

Building the Business Case IAPT-LTC

The problem and opportunity

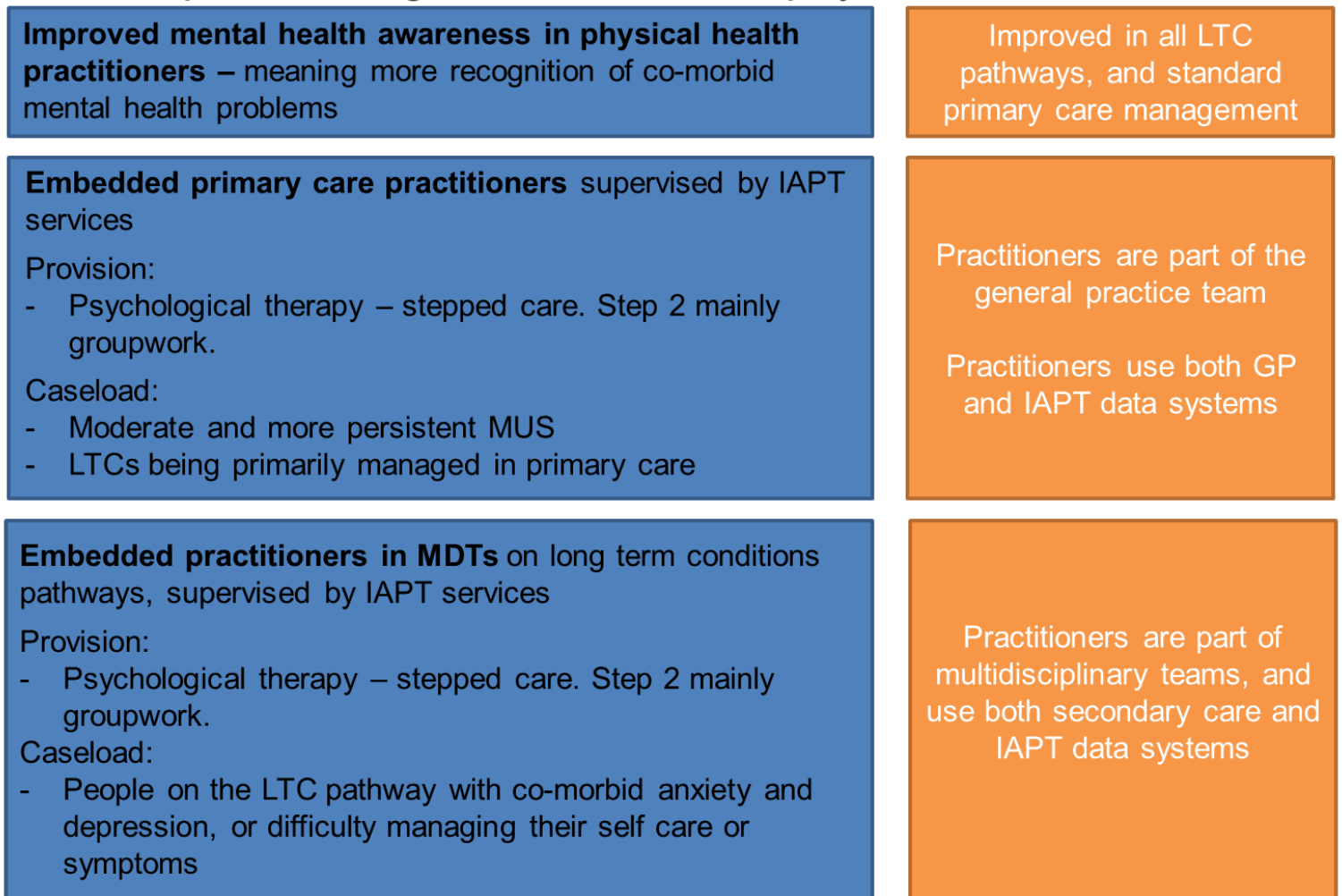
1. At least 15 million people in England have one or more long term conditions (LTCs) (DH 2010, from Parsonage paper), and 70% of the NHS budget is spent on their care. 30% of people with a LTC have a mental health problem and this equates to around 4.6m people.¹ Applying the general population ratio of anxiety/depression to other mental health problems suggests that there are 3.22m people living with anxiety/depression and a LTC.²
2. Where a mental health problem coexists with a physical health problem the potential for harm is greater. This increases their physical healthcare costs by 45-75% from international studies, after adjustment for the severity of the disease has taken place.³
3. For those people with more than one LTC prevalence rates for mental health problems are higher: one study found that the prevalence of mental health problems among people with three or more LTCs was 40-50%.⁴ The costs associated with mental health co-morbidity rise sharply in line with the number of long-term physical conditions from which a patient suffers.
4. The evidence of the effectiveness of interventions for people who have co-morbid mental and physical health conditions is clear. Tailored interventions reduce physical health costs, reduce sickness and absence and improve functioning and self-care. The IAPT pathfinder programme, which predated the IAPT-LTC Early Implementer programme, has built this evidence base: showing that services tailored to LTCs get better outcomes for this cohort of people, and that recovery rates can be as high as the best generic IAPT services.⁵
5. The overall cost of the estimated 4.6m people experiencing medically unexplained symptoms (MUS) to the NHS in England is approximately £3.25 billion a year in today's prices. This is equivalent to a cost of around £700 per head among all individuals identified with MUS including those with sub-threshold problems, rising to about £3,500 a year among the most costly 5%.⁶
6. Of these people, 5% will require a high intensity specialist intervention and 95% will be managed in primary care⁷, many of whom will benefit from a form psychological therapy.

Proposal- IAPT-LTC

7. The purpose of the IAPT-LTC programme to significantly increase the capacity of the NHS to provide psychological therapy for people with co-morbid LTCs and MUS in the context of a co-existing mental health problem. The expansion will benefit people who use IAPT services, contribute to reducing demand for overstretched healthcare services, and also the exchequer and wider society.
8. Previous attempts to integrate mental and physical healthcare have not always been successful IAPT services that are integrated in to physical health care have been shown to work best when teams are truly integrated and joint, rather than trying to link up disparate services.

9. The Royal Colleges have produced a [consensus statement](#) setting out the key characteristics for psychological therapy for people with long term conditions and/or medically unexplained symptoms. The care described in the consensus statement and proposed here is flexible to model of care and configuration of services locally.
10. The IAPT-LTC expansion in 2016/17 and 2017/18 aims to implement IAPT services integrated with physical healthcare pathways at scale. The national evaluation has a defined scope and will report the impact of all 23 Wave 1 Early Implementers on acute healthcare utilisation. Results of the evaluation will be available in March 2018.

Figure: Model for psychological support for people with LTCs, as part of integrated mental and physical healthcare



What is the cost of the service?

11. Costs from the IAPT pathfinder sites varied – and the sizes of the services were small, meaning economies of scale were not realised.
12. One site identified costs of £770-£1200 in their case studies – which ranged from talking therapies to more intensive psychosocial interventions.⁸ The cost of intervention is likely to reduce when services are implemented at scale: this happened in the generic adult IAPT expansion – with services becoming more efficient and unit costs reducing.
13. Experts expect the severity of cases in the cohort of people with LTCs and co-morbid anxiety & depression to be higher than that of the general population. The ‘generic’ IAPT services were designed expecting low intensity intervention to be suitable for 2/3 of patients, and in LTC-specific interventions experts have suggested this figure might be nearer 1/3.⁹
14. Generic IAPT costs on average around £492 per person entering treatment – actual costs cover a wide range, and there may be scope for process improvements beyond those already planned to improve recovery rates. There is also scope to improve efficiency through different ways of delivering therapy – both in generic and LTC/MUS IAPT. For instance, there are examples of IAPT pathfinders using telephone groups and internet-based platforms for delivering interventions, which increase the cost effectiveness of interventions.
15. We have used the generic cost estimates for the expansion of IAPT into physical healthcare services: based on the judgement that increasing efficiencies in the services will be balanced by an increased complexity of case.
16. In addition, expanding capacity for psychological therapy will mean training more therapists (as a one off cost). The main cost will be in producing new therapists.¹⁰ The extra knowledge needed to work effectively with people with long term conditions will be delivered through an additional 2 week training course.
17. **In summary**, there are three costs to be taken into account: the cost of delivering the service, the cost of training extra staff, and additionally a small cost of central support to develop service standards and support areas to deliver the most effective and efficient services possible.

What will the benefits be?

Healthcare benefits

18. The IAPT pathfinders (covering a range of long term conditions) achieved recovery rates on a par with those achieved in IAPT services for patients without co-morbid long term conditions. Early Implementers are achieving similar results. The pathfinder sites achieved improvements in patient’s physical health – with decreases in severity in disease-specific measures for diabetes, COPD and Medically Unexplained Symptoms.
19. There is a range of evidence of reduced healthcare utilisation after psychological therapy. The majority (both studies and evidence from the IAPT pathfinders) measures

secondary care utilisation only. The interventions measured in the studies vary, as do the follow up periods and benefits (plus the way these are reported and measured).

20. Gross savings in British studies vary between £300 and £2600 a year for those who recover (for more detail on the evidence see Table 1 in the Annex). In calculating benefits we have taken a mid-range figure of £1000 saving per year, covering both primary and secondary care.
21. There is limited long term evidence on the duration of benefits from IAPT services (see Table 2 in the Annex for more detail). However, information from trials suggests the benefits of treatment for people with anxiety disorders are long term. For people with depression there is a greater risk of relapse/recurrence – with 50% of people remaining depression free for the two years following treatment. What evidence there is for people with chronic fatigue syndrome (an example of a ‘medically unexplained’ condition) also suggests many people experience long term benefits? Taking a (conservative) weighted average across anxiety and depression gives benefits lasting 26 months for those recovering.

Wider benefits

22. There is little specific evidence on the benefits of psychological therapy for people with LTCs or MUS on benefits and tax. The cohort of people with LTCs is older than the general population, however people with LTCs are more likely to be receiving benefits – and so there is a greater potential saving if they are able to work. Therefore we have used the savings per person treated from the IAPT 2011 business case:
 - Savings per person recovered (moderate/severe) = £12,935 x 2 x (48% - 18%) x 11.4% = £885
 - Savings per person recovered (mild) = £12,935 x 2 x (48% - 18%) x 4.3% = £334
 - Average savings per person treated = £885*1/3 + £334*2/3 = £629
23. Studies¹¹ have documented reductions in sickness absence for people with LTCs or MUS, this varies according to condition. The generic IAPT business case includes reductions in sickness absence of between 5.4 and 11.4 days annually for people in employment. This is likely to be an underestimate for those in employment using the IAPT-LTC service.

Health benefits

24. People being treated in IAPT-LTC services will experience benefits to both their physical and mental health. The physical health benefits are not easily quantified from existing data, and so have not been included in this case. The QALY figure for mental health benefits is 0.07 (a monetised value of £4200 a year), taking into account people’s lower general health status than the generic IAPT cohort.¹²

Annex: Supporting information

Diabetes	<p>Secondary care cost reduction of:^{xiii}</p> <ul style="list-style-type: none"> ○ £372 a year in the Berkshire West IAPT pathfinder (net cost reduction) ○ £700-1000 for high intensity multidisciplinary treatment (in this case focused on people with severe diabetes) – examples from King’s College Hospital and Hillingdon. <p>Primary care cost reductions unquantified in these examples.</p>
COPD	<p>Hillingdon COPD example: a psychological component in a breathlessness clinic:</p> <ul style="list-style-type: none"> ○ Gross saving of £837 per person over 6 months in secondary care costs (A&E presentations and fewer bed days when admitted),^{xiv} and £1,300 in overall healthcare costs over 6 months.^{xv}
Angina	<ul style="list-style-type: none"> • A brief intervention reduced both admissions by 33% and length of stay in patients with angina the following year, with savings of £1,337 per person in 2007^{xvi} - calculated by NHS Confed as £2000 in 2010/11 prices.
Cardiac: implantation of a defibrillator	<ul style="list-style-type: none"> • A British study^{xvii} found a 50% reduction in unplanned admissions in patients having received a home-based cognitive behavioural rehabilitation programme (11% of the intervention group compared to 22% of patients experiencing usual care).
Cancer	<ul style="list-style-type: none"> • Breast cancer^{xviii}: A Canadian RCT found non-oncology healthcare costs were 23.5% lower over a 2 year period in the group given CBT – an average of \$147 less in 1994-1998 prices. • A range of studies have found collaborative care to be more cost effective than other cancer treatments (e.g. Sharpe et al)
Musculoskeletal disorders	<ul style="list-style-type: none"> • A Spanish study^{xix} found net direct healthcare savings of \$251 dollars (2007 prices) for those in a rheumatology programme with relatively high rates of sickness absence treated with CBT. They also found a reduction in the episode length of MSD-related temporary work disability: mean 98 versus 127 days, and relapse episodes were significantly shorter in the intervention group: mean 63 days versus 197 days (follow up period 6-24 months after intervention). • Another Spanish study covering those with lower back pain found patients were absent from work 5.4 days less than the non-intervention group over 6 months.^{xx}
Rheumatoid Arthritis	<ul style="list-style-type: none"> • A 2008 small RCT^{xxi} in London found reductions in healthcare costs over the five years after a CBT intervention early in the course of rheumatoid arthritis found secondary care savings of \$1,701.42 per patient (2008 prices – £1295 in 2014 from Bank of England calculator, meaning £323 a year)

Somatoform disorders (or MUS)	<ul style="list-style-type: none"> • A German 2003 study^{xxii} found a reduction of EUR382 (24.5%) and EUR1098 (36.7%) for outpatient and inpatient care respectively for a cohort of people accessing CBT. Also found a reduction in days off sick 26.5% reduction. • In primary care, providing psychological therapies for those with medically unexplained symptoms produced a reduction in GP visits of 50%^{xxiii}. • An evaluation of the Hackney psychotherapy consultation service,^{xxiv} which comprises of psychiatric liaison, social care support and psychological therapy for people with MUS, personality disorder, or a chronic mental health problem not being managed in primary care found a reduction in NHS service use of over £460 per patient at the end of a 12-month follow-up – around a third of the cost of intervention (this service covered a more complex cohort of patients than being proposed here). • LSE modelling for DH in 2011^{xxv} found a similar magnitude of intervention to healthcare benefit ratio: three years to recoup intervention costs (although the costs they used for CBT were somewhat higher than the IAPT stepped care model). They also found a reduction in sickness absence associated with the intervention.
Chronic fatigue syndrome	<ul style="list-style-type: none"> • A RCT in the Netherlands^{xxvi} found a cohort of patients' mean healthcare costs to be EUR88 lower (including the cost of intervention) in months 0-8, and EUR146 lower in months 9-14. They also found a reduction in time off work for those treated with CBT. • Another study found CBT to be more cost-effective than usual care, and produced gross healthcare savings of £300 over 12 months^{xxvii}.
Generic IAPT	<ul style="list-style-type: none"> • One general practice analysed all patients referred to IAPT and looked at change in healthcare utilisation: they found a reduction of £1,050 (for those who recovered?) per year over a two year period.^{xxviii} • Comparison of service utilisation 6 months before and after referral to IAPT was associated with reduced use of emergency department attendances (mean difference: 0.12 (95% CI 0.06 to 0.19, p<0.001)). They also found a reduction in sickness certification^{xxix}
Meta-analysis of psychological interventions in people with LTCs	<ul style="list-style-type: none"> • A review of 91 studies^{xxx} of psychological intervention for those with co-morbid physical and mental health problems showed a mean reduction of healthcare costs of 20%, with over 90% of studies showing a cost saving.
Assumptions used in calculations	<ul style="list-style-type: none"> • The vast majority of available evidence (both studies and evidence from the IAPT pathfinders) measures secondary care utilisation only. • The interventions measured in the studies vary, as do the

	<p>follow up periods and benefits (plus the way these are reported and measured).</p> <ul style="list-style-type: none"> • Gross savings in British studies vary between £300 and £2600 a year. • Take a middle figure of around £1000 saving per year, covering both primary and secondary care costs
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Table 2: How long should we assume the benefits of therapy last for?	
Anxiety disorders	<p>1-9 year follow up studies find that on average people with anxiety disorders are as well on follow up as they are when completing treatment, around 20% of people will also have had some booster treatment.^{xxxii}</p> <p>In addition, some studies show further improvement in social anxiety disorder post follow up.^{xxxii}</p>
Depression	<p>Psychological therapies halve the risk of a future episode of depression compared with anti-depressant treatment^{xxxiii}</p> <p>Over 50% of people are still depression free 24 months after treatment after CBT, however in the two years after successful treatment about 40% of people who initially had moderate-severe depression will experience a depressive episode of at least a month.^{xxxiv}</p> <p>Clinical advice: Assume 1/3 of people who recover successfully will need some form of booster treatment.</p>
Chronic fatigue	<p>One study found looks at 5 year follow up for people with chronic fatigue syndrome after CBT: 24% were completely recovered, 71% rated themselves as much better.^{xxxv}</p>
Assumption used in calculations	<p>Depression ~ 50% of case mix. 50% see full benefit for 2 years. For others assume benefit on average lasts for 12 months over 2 years (based on X, Y, Z).</p> <p>Anxiety ~ 50% of case mix – conservatively assume 90% retain benefits for 3 years.</p> <p>Benefits to last for $(0.5*36 + 0.25*24 + 0.25*12) = 26.5$ months</p>

Table 3: What proportion of people benefit from treatment?	
Recovery	<ul style="list-style-type: none"> • Recovery rates are measured for all those that complete treatment (i.e. have at least two treatment sessions). • The national average recovery rate is 45%, although some CCGs achieve recovery rates of over 60%. Work in 2015 is ongoing to bring all CCGs to at least a 50% recovery rate, and in the future higher rates may be possible through an intensive focus on quality.
Completing treatment	<ul style="list-style-type: none"> • A simple ratio of those entering and completing treatment in a quarter in generic IAPT services gives a figure of 50-60%. • High quality services will be accessible and welcoming and so achieve a greater retention of people using their services. • LTC services will be co-located with physical healthcare, or delivered at home, meaning we can expect a lower dropout rate. They are also an older cohort, who generally benefit more from IAPT services and are more likely to complete treatment. • Therefore for LTC/MUS services assume 60% of people who enter treatment complete
Assumption used in calculations	Using a recovery rate of 50% and a 'conversion' rate of 60% of people starting treatment completing, gives 30% (0.5×0.6) of people entering treatment recover.

References

- ¹Naylor et al, Long Term Conditions and mental health: the cost of co-morbidities, 2012, King's Fund
- ²In lieu of better information on the prevalence of anxiety/depression specifically in people with Long Term Conditions take 70% (the prevalence of anxiety/depression in mental health problems in the general population) and apply it to the figure for people with LTC and co-morbid mental health problem
- ³Naylor et al, Long Term Conditions and mental health: the cost of co-morbidities, 2012, King's Fund
- ⁴Mercer, S. and Watt, G. (2007) The inverse care law: clinical primary care encounters in deprived and affluent areas of Scotland. *Annals of Family Medicine*, 5(6), 503-510.
- ⁵Phase 2 IAPT LTC/MUS evaluation report, 2013
- ⁶Report to NHS England Taskforce, Parsonage, 2015
- ⁷Report to NHS England Taskforce, Parsonage, 2015
- ⁸BCG diabetes slide pack
- ⁹from March LTC MUS meeting: Self-management, support and low intensity interventions (step 2) – 30%; High Intensity interventions (step 3) – 60%; Highly specialised (step 4) – 10%
- ¹⁰100,000 new patients in IAPT require an additional new 550 HITs (cost £10,000 each) & 375 PWPps (cost £5,000 each)
- ¹¹Some references included in Table 1, Annex
- ¹²QALY figures / assumptions set out in detail in the 2011 IAPT Impact Assessment
- ^{xii}Numbers from BCG case studies
- ^{xiv}Howard et al, 2010 The effectiveness of a group cognitive-behavioural breathlessness intervention on health status, mood and hospital admissions in elderly patients with chronic obstructive pulmonary disease
- ^{xv}Ref Thrive p 184
- ^{xvi}Moore et al, 2007: A brief cognitive-behavioural intervention reduces admission in refractory angina patients
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- ^{xxiii}IAPT PBC business case, 2012
- ^{xxiv}Parsonage, M., Hard, E. and Rock, B. (2014) *Management of patients with complex needs: evaluation of the City and Hackney Primary Care Psychotherapy Consultation Service*. London: Centre for Mental Health.
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- ^{xxvi}Severens, J. L., Prins, J. B., van der Wilt, G. J., van der Meer, J. W. M., and Bleijenbergh, G. (2004). Cost-effectiveness of cognitive behaviour therapy for patients with chronic fatigue syndrome. *QJM - Monthly Journal of the Association of Physicians* 97[3], 153-161.
- ^{xxvii}Adaptive Pacing, Cognitive Behaviour Therapy, Graded Exercise, and Specialist Medical Care for Chronic Fatigue Syndrome: A Cost-Effectiveness Analysis. McCrone et al, PLOS, 2012
- ^{xxviii}Thrive, English version
- ^{xxix}Referral to a new psychological therapy service is associated with reduced utilisation of healthcare and sickness absence by people with common mental health problems: a before and after comparison. Simon de Lusignan, Tom Chan, Glenys Parry, Kim Dent-Brown, Tony Kendrick *J*

^{xxx} Chiles, J.A., Lambert, M.J. and Hatch, A.L. (1999), "The impact of psychological interventions on medical cost offset: A meta-analytic review", *Clinical Psychology: Science and Practice*, 6(2): 204-220.

^{xxxi} Thrive, American version.

^{xxxi} Thrive, American version.

^{xxxi} Thrive, English version

^{xxxi} Thrive p 122

^{xxxi} Deale, Hussain, Chalder & Wessely, Long-term outcome of cognitive behavior therapy versus relaxation therapy for chronic fatigue syndrome: a 5-year follow-up study. *Am J Psychiatry* 2001.