in a positive net present value. That is a reduction from current 12 week average wait to a 6 week average wait.

⁸⁸ We have used a linear extrapolation, based on the QoL and QALY gain of the Goodyer study, to estimate the QALY gain from the reported QoL gains in the other studies.

⁸⁹ Based on conversations with clinical experts: Professor Miranda Wolpert, Professor Stephen Pilling, Professor Tim Kendall, and Professor Peter Fonagy.

⁹⁰ 10% as compared to full health not baseline health of the individual. i.e. if 1 is full health, a 0.1 increase is moving from 50% health to 60% health