PUBLIC

A Health Equity Audit of the Improving Access to Psychological Therapy (IAPT) services in Derbyshire

Author:

Iain Little, Public Health Specialty Registrar, Derbyshire County Council

Analysis and Public Health support:

Zara Hammond, Public Health Specialty Registrar, Derbyshire County Council

Sharon May, Principal Public Health Analyst, Derbyshire County Council

Theingi Thant, Principal Information Analyst, Greater East Midlands Commissioning Support Unit

Additional thanks to Tracy McGonagle, Hardwick CCG and Richard Mullings, Derby City Council

February 2015

CONTENTS

1 Introduction

Psychological therapies are effective, evidence-based interventions for a range of common mental health problems.[i] The principle of equity is that individuals should have access to a service based on need rather than demand.[ii]

The aim of this Health Equity Audit (HEA) is to determine the equity of access to, and outcome from, the Improving Access to Psychological Therapies (IAPT) services in Derbyshire. The results of the HEA will be shared with commissioners of the IAPT service to inform re-procurement of the service.

The objectives of the HEA are to:

- undertake equity profiling of the IAPT services by age, gender, ethnicity, geography, disability, presence of a long term-condition, sexual orientation and employment status
- identify factors associated with successful recovery
- review the current tariff structure in relation to the disease severity profile of service-users
- undertake a literature review to identify effective interventions that increase access to or outcomes from talking therapies for those population groups demonstrated to have inequities in current service provision in Derbyshire

1.1 Scope of the audit

Information on all individuals who were referred to the IAPT services across Derbyshire, including Derby City and Glossop, between 1 April 2013 and 31 March 2014 were included within the analysis. The data is limited to adults only, and therefore this report does not consideration equity amongst young people. The analysis concentrates on an analysis of equity, and does not review performance against national key performance indicators. It also reviews equity as a whole across Derbyshire, and does not compare equity between individual providers.

Throughout the report, Derbyshire CCGs represents Erewash, Hardwick, North Derbyshire and Southern Derbyshire CCGs, but excludes Tameside and Glossop CCG.

2 Background

2.1 Common mental health problems

Common mental health problems are conditions that cause a degree of emotional distress and interfere with daily function. They can also result in physical impairment, although they do not usually affect insight or cognition.[iii] At any one time, it is estimated that 1 in 6 of the adult population in England will be experiencing symptoms suggestive of common mental health problems.[iii] If left untreated, individuals with common mental health problems are more likely to experience long term disability and premature mortality.[iv] Therefore reducing the prevalence of these conditions is a major public health challenge.

Common mental health problems comprise a range of conditions that often co-exist, including:

- Depressive episodes
- Generalised anxiety disorders
- Panic disorders
- Phobias, and
- Obsessive compulsive disorders

Common mental health problems can be transient conditions. A proportion of individuals who experience them will achieve resolution without requiring treatment. For individuals with shorter-term duration (less than 6 months), it is estimated that 50-70% of individuals will recover within a few months, without the need for psychological therapy, but for individuals with longer-term duration of illness, the average self-recovery rate is considerably lower at between 5 and 20%.[v] Of those that do require treatment, the majority will require psychological and/or pharmacological support in primary care, rather than treatment by specialist mental health services.

2.2 Psychological therapies

Psychological therapies encompass a broad range of interventions that follow different theoretical models and different forms of treatment, examples include cognitive behavioural therapy (CBT), interpersonal therapy (IPT) counselling and guided self-help.[vi] The services are commonly referred to as talking therapies and can be administered on an individual or group level.

IAPT services were established in England in 2006, with subsequent roll-out across the whole country. The vision for the IAPT programme is

> *"to raise the standards of the recognition of, and treatment for, the mass of people who suffer from depression and anxiety……to give greater access to, and choice of, talking therapies to those who would benefit from them"*

NICE advocates a stepped-care approach for the treatment of common mental health problems, depending on the condition and severity of illness (table 1).[i]

Table 1: NICE recommended non-pharmacological therapies

Condition	Severity	
	Mild/moderate	**Mild/moderate with inadequate initial response; or moderate/severe**
Depression	• facilitated self-help computerised cognitive behavioural therapy (CBT) • structured group physical activity session	• psychological intervention (CBT, interpersonal therapy (IPT), behavioural activation or couples therapy)
Generalised anxiety disorder	• individual non-facilitated or facilitated self-help • psycho-educational groups	• CBT • applied relaxation
Panic disorder	• individual non-facilitated or facilitated self-help	• CBT
Obsessive Compulsive Disorder	• CBT including exposure and response prevention, either individual or group	• CBT including exposure and response prevention

2.2.1 IAPT services in Derbyshire

In April 2013, a total of five providers were commissioned to deliver IAPT services across Derbyshire following an Any Qualified Provider procurement process. These services operate across the geographic area covered by Southern Derbyshire, Erewash, Hardwick and North Derbyshire CCGs. A separate service is commissioned by Tameside and Glossop CCG for the Glossop locality, with a single provider in place.

All providers operate a stepped care model, providing low-intensity (step 2) and high-intensity (step 3) interventions. A stepped-care model allows service-users and therapists to choose the most effective intervention to meet their need. The more intensive treatment required within step 3 is reflected in the existing tariff for Derbyshire CCGs (table 2). The current IAPT tariff for Tameside and Glossop CCG is not provided here.

Table 2: IAPT tariff for Derbyshire providers, excepting provider in Glossop locality

	Payment (£)	Notes
Assessment	44	Applicable for patients who have a formal assessment only and are deemed not appropriate for referral into treatment or who don't complete the definition of step 2 or 3 treatment tariff
Step 2 treatment	125	Applicable for patients who receive an assessment plus a minimum of 1 separate treatment only appointment
Step 2 recovery	42	Applicable for patients who meet the national definition of recovery and is payable in addition to the Step 2 treatment price
Step 3 treatment	500	Applicable for patients who receive assessment plus a minimum of 2 separate treatment only appointments
Step 3 recovery	150	Applicable for patients who meet the national definition of recovery and is payable in addition to the Step 3 treatment price
Step 3 clinical improvement	75	Applicable for patients who don't meet the definition of recovery, but who demonstrate a minimum of a 5 point improvement on the GAD7 or PHQ9 scale, and is payable in addition to the Step 3 treatment price

2.3 Equity of provision of IAPT services

There has been no previous analysis of the equity of the Derbyshire IAPT services. However, published studies have shown variation in access and outcomes between population groups.

A review of the provision by the first-wave IAPT sites (a total of 32 services, with 79,310 individuals receiving an initial assessment) highlighted that the majority of service users were working age adults, and older people were under-represented. Twice as many women as men accessed the services, but this reflects the greater need amongst women. White British individuals were over-represented, and individuals from Minority White, Asian, Black and Other ethnic groups were under-represented. Poor reporting of some characteristics, for example disability status, did not allow assessment of equity for all characteristics.[vii]

An analysis of IAPT services commissioned by six Primary Care Trusts (PCT) in the East of England (n=16,236) found that older adults were under-represented in the service population. However, older adults had significantly shorter waiting times for assessment and treatment, and were less likely to drop out compared to working age adults. Older adults were more likely to self-refer to services, and were less likely to be referred by GPs, possibly due to GPs being less attuned to identify mental health needs in older adults. Older adults also had higher recovery rates, after adjusting for gender, PCT, severity at baseline, step of treatment received and number of sessions.[viii]

A study of patients from the two IAPT demonstration sites (n=363) reported that clinical factors (including suicidal thoughts, severity of condition and illness duration) were more predictive of IAPT

non-attendance than socio-demographic characteristics such as age, gender and ethnicity. However, the authors reported that the small sample size, low response rate to their survey and limited power of the model used limit the generalizability of the results.[ix]

A comparison of IAPT service users (n=4,781) with respondents to a community survey with common mental health problems in the same geographic area (n=196) identified differences in access rates against a number of equity criteria. Older adults (65 years and older) and those aged 55-64 years were significantly under-represented in the IAPT population, with adults aged 25-44 over-represented. Individuals from White ethnic groups were significantly over-represented, and individuals from Black-African were significantly under-represented in IAPT population. A number of other ethnic groups also appeared to be under-represented in IAPT services (including Black Caribbean, Indian and Pakistani), although due to a small sample size, the differences did not reach statistical significance. Finally, the authors reported that unemployed individuals were over-represented in IAPT population, with students and retired individuals under-represented. There was no significant difference in access by gender.[x]

3 Methodology

3.1 Health Equity Audits

Health Equity Audits *"identify how fairly services or other resources are distributed in relation to the health needs of different groups and areas. The overall aim is not to distribute resources equally but, rather, relative to health need".*[ii]

There are 6 stages within a health equity audit, and these stages should be viewed cyclically:[xi]

1. Agree partners and issues
2. Undertake an equity profile to identify inequalities
3. Agree high impact local actions to narrow the inequalities identified
4. Agree priorities for action
5. Secure changes in investment and service delivery
6. Conduct ongoing review of progress to assess impact

This report focuses on stages 2 and 3 of the process. The equity profiling and recommendations will be discussed with commissioners to inform the later stages of the cycle.

3.2 Data collection

IAPT service providers are required to collect a minimum data set for all individuals that access the service that includes demographic, referral, appointment, treatment and outcome information.[xii] Data from providers is collated by the Greater East Midlands Commissioning Support Unit on behalf of Southern Derbyshire, Erewash, Hardwick and North Derbyshire CCGs, and by the North West Commissioning Support Unit for Tameside and Glossop CCG.

Data was extracted by the CSUs for all individuals who had been referred to the IAPT services between 1 April 2013 and 31 March 2014, and had completed their treatment at the date of data extraction. This included data for those individuals who were referred between these time points, but accessed services after 31 March 2014. An anonymised dataset was forwarded to the Public Health Analyst team at Derbyshire County Council for analysis.

An additional dataset, that only included individuals who meet a definition for payment within the tariff, was used to analyse the factors associated with recovery.

3.3 Measures of equity

To compare access to services between population groups, an equity of access score was calculated, as shown below. The number of adults with a common mental health problem in a population groups was estimated by applying known age- and gender-specific prevalence rates of common mental health problems to that population. As a proportion of individuals will have a common mental health problem that is transient in nature, and not require treatment, the equity of access scores are calculated primarily to allow comparisons in access to services between population groups, and not as a measure of the success of the IAPT services in treating all those that have a common mental health problem.

$$\text{Equity of access score} = \frac{\text{Number accessing IAPT services in a population group}}{\text{Estimated number of adults within that population group with a common mental health problem}} \times 100$$

To compare outcomes after treatment between population groups, an equity of outcome score was calculated, as shown below. The definition of recovery is provided in the next section.

$$\text{Equity of outcome score} = \frac{\text{Number achieving recovery in a population group}}{\text{Number who completed treatment within population group, having attended at least 2 appointments}} \times 100$$

3.4 Definition of recovery

Recovery is defined as individuals who at their first appointment score 8 or more on the GAD7[1] scale, or 10 or more on the PHQ9[2] scale, and at their last appointment score 7 or less on the GAD7 scale AND 9 or less on the PHQ9 scale.[xiii]

Concerns have been raised that this measure, although adopted by all IAPT service providers and commissioners in England, will include individuals with borderline illness who only show a small improvement in scores, and exclude individuals with more severe illness who show significant improvement, but do not move across the threshold scores. As tariffs may be weighted towards recovery, this may incentivise providers to "cherry-pick" less severe cases for treatment.[xiii] Two complimentary measures have therefore been developed to allow for a better understanding of the benefit people get from treatment:

- Reliable improvement: individuals whose improvement in scores exceeds the measurement errors of the questionnaires (an improvement of 6 or more on PHQ9 questionnaire and an improvement of 4 or more on GAD7 questionnaire). Within the tariff for Derbyshire CCGs, a clinical improvement measure of an improvement of 5 or more receives a partial recovery payment if the individual does not meet the definition of recovery.
- Reliable recovery: individuals whose improvement in scores exceeds the measurement errors of the questionnaires as above, and where the post-treatment score is below the clinical cut-off for the PHQ9 and GAD7 questionnaires.

Within the equity profiling of this HEA, the national definition of recovery has been used.

[1] The Generalised Anxiety Disorder Assessment (GAD7) is a self-reported questionnaire used for the screening for, and measurement of severity of, generalised anxiety disorder.
[2] The Patient Health Questionnaire (PHQ9) is a self-reported questionnaire that is used to assess the severity of depression

4 Results

4.1 Prevalence of common mental health problems

The need for a particular intervention can be defined as the number of individuals within a population who would benefit from receiving that intervention. For this health equity audit the overall need is the number of adults within Derbyshire with a common mental health problem.

In order to estimate the number of individuals within Derbyshire that have a common mental health problem, estimates provided by the North East Public Health Observatory (NEPHO) were used. In their modelling, NEPHO adjusted for differing needs between areas by adjusting for factors that are known to be key in determining the prevalence of common mental health problems.[xiv] The NEPHO model provides estimated prevalence by gender and 5-year age band and these have been applied to the Derbyshire population.[3] The NEPHO estimates exclude individuals aged 75 or over, and therefore rates of common mental health problems for this age group as reported in the 2007 Adult Psychiatric Morbidity Survey have been applied to the Derbyshire population.[iii] Local authority estimates provided by NEPHO using the same methodology have been applied to the populations of the districts within Derbyshire.

There are an estimated 113,396 adults with common mental health problems registered at GP practices across Derbyshire (table 3). The estimated rates were highest amongst Southern Derbyshire CCG, primarily due to the higher estimated rate amongst practices in Derby City (153.0 adults per 1,000 population) compared to the remainder of the practices in the CCG (121.8 adults per 1,000 population). Differences in the estimated rates between Erewash, Hardwick and North Derbyshire CCGs are due to differences in the population structure of the CCG rather than the modelled rate of common mental health problems.

Table 3: Estimated number and rate of common mental health problems in the adult population of Derbyshire, by Clinical Commissioning Group

Clinical Commissioning Group	Estimated number of individuals with common mental health problems	Estimated rate (per 1,000 adult population)
Southern Derbyshire	60,733	137.8
Tameside and Glossop (Glossop practices only)	3,287	126.9
Erewash	9,816	122.0
Hardwick	10,247	121.0
North Derbyshire	29,313	120.7

[3] The modelling is available on a PCT and local authority basis. Due to changes in the NHS commissioning landscape, the modelled estimates for Derbyshire County PCT were applied to North Derbyshire, Hardwick and Erewash CCGs, and the modelled estimates for Derbyshire County PCT and Derby City PCT were applied to Southern Derbyshire CCG. The modelled estimates for High Peak were applied to the Glossop practices in Tameside and Glossop CCG.

There are an estimated 109,306 adults with common mental health problems resident within Derbyshire. This estimated number with common mental health problems is lower than the estimate for those registered with a GP practice as there are a number of individuals resident outside of Derbyshire but registered with a GP practice within Derbyshire's CCGs. These individuals will be included within the CCG population, but not the resident population.

As the estimated district rates are based on modelled estimates at a local authority level, they provide a better illustration of the likely variation in rates of common mental health problems across Derbyshire than the CCG estimated rates. The estimated rates of common mental health problems at a district rate ranged from 106.1 adults per 1,000 population in Derbyshire Dales to 158.8 adults per 1,000 population in Derby City (table 4).

Table 4: Estimated number and rate of common mental health problems in the adult population of Derbyshire, by local authority

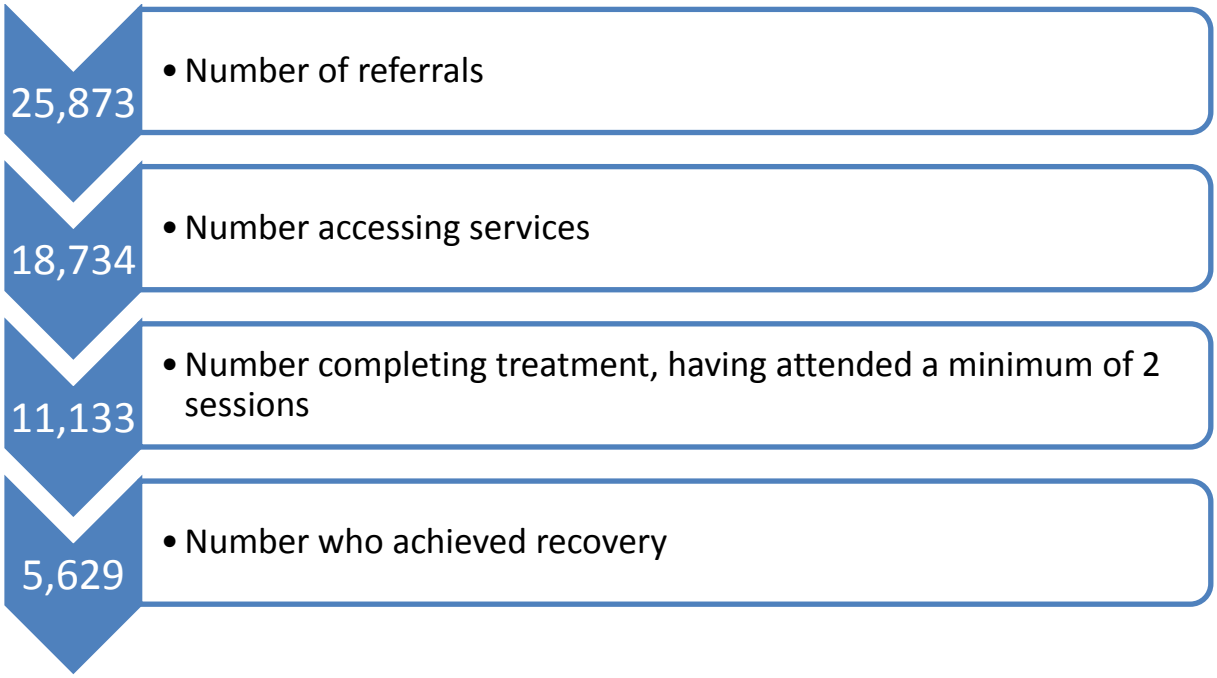
District	Estimated number of individuals with common mental health problems	Estimated rate (per 1,000 adult population)
Derby City	30,710	158.8
Chesterfield	12,813	156.3
Erewash	13,144	147.3
High Peak	9,389	129.8
Bolsover	7,577	123.6
Amber Valley	11,713	117.9
North East Derbyshire	9,230	114.4
South Derbyshire	8,552	111.1
Derbyshire Dales	6,178	106.1

4.2 IAPT service users

During the period April 1 2013 to March 31 2014, 25,873 individuals registered with a GP practice in Derbyshire were referred to IAPT services. Figure 1 shows the flow of individuals through the services, from referral to recovery.

At each stage in the pathway, a significant proportion of service users drop out. There were 7,139 individuals referred to IAPT services who did not receive a formal assessment (27.6% of all referrals). Of those that did access services, 7,601 did not complete treatment (40.6% of all that received an initial assessment). Finally, 5,504 of those who completed treatment did not meet the definition of recovery (49.4% of all that completed treatment). Reasons for non-attendance or non-completion have not been reviewed as part of this HEA.

Figure 1: Flowchart of individuals through the IAPT services



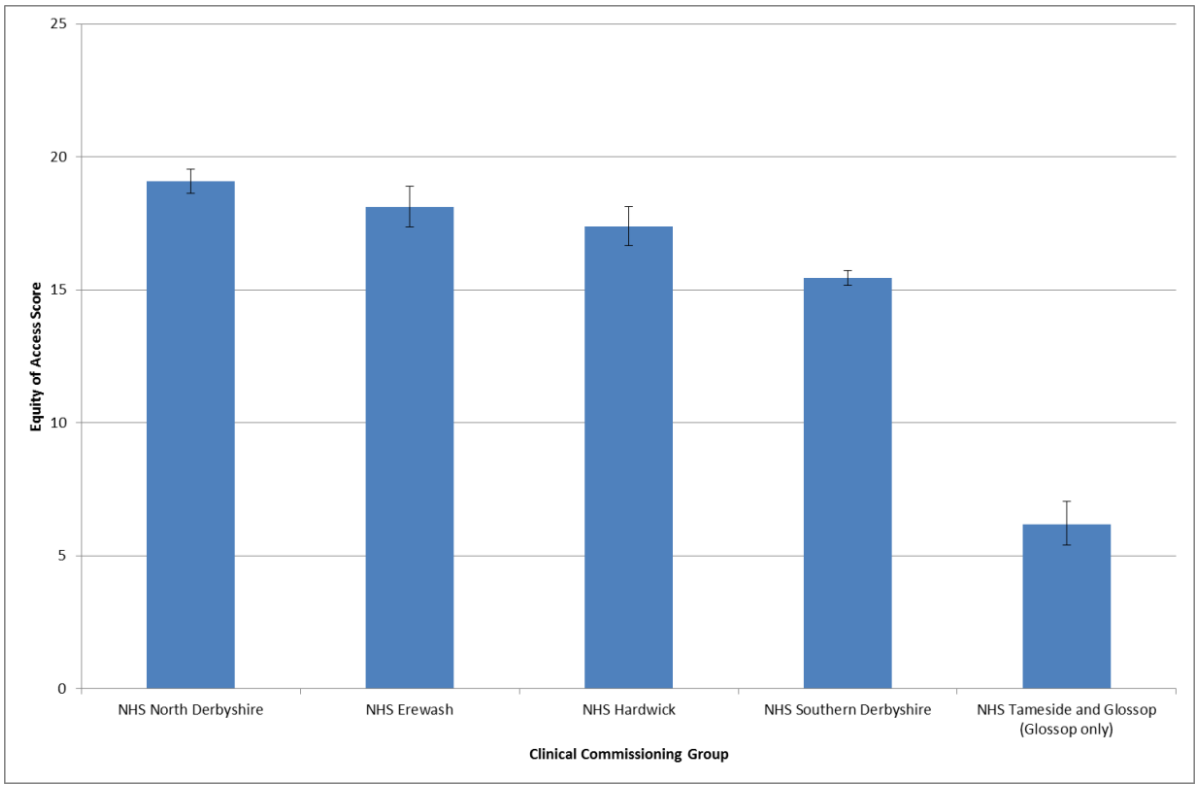
4.3 Equity analysis

4.3.1 Equity by Clinical Commissioning Group

Equity of access

A total of 18,734 individuals accessed IAPT services in 2013/14. Equity of access scores varied significantly between the CCGs in Derbyshire (figure 2). North Derbyshire CCG had the highest equity of access score, and Southern Derbyshire CCG had a significantly lower equity of access score than all other Derbyshire CCGs. The equity of access score for the Glossop practices in Tameside and Glossop CCG was significantly lower than the other CCGs.

Figure 2: Equity of access scores in Derbyshire, by Clinical Commissioning Group

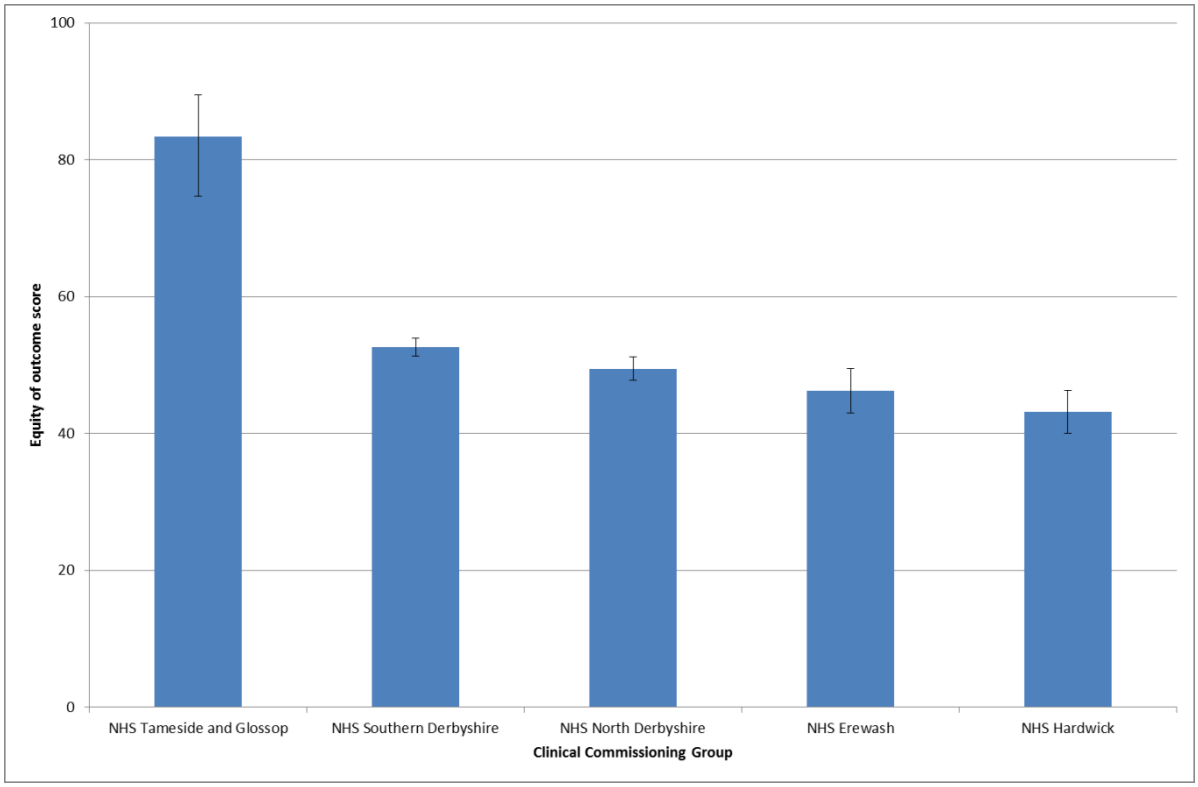


Equity of outcome

Overall, 50.6% of all individuals who completed treatment achieved recovery (n=5,629). There was significant variation in the equity of outcome score between the CCGs (figure 3). Despite having the lowest equity of access score, Tameside and Glossop CCG had a significantly higher equity of outcome score, with in excess of 80% of individuals who completed their treatment moving to recovery. The Glossop practices comprise only a proportion of the practices represented by Tameside and Glossop CCG, which had an overall recovery rate in 2013-14 of 44.0%.[xv]

The equity of outcome scores for the remaining CCGs had less variation, but Southern Derbyshire CCG had a significantly higher equity of outcome score than the other Derbyshire CCGs.

Figure 3: Equity of outcome scores, by Clinical Commissioning Group



4.3.2 Equity by district

Equity of access

There were 18,318 residents of Derbyshire who accessed Derbyshire IAPT services, 4,629 individuals resident in Derby City and 13,689 in Derbyshire County.

Equity of access scores varied from 14.0 in High Peak to 21.0 in Derbyshire Dales. High Peak includes the Glossop locality, which, as highlighted in section 4.3.1, has a significantly lower equity of access score compared to the rest of Derbyshire. Excluding the Glossop locality, the High Peak district had an equity of access score of 18.8, making it similar to the other districts within Derbyshire. With the exception of Glossop, the more rural districts (Derbyshire Dales, North East Derbyshire, Amber Valley, South Derbyshire and High Peak) had significantly higher equity of access scores than the more urban districts.

Equity of outcome

There were 5,510 adults resident in Derbyshire who successfully moved to recovery, 50.7% of individuals who completed treatment having attended at least two appointments. There was significant variation in the equity of outcome scores by district, ranging from 43.8 in Bolsover to 56.4 in Derbyshire Dales. As with the equity of access scores, the more rural districts had higher equity of outcome scores.

Figure 4: Equity of access score, by district

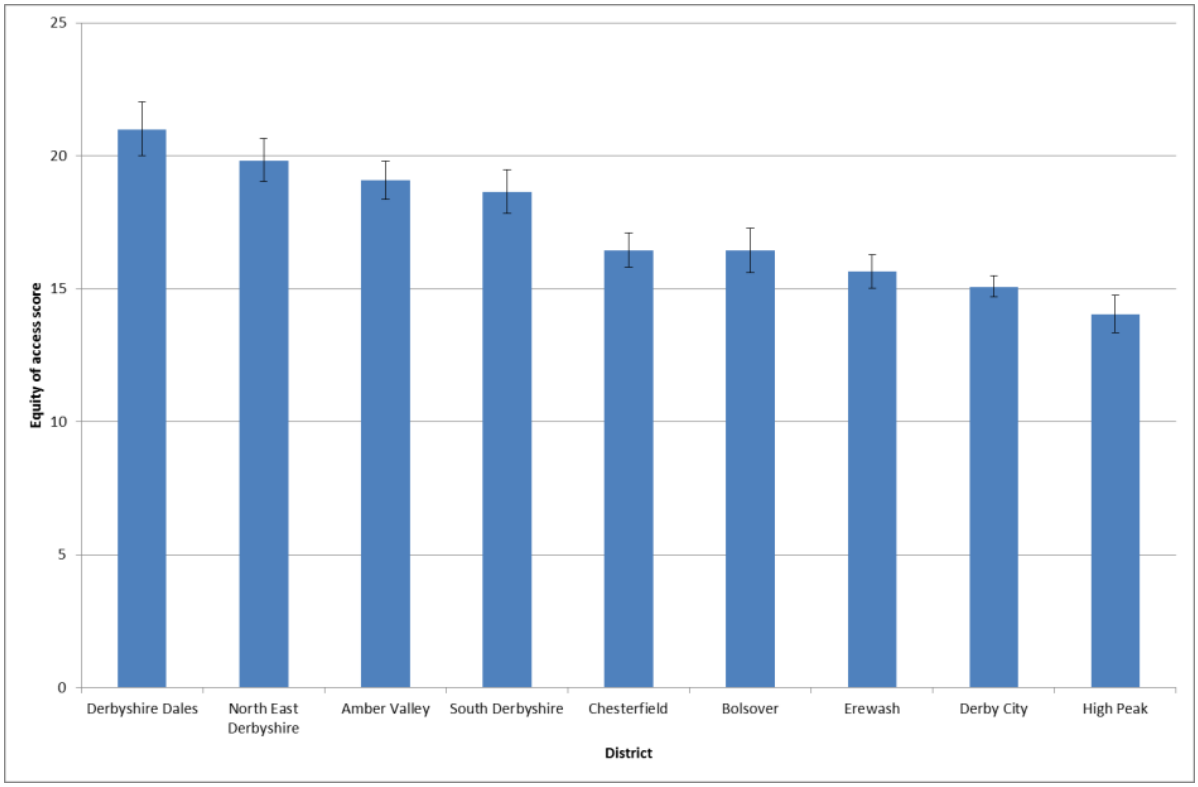
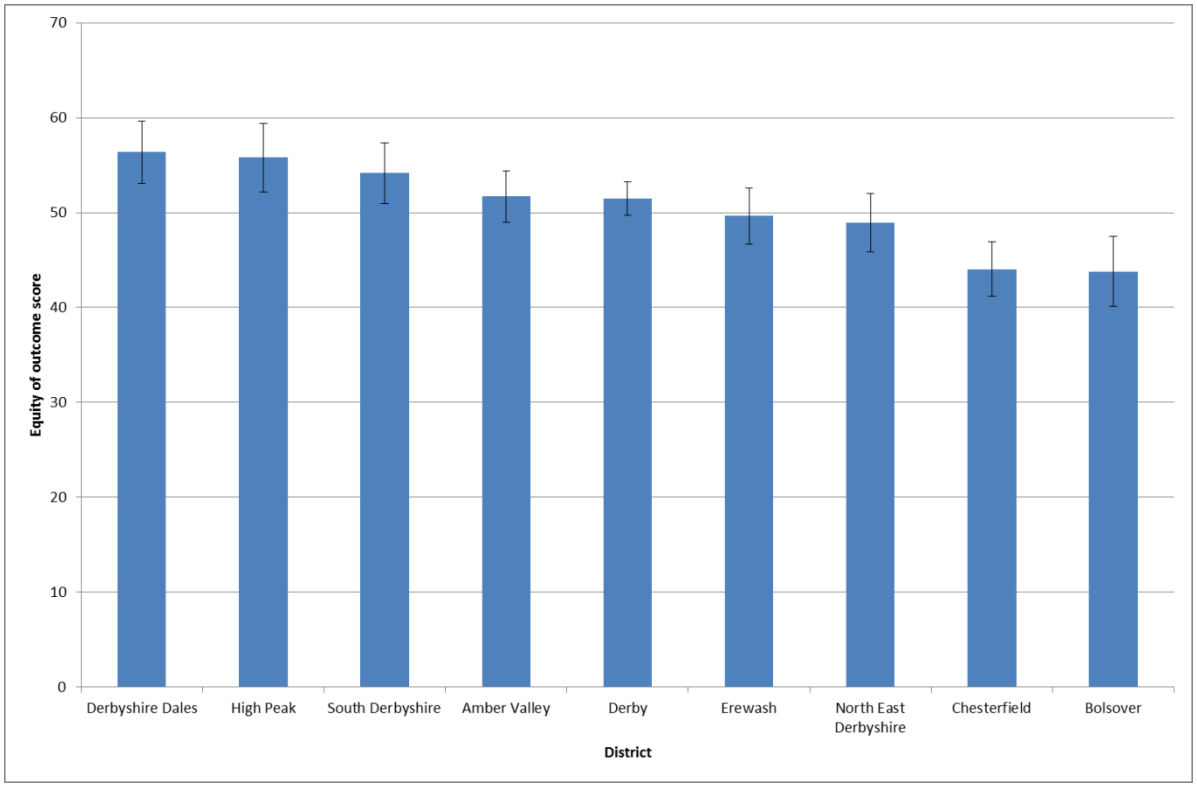


Figure 5: Equity of outcome score, by district

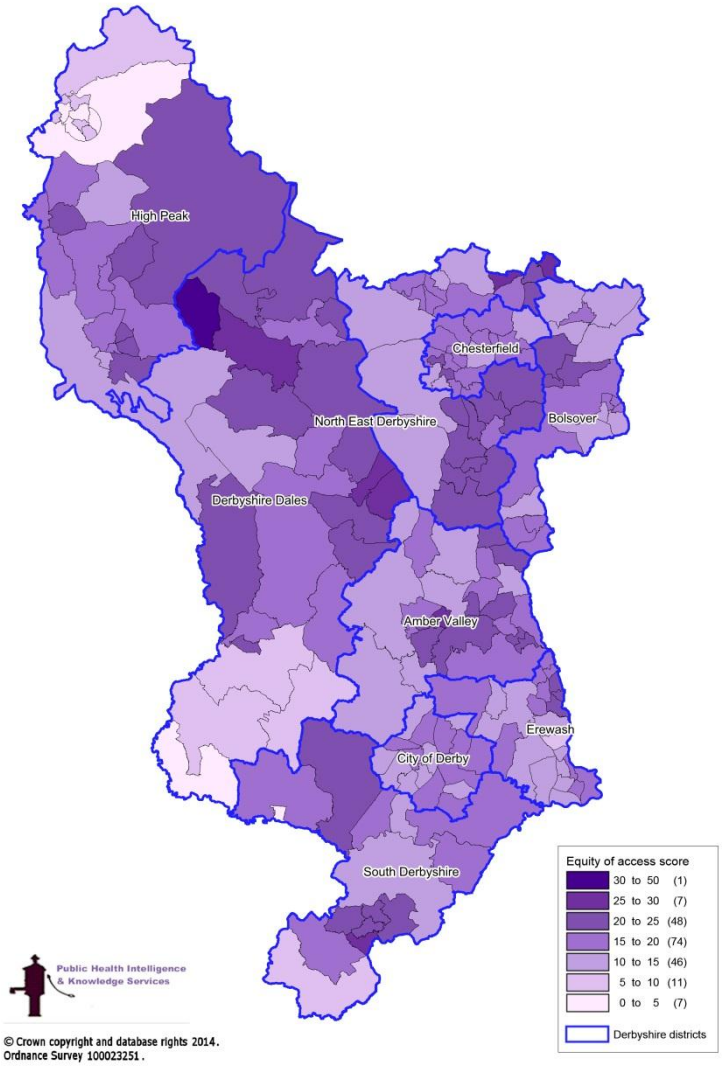


4.3.3 Equity by ward

Equity of access

Reviewing equity at a relatively large geographic level, such as by CCG or district, will mask variations within the area. Analysing equity of access by ward shows considerable variation across Derbyshire, with scores ranging from to 2.2 in St John's (High Peak) to 43.7 in Tideswell (Derbyshire Dales). Figure 6 highlights three areas with low equity of access scores: Glossop, the area of Derbyshire Dales south of Ashbourne, and Hatton ward. The wards with higher equity of access scores are distributed across the county. Within each district, there were a number of wards that had significantly higher or lower equity of access scores compared to the score of the district, and these are listed in table 1 in Appendix 1.

Figure 6: Equity of access scores for IAPT services, by ward

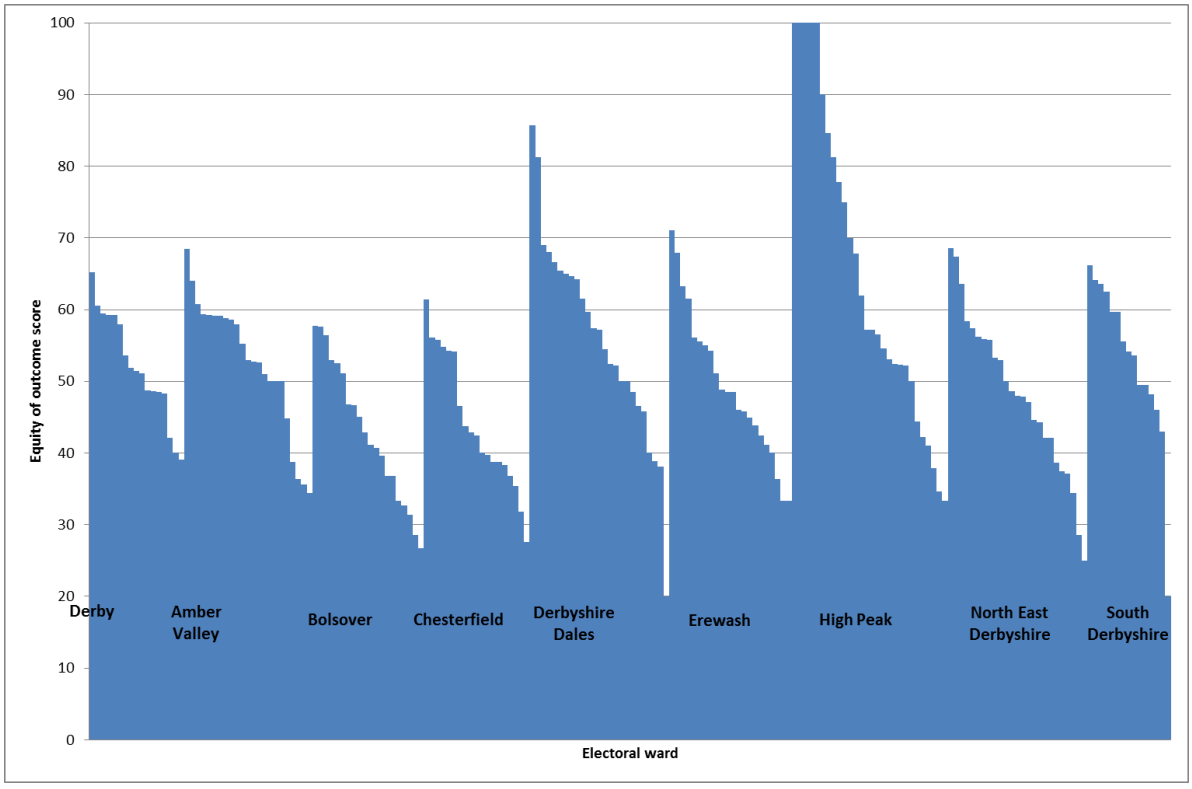


Equity of outcome

The number of individuals who moved to recovery ranged from 1 in Doveridge and Sudbury (South Derbyshire), Hatton (South Derbyshire) and St John's (High Peak) wards to 132 in Alvaston (Derby City). The majority of wards had less than 40 individuals who achieved recovery. Wards with low numbers of individuals who completed treatment will be susceptible to large changes in equity of outcome scores as a result of a small change in the number of individuals who recovered, which makes it more difficult to determine if there is significant variation between wards.

Despite the lack of statistical certainty, a review of the equity of outcome scores highlights considerable variation in the equity of outcome scores by ward (figure 7). Equity of outcome scores by ward ranged from 20.0 in Doveridge and Sudbury and Hatton wards (both in South Derbyshire) to 100.0 in five wards, all in the Glossop area of High Peak district (Dinting, Howard Town, Old Glossop, Simmondley and St John's). With the exception of Howard Town (where 14 individuals completed treatment), all of these wards had fewer than 10 individuals who completed treatment.

Figure 7: Equity of outcome scores for IAPT services, by ward



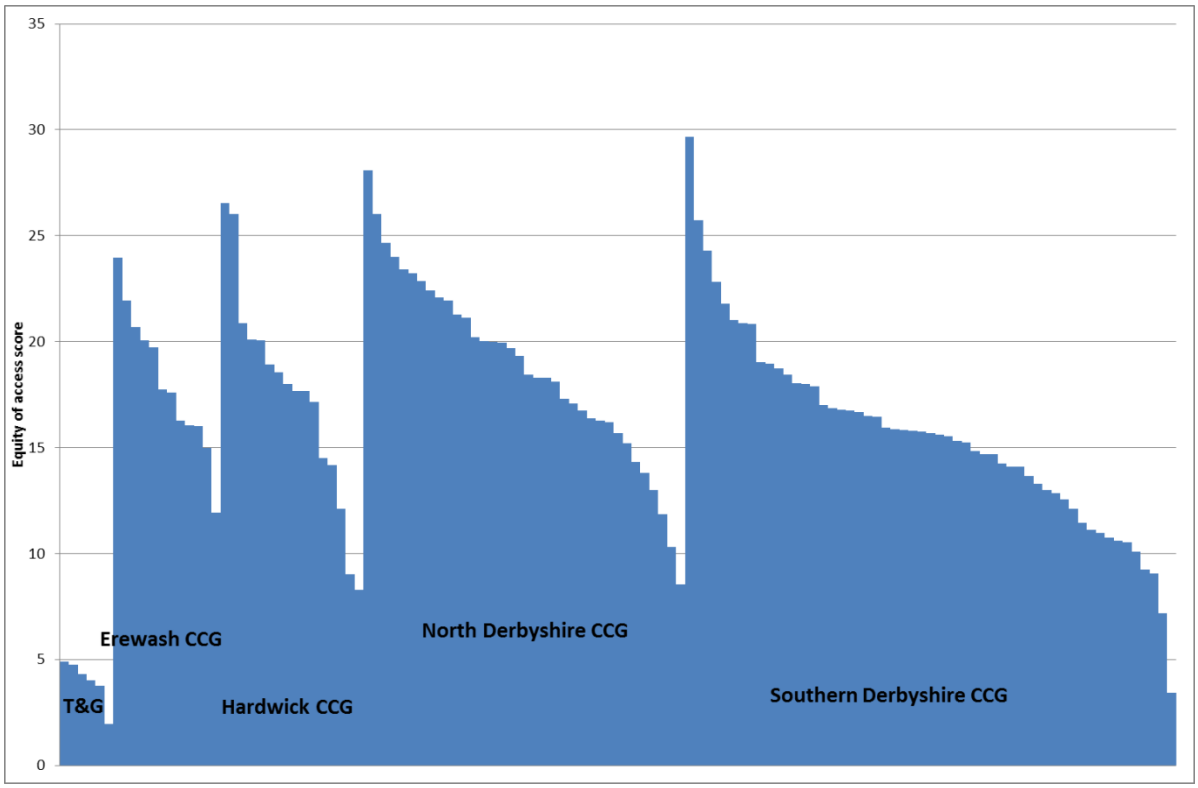
4.3.4 Equity by GP Practice

Equity of access

GPs are responsible for the majority of referrals made by health professional to IAPT services. Some variation in access to IAPT services by GP practice will be justified due to varying prevalence of common mental health problems within practice populations.

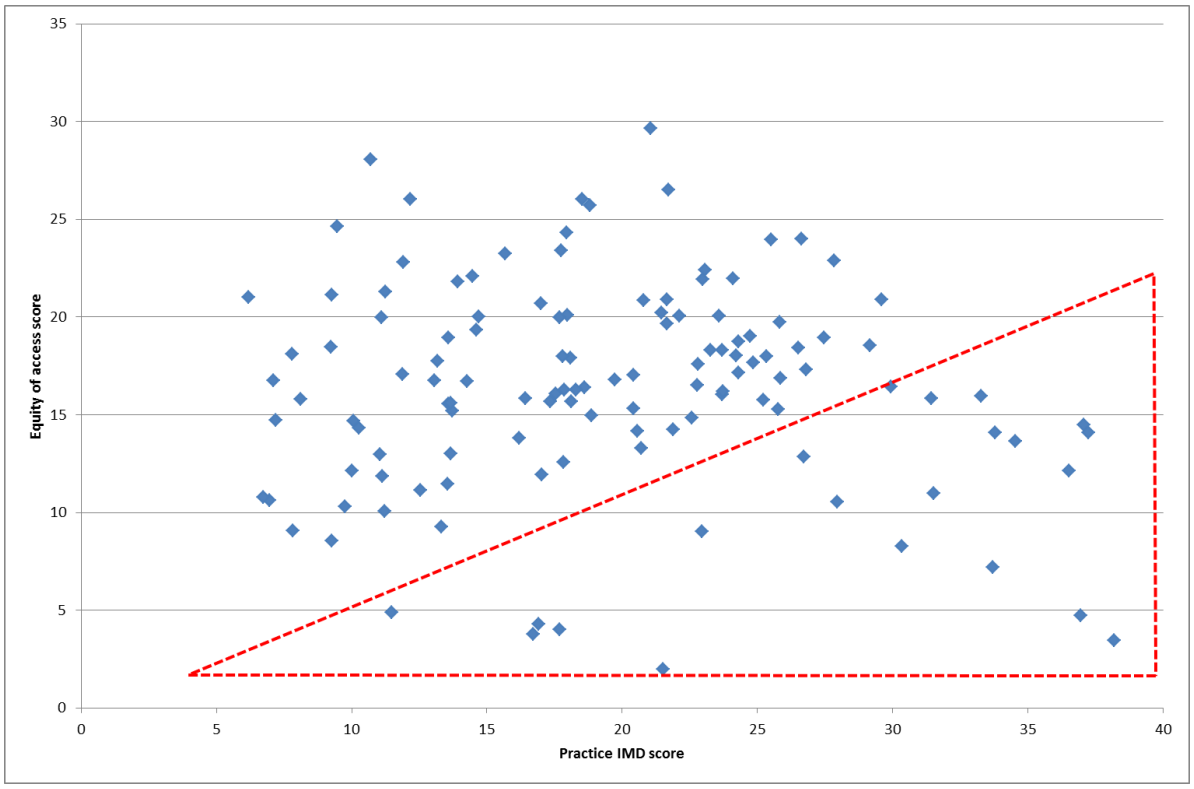
There is considerable variation in the equity of access scores between GP practices across Derbyshire, ranging from 2.0 at a practice in Tameside and Glossop CCG to 29.7 at a practice in Southern Derbyshire CCG (figure 8). GP practices with significantly higher or lower equity of access scores compared to their CCG are listed in Appendix 1.

Figure 8: Equity of access scores, by GP practice



GP practices with lower equity of access scores should not be assumed to have a lower level of need. Higher levels of need would be expected in GP practices that serve populations with higher levels of socio-economic deprivation. Comparing equity of access scores with practice deprivation can identify GP practices with lower than expected equity of access scores. Figure 9 demonstrates that there are a number of GP practices with higher levels of deprivation that have lower than expected equity of access scores, and these are clustered in the bottom right quadrant of the chart. However, some GP practices may provide or refer people with common mental health problems for treatment from services other than IAPT services.

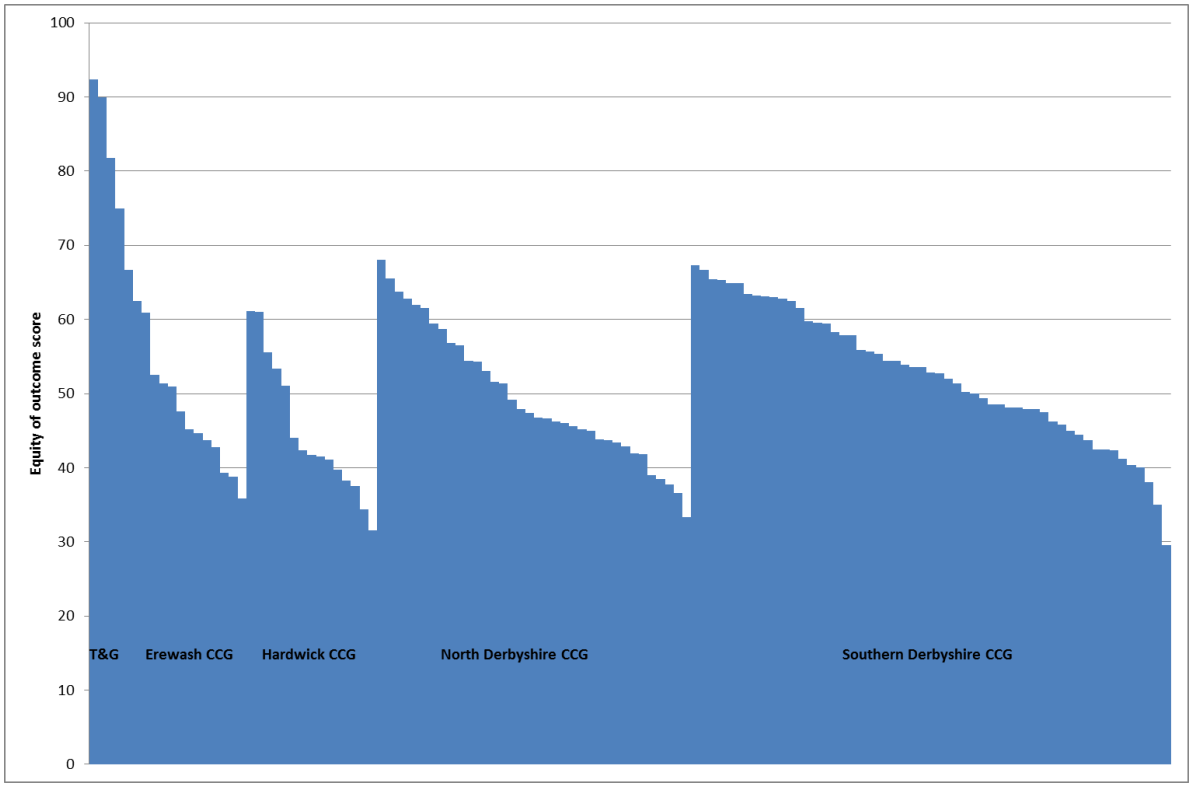
Figure 9: Equity of access and deprivation scores, by GP practice (those practices within red triangle have lower than expected equity of access scores based on their deprivation score)



Equity of outcome

The number of individuals who recovered at GP practices ranged from 3 at a practice in Tameside and Glossop CCG to 134 at a practice in Southern Derbyshire CCG. The majority of practices had less than 45 individuals who achieved recovery. Practices with low numbers of individuals who completed treatment will be susceptible to large changes in equity of outcome scores as a result of a small change in the number of individuals who recovered, which makes it more difficult to determine if there is significant variation between practices. Equity of outcome scores at practices ranged from 29.5 at a practice in Southern Derbyshire CCG to 92.3 at a practice in Tameside and Glossop CCG. Four of the highest five equity of outcome scores were from practices within the Glossop locality.

Figure 10: Equity of outcome scores, by GP practice



4.3.5 Equity by gender

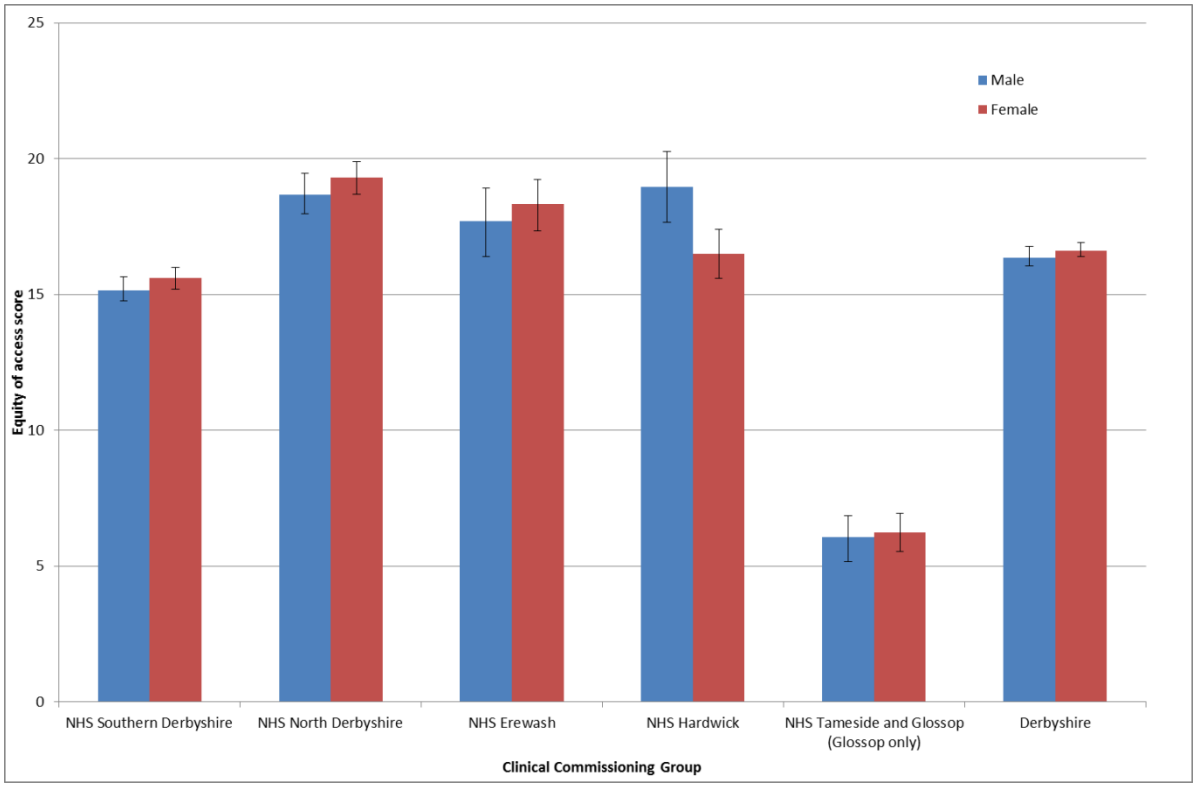
The prevalence of common mental health problems is higher in females compared to males, with 19.7% of females having symptoms suggestive of a common mental health problem in the last week, compared to 12.5% of males.[iii]

Equity of access

Gender was recorded for 99.9% of IAPT service users (n=18,723). Across Derbyshire, approximately twice as many females (n=12,009) accessed IAPT services than males (n=6,714). However, there was no significant difference in the equity of access scores between males and females (with equity of access scores of 16.4 and 16.6 respectively).

Equity of access scores were not significantly different between males and females by CCG, with the exception of Hardwick CCG (figure 11). In Hardwick CCG males had a significantly higher equity of access score compared to females.

Figure 11: Equity of access scores by gender, by CCG



There was more significant variation in equity of access scores between genders at a district level. Derby City and North East Derbyshire both had significantly higher equity of access scores for males, whereas Derbyshire Dales and South Derbyshire had significantly higher equity of access scores for females (figure 12).

Equity of outcome

There was no difference in the equity of outcome score between males and females (49.0 and 52.9 respectively) (table 5). Similarly, there was no difference in equity of outcomes scores by gender at either a CCG or district level (equity of outcome scores by district shown in figure 13).

Table 5: Equity of outcome scores, by gender

Gender	No. moved to recovery	Equity of outcome score (95% CI)
Male	1935	49.4 (47.8, 50.9)
Female	3691	51.3 (50.1, 52.4)

Figure 12: Equity of access scores by gender, by district

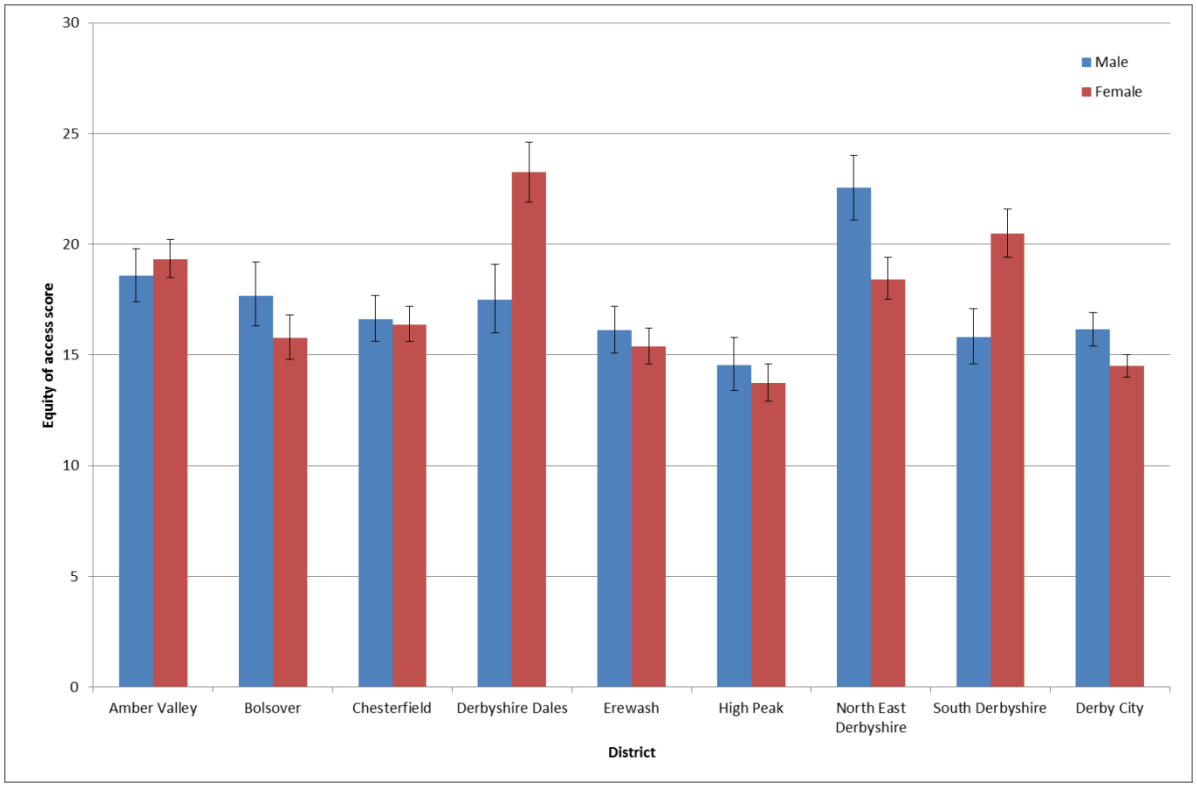
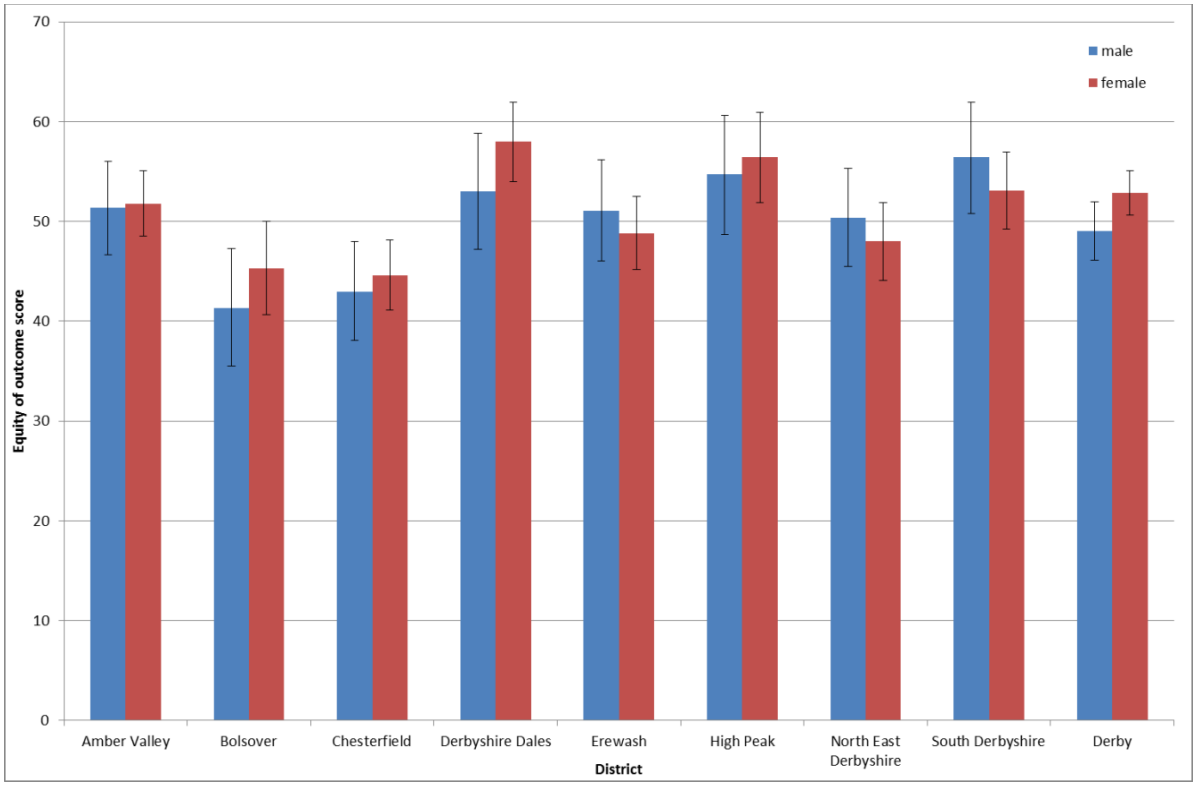


Figure 13: Equity of outcome scores by gender, by district



4.3.6 Equity by age

There are differences in the prevalence of common mental health problems by age group between males and females. For men, the highest prevalence of CMD is amongst those aged 25 to 54 years. For women, the highest prevalence of CMD is amongst those aged 16 to 34 years and 45 to 54 years. Both genders have the lowest rates amongst older adults.[iii]

Equity of access

Age was recorded for 99.9% of IAPT service users (n=18,723). Equity of access scores by age group were similar for both males and females. The highest equity of access score was amongst those aged 20 to 34 years, with equity of access scores then reducing as age increased. The lowest equity of access scores were amongst those aged 75 years and over. This pattern was observed across all CCGs (figures 14a and b).

Equity of outcome

For both genders, equity of outcome scores increased with age, despite there being the lowest levels of access to services amongst older adults. In males, the 65-74 year age group had significantly higher equity of outcome scores compared to younger age groups. In females, the 65-74 and 75+ year age groups had significantly higher equity of outcome scores compared to the young age groups (figure 15).

Figure 14a: Equity of access scores amongst males, by age and Clinical Commissioning Group

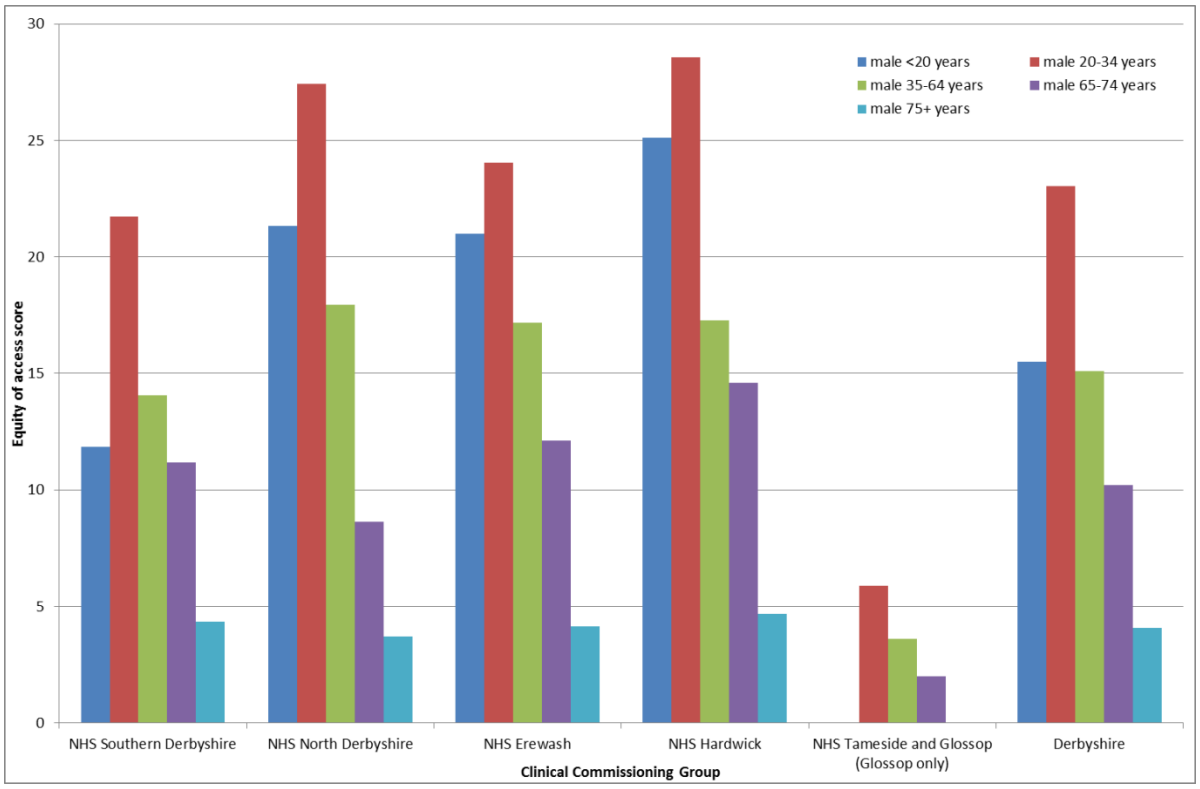


Figure 14b: Equity of access scores amongst females, by age and Clinical Commissioning Group

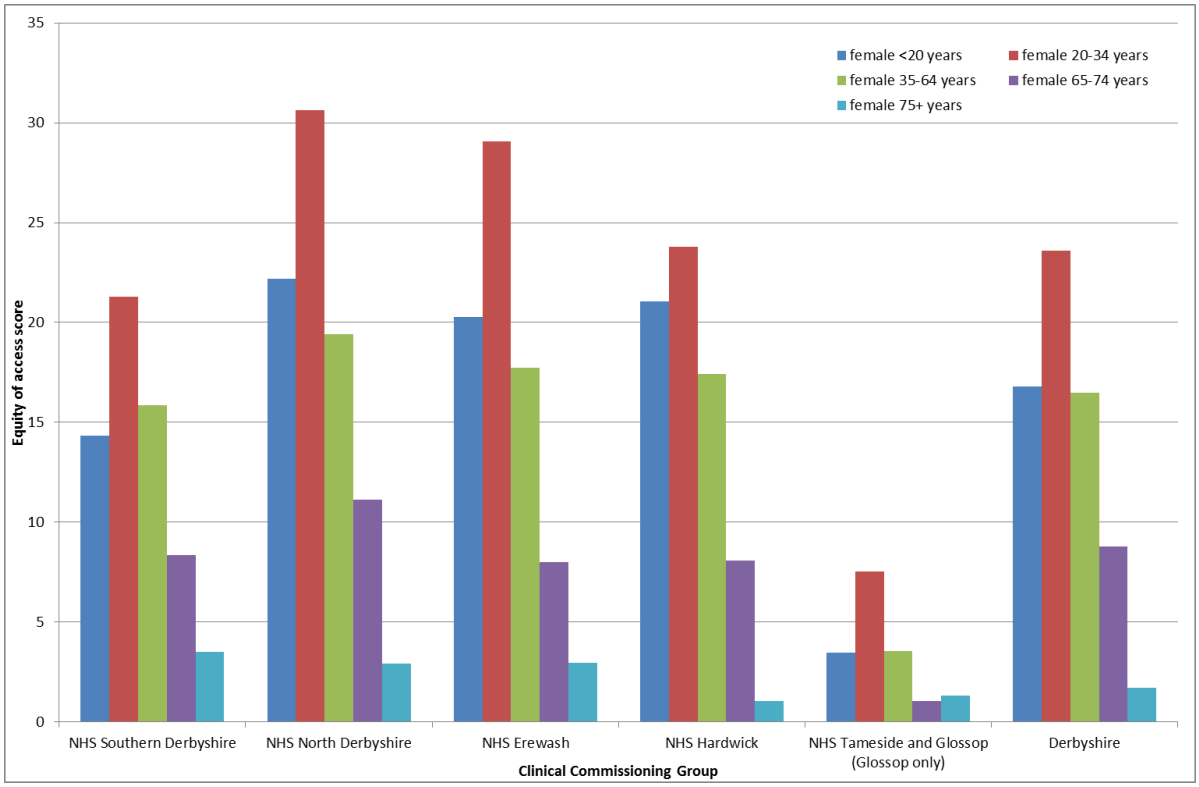
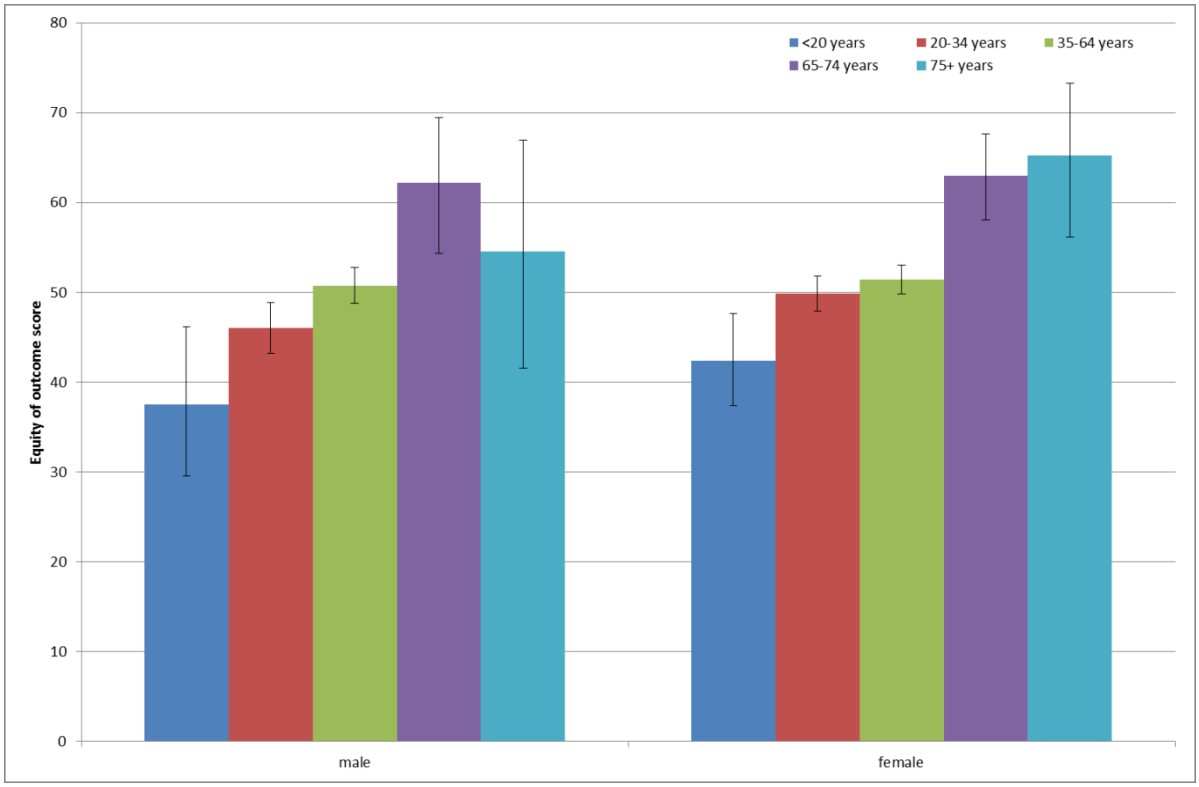


Figure 15: Equity of outcome score by gender and age



4.3.7 Equity by socio-economic deprivation

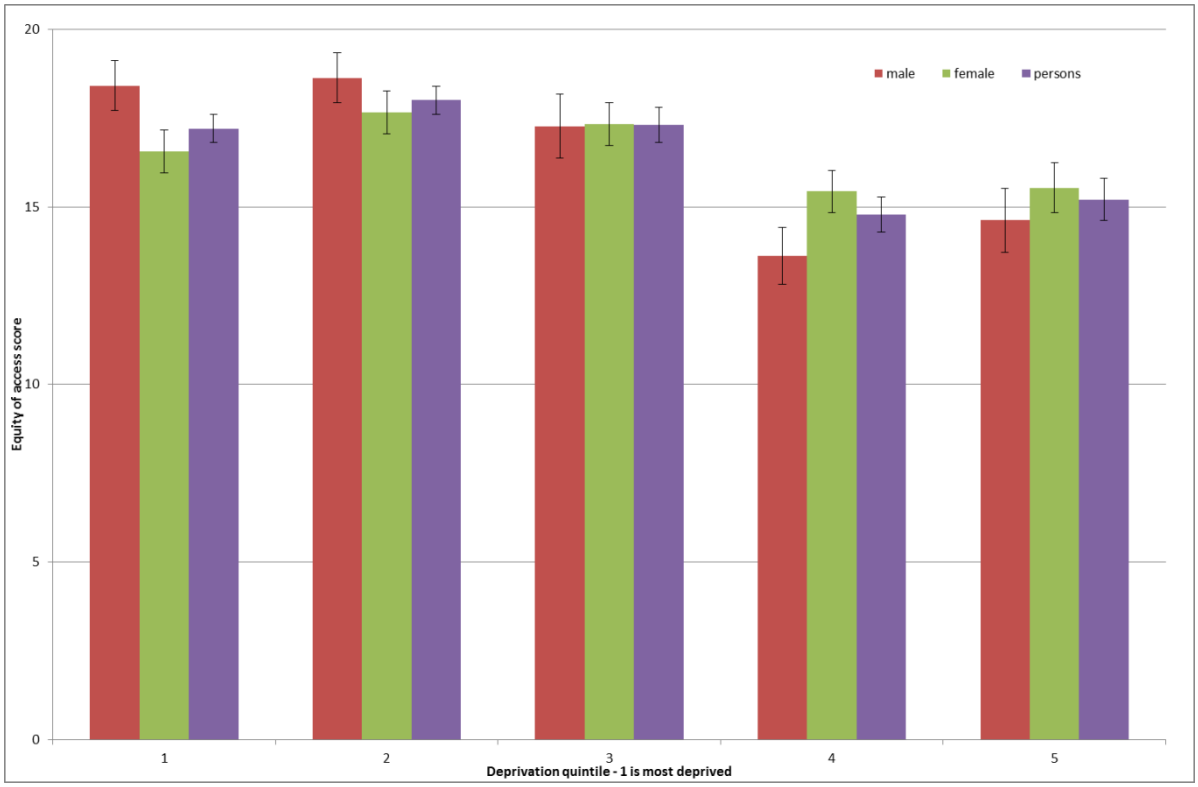
There are numerous risk factors that increase the likelihood of developing a common mental health problem, and many are linked to socio-economic deprivation. There is therefore a higher prevalence of common mental health problems observed in areas with greater socio-economic deprivation.[xvi] People in the lowest quintile of household income are more likely to have a common mental health problem than those in the highest quintile. After adjusting for age, men in the lowest household income group are three times more likely to have a common mental health problem than those in the highest income households.[iii]

Equity of access

In order to assess deprivation, ward-level Index of Multiple Deprivation (IMD) scores were used. Wards within Derbyshire were assigned to national deprivation quintiles based on their IMD score, with quintile 1 being the most deprived 20% of wards in England.

Similar patterns were observed in the equity of access scores for males and females. Quintile 2, the second most deprived quintile, had the highest equity of access score, with quintile 4, the second least deprived quintile, having the lowest. Quintiles 1, 2 and 3 had significantly higher equity of access scores than quintiles 4 and 5.

Figure 16: Equity of access scores by national deprivation quintile

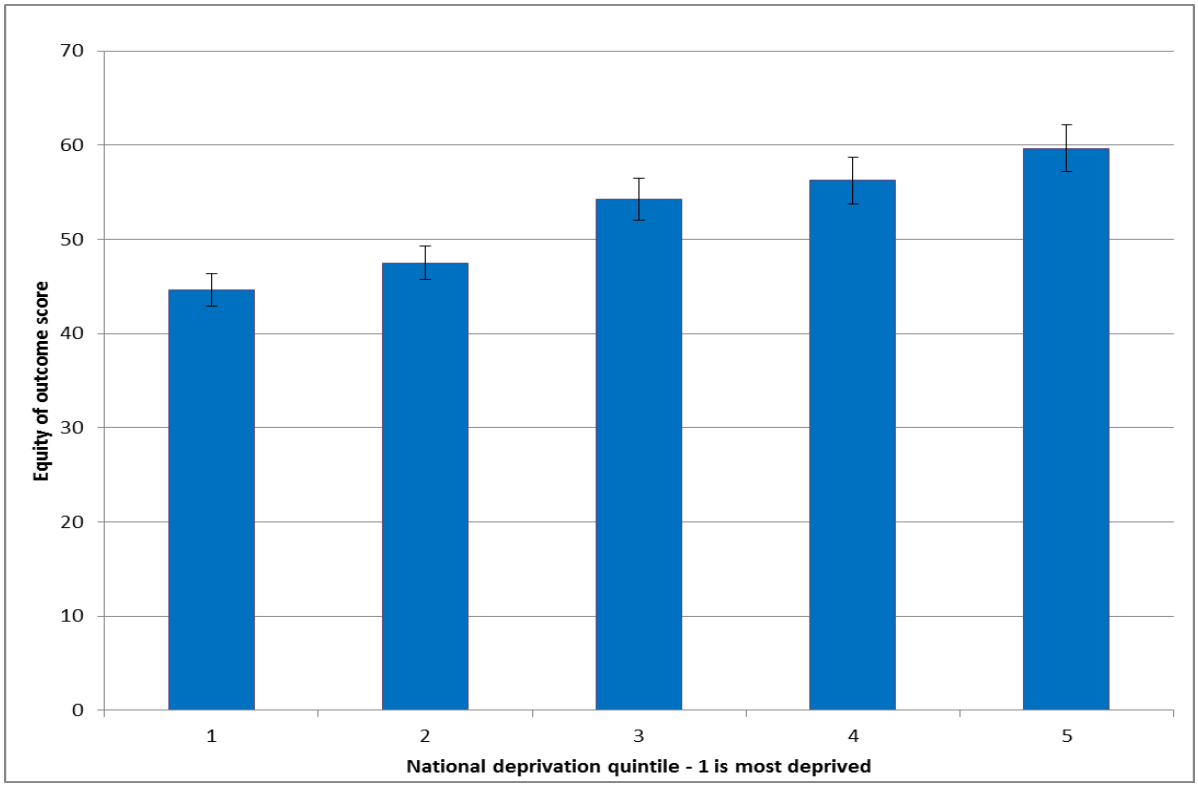


Equity of outcome

There is a gradient observed in the equity of outcome scores by deprivation. The most deprived quintile has the lowest equity of outcome score (44.6), and the least deprived quintile having the

highest (59.6) (figure 17). Therefore, despite having higher rates of access comparative to need, individuals from the most deprived areas in Derbyshire have significantly lower recovery rates.

Figure 17: Equity of outcome score by national deprivation quintile



4.3.8 Equity by ethnicity

Different ethnic groups have different rates and experiences of mental health problems. Amongst males, no difference in the rates of common mental health problems in the broad ethnic categories of White, Black, South Asian and Other has been reported. However, higher prevalence has been reported in South Asian women compared to women from White, Black and Other ethnic groups. It should be noted that the national survey that reported these results used very broad ethnic categories, and this may mask variability between different ethnic groups within the categories.[iii]

It should be noted that Derbyshire CCGs currently commission a project that works to support individuals from BME groups with mental health problems. This has involved training individuals from BME communities to be able to provide low-level support, and refer for additional support when required.

Equity of access

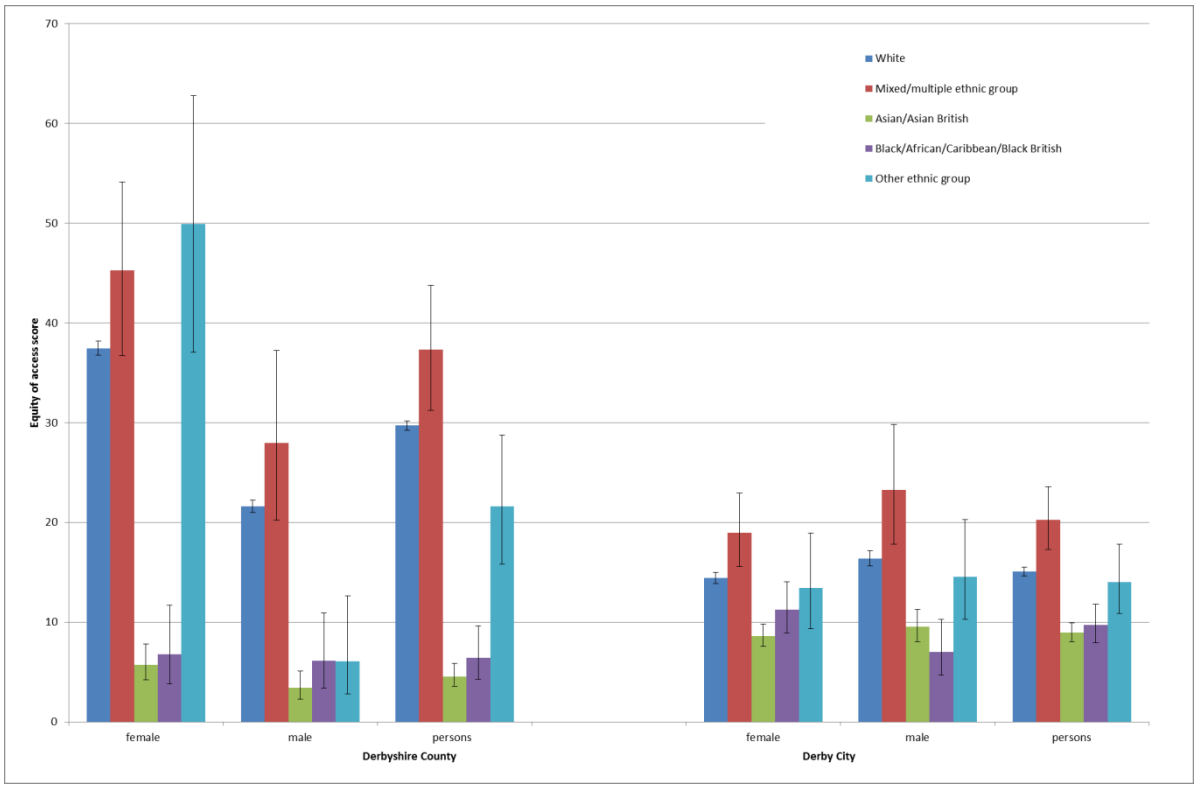
Information on the ethnicity profile for Derbyshire was obtained from Census 2011 data, which showed 24.7% of the population of Derby City and 4.2% of the population of Derbyshire County are from black and minority ethnic groups. Age and gender-specific rates of common mental health problems were not known for the different ethnic groups. Therefore, the population rates were applied to each ethnic group to calculate the estimated need within the population. This assumes

that each ethnic group has the same level of need for services. Ethnic groups with a higher prevalence of common mental health problems compared to the general population will therefore have an under-estimation of the need for services, and groups with a lower prevalence will have their need over-estimated. This methodology however does allow for identification of variation in access between ethnic groups.

Ethnicity was recorded for 94.4% of IAPT service users resident in Derby City (n=4,371) and for 80.2% of service users resident in Derbyshire County (n=10,982). Of those with ethnicity recorded, within Derby City, there were 586 individuals who accessed IAPT services who were from an ethnic group other than White (13.4%) and in Derbyshire County there were 197 individuals from an ethnic group other than White (1.8%).

There is much variation in the equity of access scores by ethnic groups across Derbyshire County and Derby City. Across both the city and county, compared to individuals from White ethnic groups, equity of access scores were significantly lower for Asian and Black ethnic groups, and significantly higher for individuals from Mixed and multiple ethic groups (figure 18).

Figure 18: Equity of access scores, by ethnicity

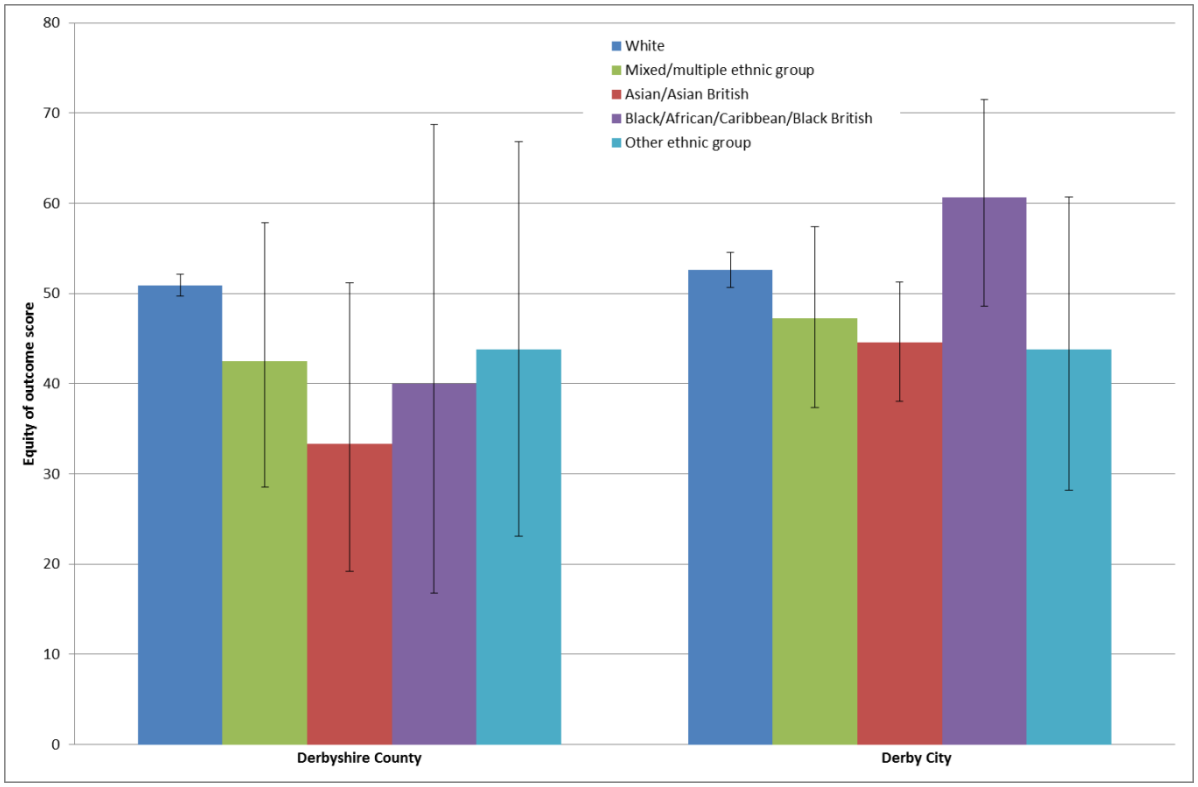


Equity of outcome

There was no significant difference in the equity of outcome scores between the different ethnic groups (figure 19). However, for the non-White ethnic groups, small numbers of individuals completing treatment and moving to recovery means that the confidence intervals are wide, and

therefore the sample may not be sufficiently large to detect a significant difference between ethnic groups.

Figure 19: Equity of outcome scores by ethnicity in Derby City and Derbyshire



4.3.9 Equity by disability status

Individuals with a disability are at increased risk of having a common mental health problem. Higher rates of depression have been recorded amongst individuals with hearing impairment,[xvii] sight loss[xviii] and long term progressive conditions[xix] compared to the general population.

Disability status was recorded for 44.9% of individuals accessing IAPT services (n=8,233). Of those with disability status recorded, 21.6% reported having a disability (n=1,777). Table 6 shows the breakdown by disability type.

Table 6: Breakdown by disability type

Disability type	Number (%)	Disability type	Proportion (n)
Mobility and gross motor	842 (46.6)	Sight	102 (5.6)
Behavioural and emotional	301 (16.6)	Manual dexterity	40 (2.2)
Progressive condition/Physical health	191 (10.6)	Personal self-care and continence	31 (1.7)
Memory/ability to concentrate, learn or understand	172 (9.5)	Speech	9 (0.5)
Hearing	120 (6.6)		

There was considerable variation in the completeness of recording of disability status and the prevalence of service-users with a disability between districts within Derbyshire. Derby City had the lowest proportion of individuals with disability status recorded (18.3%), with Amber Valley having the highest (73.9%). However, of those with disability status recorded, Derby City had the highest proportion with a disability (74.3%), and Amber Valley the lowest (7.7%) (table 3 in Appendix 1).

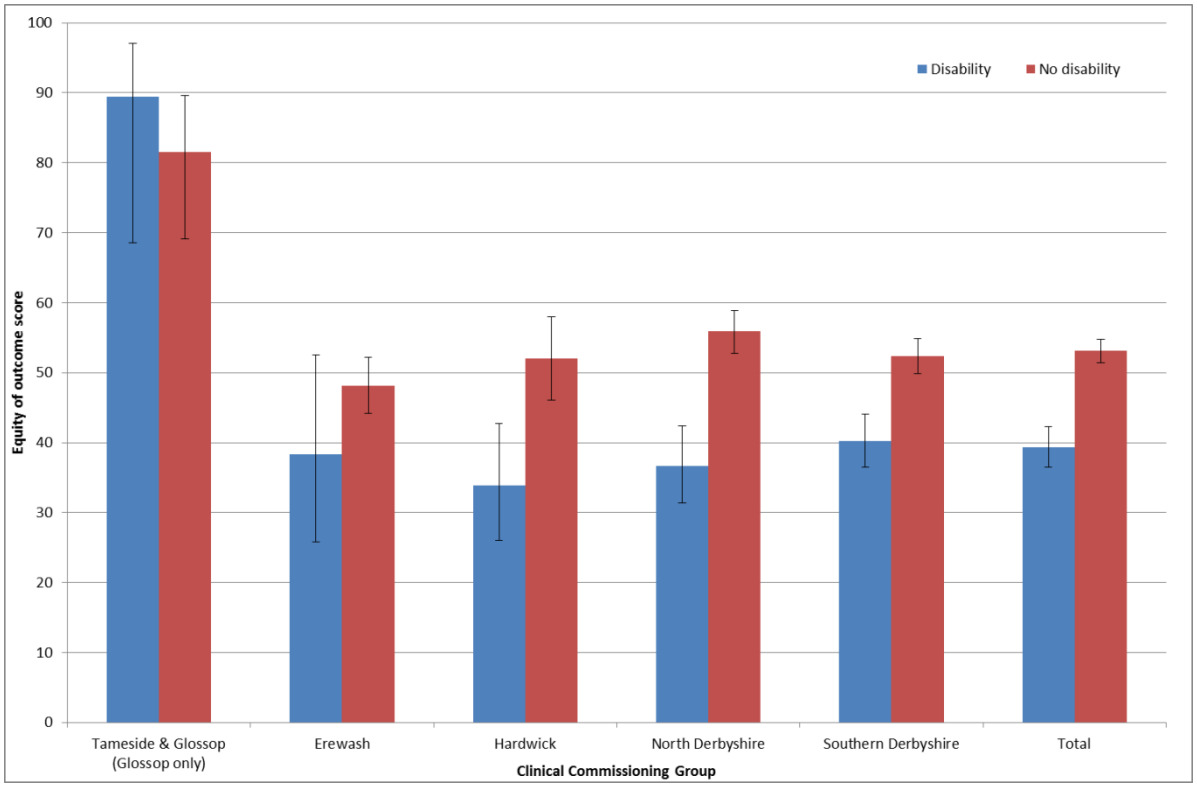
Equity of access

Due to the overall low recording of disability status, and variation between districts in the proportion of individuals who had their disability status recorded, equity of access scores have not been calculated.

Equity of outcome

A total of 1,100 individuals with a disability recorded completed treatment having attended at least two appointments, with 433 successfully moving to recovery. For all CCGs, with the exception of Glossop practices and Erewash CCG, individuals with a disability had a lower equity of outcome score (figure 20). The Glossop practices and Erewash CCG had the fewest number of individuals moving to recovery, and therefore the numbers for these localities may be too small to detect a significant difference in the scores.

Figure 20: Equity of outcome score by disability status, by CCG



4.3.10 Equity by learning disability

Estimated prevalence rates for anxiety and depression amongst individuals with learning disabilities vary, but are generally accepted to be at least as prevalent as the general population,[xx] and higher amongst people with Down's syndrome.[xxi]

Equity of access

There were 166 individuals with a learning disability that accessed IAPT services. There are no precise measures of the numbers of individuals with learning disabilities within a population, and therefore two different sources of data were used to estimate need amongst the learning disabled population:

- Estimates of the numbers of individuals within a local authority area with learning disabilities are provided by PANSI (Projecting Adult Needs and Service Information). In 2014, there were estimated to be 19,236 individuals with a learning disability in Derbyshire (comprising 4,657 in Derby City and 14,579 in Derbyshire County).
- GPs are required to maintain a register of patients at their practices that have a learning disability as part of the GP practice Quality and Outcomes Framework. Across Derbyshire in 2013, there were 5,518 individuals recorded on GP practice QOF Learning Disability registers.

The discrepancy between the estimates will be primarily due to the under-recording of individuals with mild learning disabilities on the GP Quality and Outcomes Framework register.[xxii]

To calculate the equity of access score, the estimated need for IAPT services amongst the learning disability population was assumed to be the same as that for the general population, and this has been applied to the above two estimates.

Using the PANSI estimate of the numbers of individuals with learning disabilities, the equity of access score is significantly lower for the learning disabled population compared to the general population (table 7). However, using the QOF register estimate of the numbers of individuals with learning disabilities, the learning disabled population have a significantly higher equity of access score than the general population.

Due to the range in the two estimates of the numbers of individuals with learning disabilities within Derbyshire, the equity of access scores should be interpreted with caution. The PANSI data source includes all individuals with learning disabilities, including those with mild learning disabilities, whereas the QOF register is known to under-record individuals with milder learning disabilities. There may also be misclassification of individuals with learning disabilities within the IAPT datasets used, for example individuals with mild learning disabilities may not be recorded as having a learning disability. The true equity of access score therefore most probably lies between 12.8 and 20.5.

Table 7: Equity of access scores for individuals with a learning disability recorded and general population

	Population size	**Estimated need**	**Numbers accessing IAPT services**	**Equity of access score (95% CI)**
PANSI estimate	19,236	2,453	166	12.8 (12.3, 13.2)
QOF register	5,518	810	166	20.5 (17.9, 23.4)
General population	874,705	113,396	18,734	16.5 (16.3, 16.7)

Equity of outcome

There were 26 individuals with a learning disability recorded who successfully moved to recovery. The equity of outcome score for individuals with a learning disability was significantly lower than the score for individuals without a learning disability (table 8). Due to small numbers of individuals with a learning disability who recovered, equity of outcome scores have not been calculated by CCG.

Table 8: Equity of outcome score by learning disability status

	Numbers moved to recovery	**Equity of outcome score (95% CI)**
Learning disability	26	31.3 (22.4, 41.9)
Non-learning disability	5,603	50.9 (50.0, 51.9)

4.3.11 Equity by presence of a long term condition

Individuals with a long term condition are at increased risk of having a common mental health problem. Overall, 30% of individuals with a long term condition also have a mental health problem, and the risk is higher amongst individuals with certain conditions, compared to the general population: [xix]

- prevalence of depression is 2-3 times higher in individuals with cardiovascular disease
- prevalence of depression is 2-3 times higher in individuals with diabetes
- prevalence of depression is 3 times higher in individuals with chronic obstructive pulmonary disease, and prevalence of certain anxiety disorders are 10 times higher
- prevalence of depression also reported to be higher than the general population in individuals with chronic musculoskeletal disorders, asthma, cancer and HIV/AIDS

There is also evidence that suggests the prevalence of common mental health problems increases with the number of co-morbidities experienced by an individual. [xix]

Equity of access

Census data was used to obtain an estimate of the number of individuals with a long term condition within Derbyshire. The estimate was based on the number of individuals who reported that their day-to-day activities were limited a lot or a little because of a health problem or disability that had lasted or was expected to last for at least 12 months. To calculate need for IAPT services, it was assumed that the rate of common mental health problems in individuals with a long term condition was double that of the general population.

Whether an individual had a long term condition was recorded for 14,331 (78.2%) of all who accessed IAPT services. Across Derbyshire, there were 2,668 individuals with a long term condition, 18.6% of those who had their long term condition status recorded. The completeness of recording varied between districts, from 67.8% completeness in South Derbyshire to 86.4% in Chesterfield, as did the prevalence of long term conditions, from 12.4% in Amber Valley to 26.4% in Derby City (see table 4 in Appendix 1).

In both Derby City and Derbyshire County, equity of access scores were significantly lower for individuals with a long term condition, compared to those without a long term condition (figure 21). In Derbyshire County, individuals with a long term condition had an equity of access score less than half that of individuals without a long term condition.

Equity of outcome

In all districts, individuals with a long-term condition had lower equity of outcome scores compared to those without a long term condition. However, the difference only reached a significant level in Bolsover, Derby City and when combining all districts. Across all districts, the equity of outcome score was significantly lower for those with a long term condition (45.6) compared to those without (52.5) (figure 22).

Figure 21: Equity of access scores by long term condition status

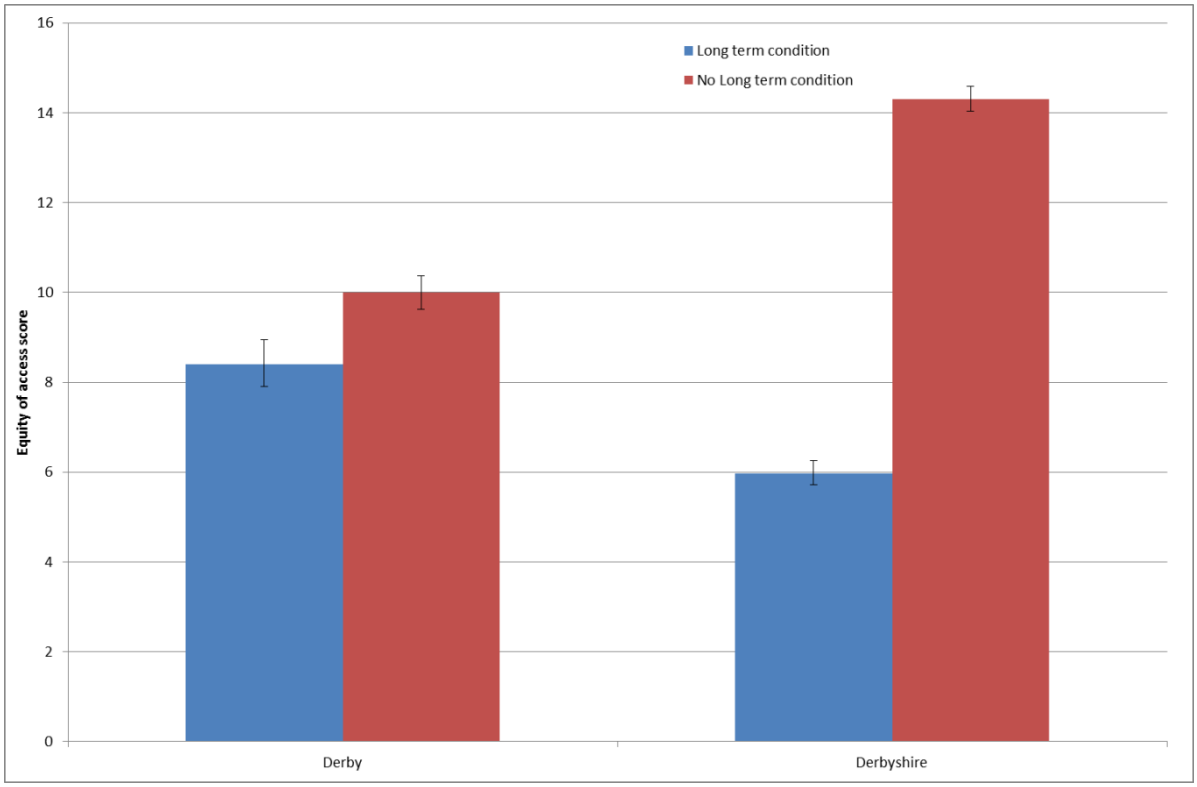
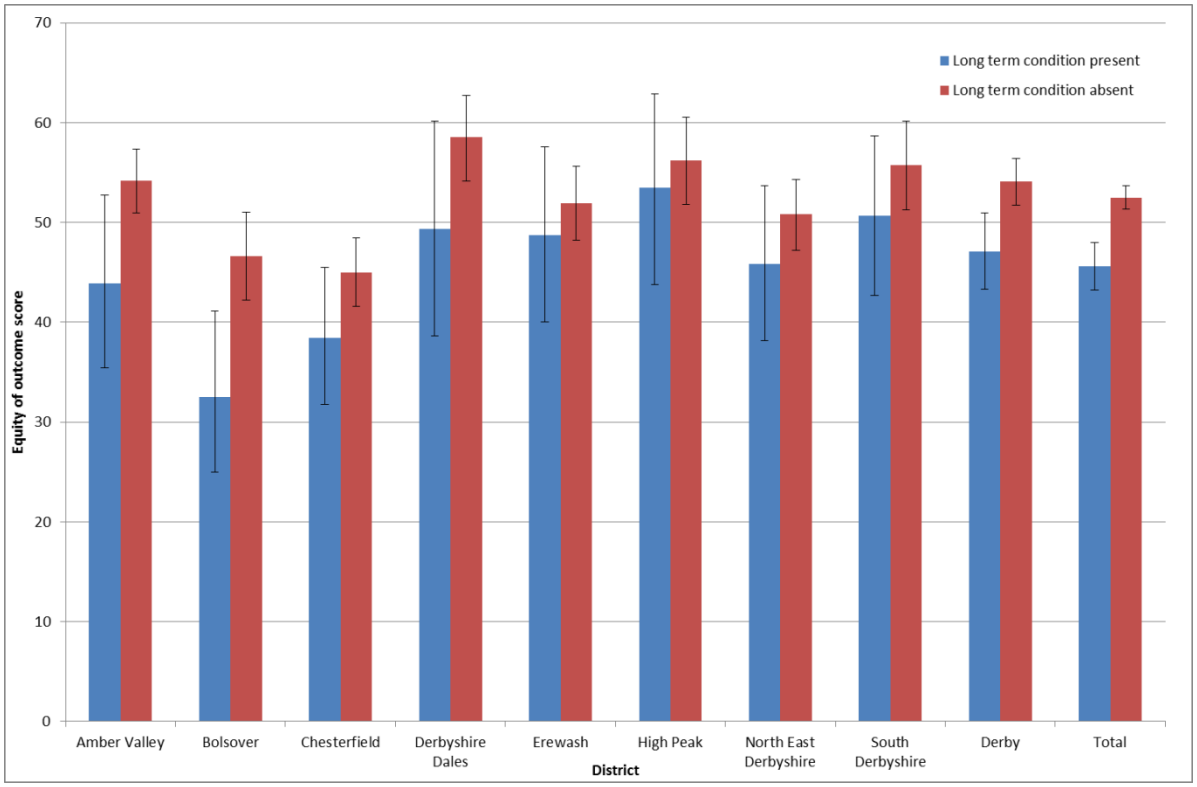


Figure 22: Equity of outcome score by long term condition status, by district



4.3.12 Equity by employment status

The links between employment status and mental health are well known, with unemployment being both a cause and a consequence of poor mental health. Individuals with mental health problems are at increased risk of becoming unemployed and may find it harder to regain employment. In addition, individuals who become unemployed are at increased risk of becoming depressed and anxious. For individuals with common mental health problems, remaining in work can be an important factor in moving to recovery.[xxiii]

As well as reducing the reliance on pharmacological treatment for individuals with common mental health problems, IAPT services were established to increase the number of individuals in receipt of Statutory Sick Pay who were able to return to work following treatment.

Equity of access

Employment status was recorded for 80.2% of individuals who accessed IAPT services (n=15,031), and this varied between districts. The following districts had more than a quarter of service-users where the employment status was not recorded: North East Derbyshire (55.8% of individuals where employment status not recorded), Chesterfield (47.9%), Bolsover (46.2%) and High Peak (30.7%).

National employment statistics provide information on the proportion of the population within each employment category, however, this information is not available with an age and gender breakdown. It has therefore not been possible to estimate the level of need for IAPT services within each category, nor calculate equity of access scores.

Just over half of all IAPT clients with their employment status recorded were in employment, with 15.0% being unemployed, and the remainder being economically inactive (table 9). Employment statistics for July 2013 to June 2014 showed unemployment rates amongst the 16 to 64 age group to be 7.2% in Derby City and 5.2% in Derbyshire County.

Due to the lack of an estimated need figure, it is difficult to assess whether any employment category has inequitable access to IAPT services. However, the over representation within the unemployed, compared to the unemployment rates in both Derby City and Derbyshire County, suggest that IAPT services are accessible to unemployed individuals.

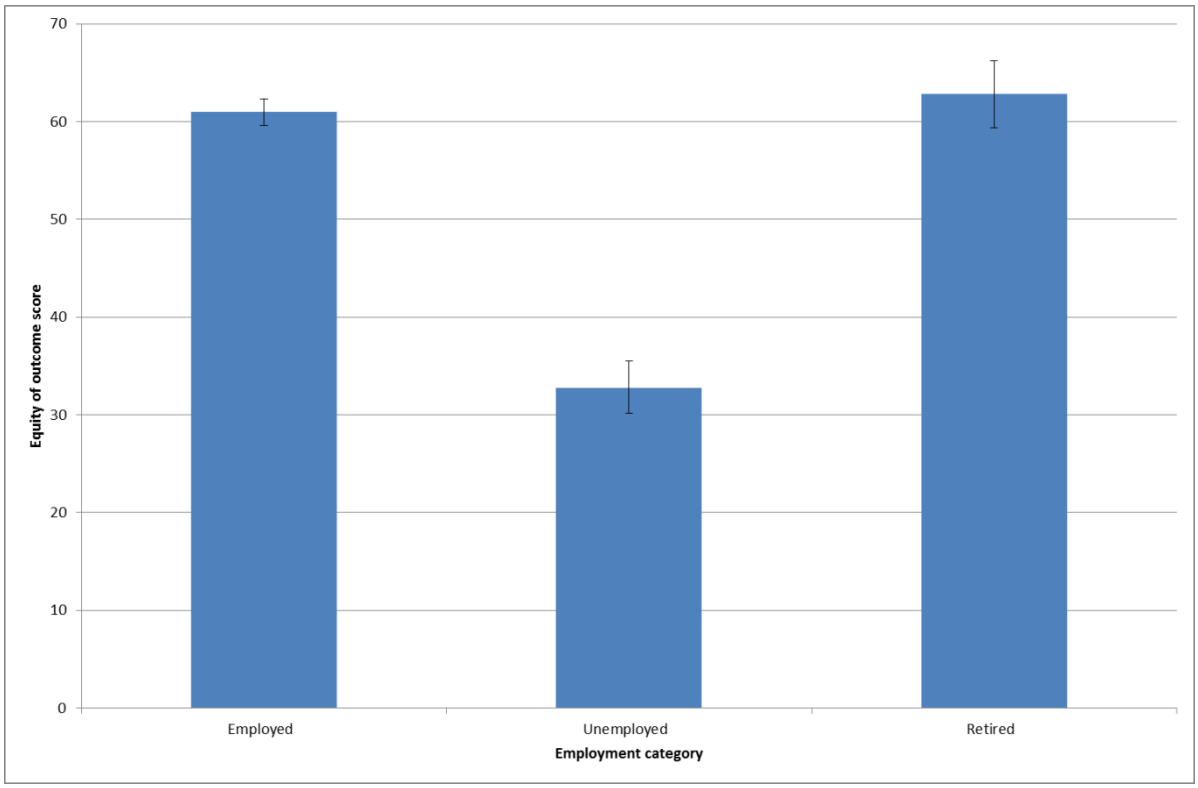
Equity of outcome

Due to the small numbers of individuals who completed treatment in some of the categories, equity of outcome scores have only been calculated for the employed, unemployed and retired categories. There was no difference between the equity of outcome scores for employed individuals and retired individuals, but individuals who classified themselves as unemployed had a significantly lower equity of outcome score (figure 23).

Table 9: Proportion of IAPT service-users by employment category

Employment category	Number accessing IAPT	Proportion of IAPT service-users (%)
Employed	7,895	53.8
Unemployed	2,204	15.0
Retired	1,239	8.4
Long term condition or disabled	1,014	6.9
Home maker	895	6.1
Not in receipt of benefits and not working	810	5.5
Students	574	3.9
Unpaid voluntary work	38	0.3
Total	**14,669**	**100.0**

Figure 23: Equity of outcome score, by employment category



4.3.13 Equity by sexual orientation

Studies consistently report a higher prevalence of depression and anxiety in lesbian, gay, bisexual and transgender individuals. A review of studies estimated that the risk of depression and anxiety was approximately twice as high amongst lesbian, gay and bisexual communities, and the higher

rates of psychological morbidity are most likely due to stigma and discrimination experienced by these population groups.[xxiv]

Equity of access and outcome

The data completion rate for the sexual orientation field was very low (<5%). It was therefore not possible to calculate equity of access or outcome scores by sexual orientation.

4.4 Factors promoting recovery

It is known that a number of factors pre-dispose individuals to successful recovery. A review of data from the first 32 IAPT services, comprising 19,395 service-user records demonstrated a number of factors that influenced the proportion of clients achieving recovery, including:[xxv]

- the higher the severity of condition on assessment, the less likely to recover
- services that stepped up a greater proportion of patients had higher recovery rates
- services with a greater proportion of sessions delivered by therapists banded at Agenda for Change Band 7 or above had higher recovery rates
- for low-intensity therapy, the higher the average number of sessions attended, the higher the recovery rate

Within the analysis for this section, only individuals who met the following criteria are included in the analysis:

- completed their treatment, having attended at least two sessions
- were classified as meeting "caseness" on assessment (that is scoring either 10 or more on the PHQ9 scale OR 8 or more on the GAD7 scale)
- were registered with a GP practice in Erewash, Hardwick, North Derbyshire or Southern Derbyshire CCGs

The statistical analysis considered factors on an independent basis only, and therefore did not investigate possible interactions between factors.

4.4.1 Severity of disease

All individuals who access services complete both the PHQ9 and GAD7 questionnaires on assessment, and therefore the severity of depression and anxiety can be categorised. The severity of depression may vary from the severity of anxiety within the same individual, but as long as the individual scores above caseness on either the PHQ9 or GAD7 questionnaires, and below caseness on both scales at the end of treatment, they will have achieved recovery. In order to facilitate analysis, the highest category of disease severity scored on either the PHQ9 or GAD7 questionnaire at assessment was used to categorise the severity of condition for each individual, with examples shown in the box below.

Defining severity of condition on assessment [NB these are only examples, and is not a comprehensive list of all possibilities]

Severity of depression on assessment	Severity of anxiety on assessment	Severity category
Minimal	**Mild**	**Mild**
Moderate	**Moderate**	**Moderate**
Moderately severe	Minimal	**Moderately severe**
Moderately severe	**Severe**	**Severe**

At initial assessment, 55.9% of individuals were assessed as having severe disease, with the lowest proportion (3.7%) having mild disease (table 10). As the severity of the condition increased, the proportion moving to recovery reduced, with individuals with a severe condition having a recovery rates of half that of those with a mild condition.

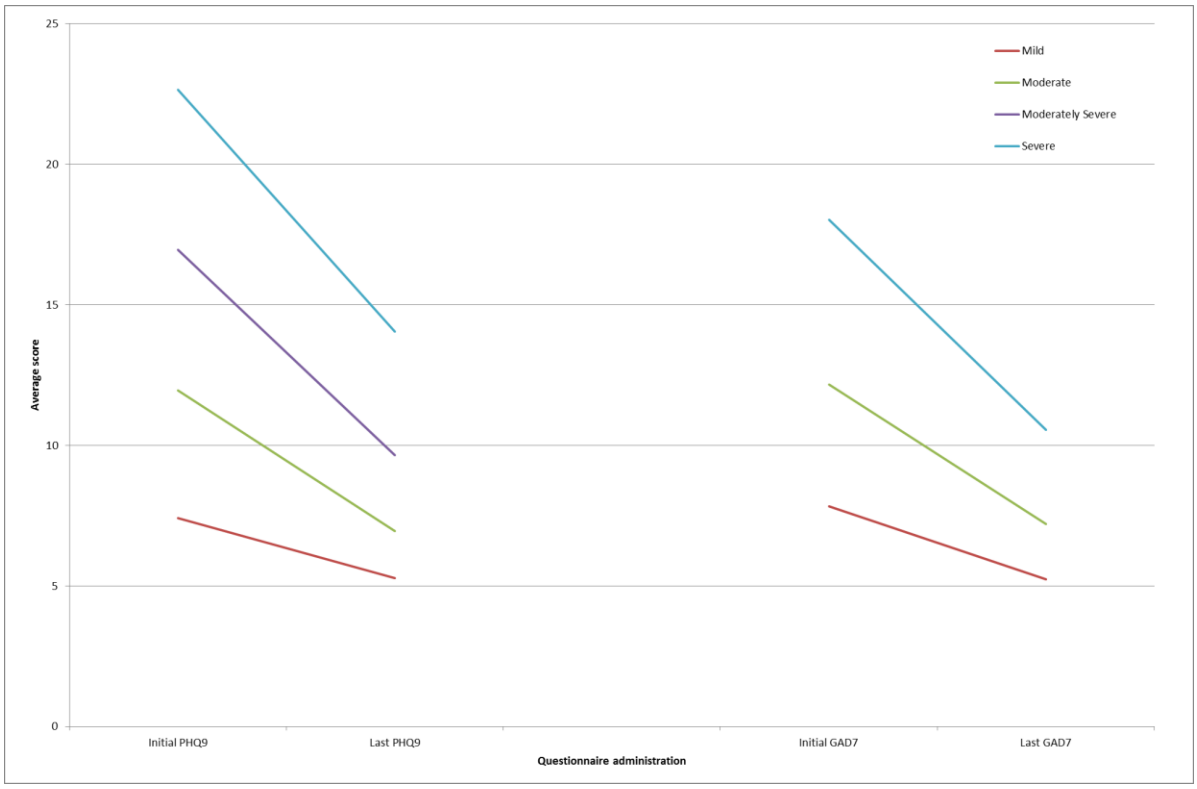
Table 10: Recovery rates by severity of condition at initial assessment

Severity at initial assessment	**Recovered (n)**	**Not recovered (n)**	**Proportion recovered (%)**	**Relative risk (95%CI)**
Mild	251	75	77.0	1.0
Moderate	1,563	757	67.4	0.88 (0.82, 0.93)
Moderately severe	679	579	54.0	0.70 (0.65, 0.76)
Severe	1,908	3,044	38.5	0.50 (0.47, 0.54)

The definition of recovery requires individuals to score below a threshold at their final assessment on both the PHQ9 and GAD7 scales. Individuals with a mild condition at assessment will therefore require less improvement between the pre- and post-treatment scores to achieve this threshold, whereas individuals with more severe disease at assessment will need a greater clinical improvement to achieve the recovery threshold.

Comparing the average pre-and post-treatment scores allows analysis of the clinical benefit of the IAPT services by disease severity. Figure 24 shows that individuals with severe depression on assessment had the greatest mean improvement in scores (a mean improvement of 8.59) compared to the other severity categories (moderately severe, moderate and mild had mean improvement scores of 7.31, 5.00 and 2.14 respectively). A similar picture was also observed for anxiety, with individuals with a higher severity of disease having a greater mean improvement score (7.48) compared to moderate (4.97) and mild (2.60).

Figure 24: Changes in pre-and post-treatment PHQ9 and GAD7 scores, by severity of condition at initial assessment



4.4.2 Number of sessions attended

NICE recommend that the number of sessions that an individual should receive will vary depending on the severity of their condition, and the intervention received. In general, individuals receiving low-intensity psychosocial interventions should receive 6 to 8 sessions over a period of up to 3 months, and individuals receiving high-intensity psychosocial interventions should receive 16 to 20 sessions over a period of up to 4 months.[xxvi]

The number of sessions attended by service-users ranged from 2 to 16. Figure 25 shows that as the number of contacts increases, the proportion of clients that received that number of contacts greatly reduces, and this occurs regardless of the severity of condition on assessment. Only a minority of individuals seen by Derbyshire IAPT services received the NICE recommended number of sessions:

- for individuals with mild disease on assessment, 35.0% of individuals received more than 6 contacts
- for individuals with moderate disease on assessment, 40.0% of individuals received more than 6 contacts
- for individuals with moderately severe disease on assessment, 41.3% of individuals received more than 6 contacts
- for individuals with severe disease on assessment, 42.6% of individuals received more than 6 contacts

Figure 25: Number of contacts received, by severity of condition

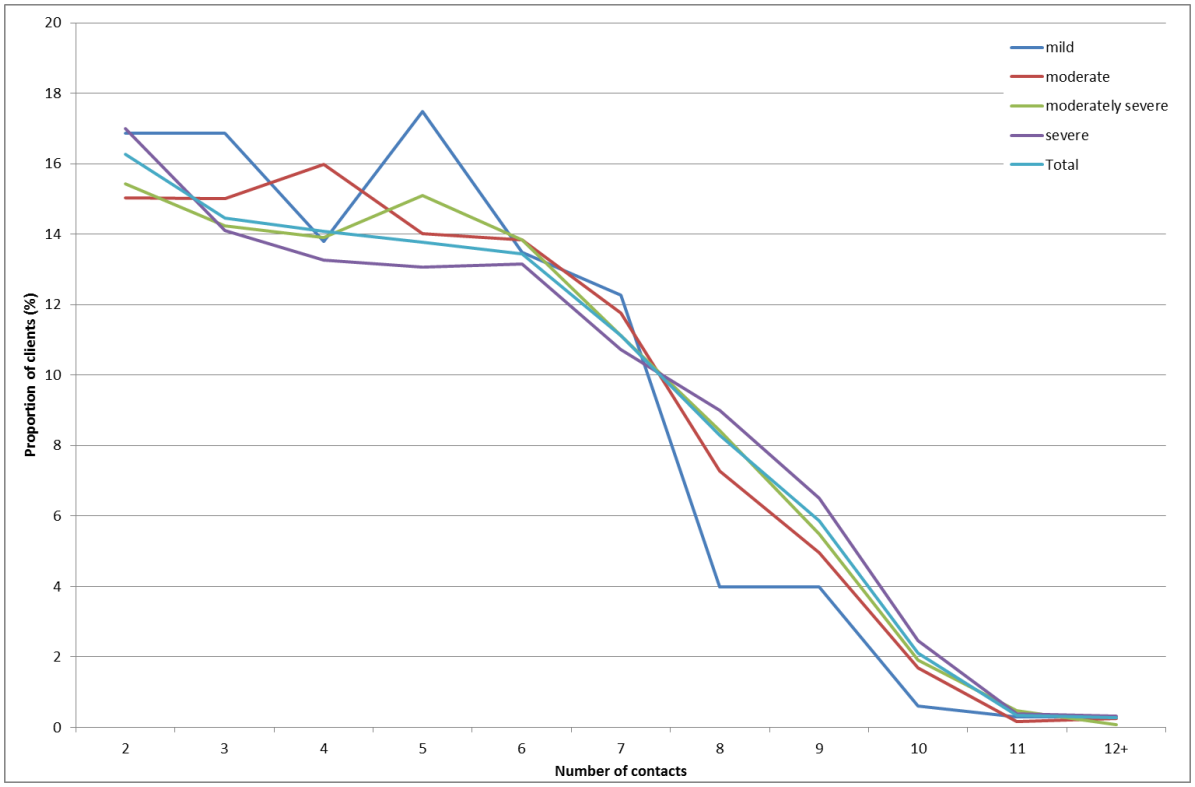
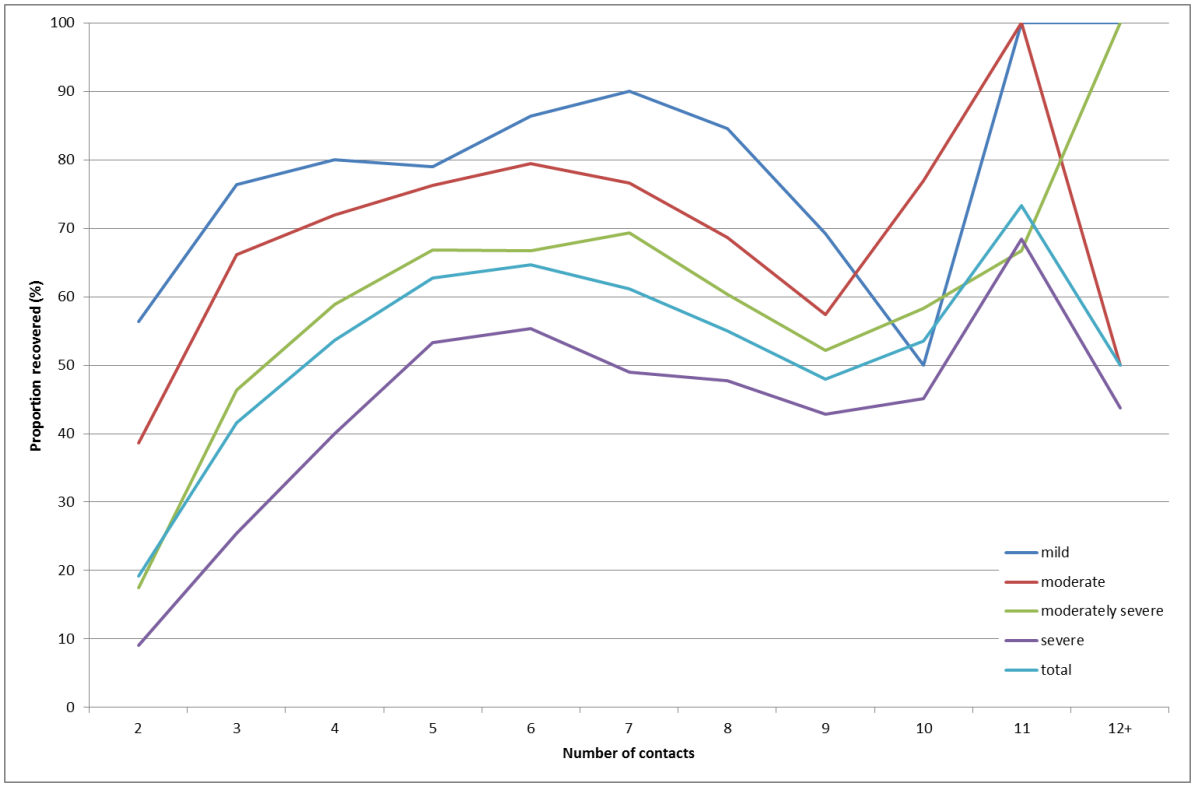


Figure 26 shows that there was not a linear relationship between recovery rate and the number of contacts individuals received. Individuals who attended four or less sessions had lower recovery rates than those who attended between five and seven. The highest recovery rate was amongst those that attended approximately 6 sessions, although this did vary slightly by disease classification. Recovery rates then reduced as more sessions were attended. Recovery rates also appear to increase again for individuals who attended 10 or more sessions, although only a very small number of individuals received this many contacts (n=241, 2.7%). It is therefore difficult to determine the true recovery rates for individuals who attend 10 or more sessions.

Individuals with 4 or fewer contacts also had a lower clinical improvement compared to individuals with five or more contacts. The mean improvement on the PHQ9 scale for individuals with 4 or fewer contacts was 4.57, compared to 7.80 for those who received five or more contacts.

Figure 26: Recovery rate by number of sessions attended, by severity of condition at assessment



4.4.3 Step of care received

Approximately two thirds of all individuals were discharged from step 3 treatment (66.5%). This is higher than the national data, but an advantage of the stepped care model is that it allows individuals to be stepped up and down depending on how they respond to treatment. Approximately one third of all individuals received both step 2 and step 3 therapy, with half receiving step 3 therapy only (table 11). There was no difference in recovery rates between those that received step 2 only, step 3 only, or mixed step therapy.

Table 11: Recovery rate by step of care received

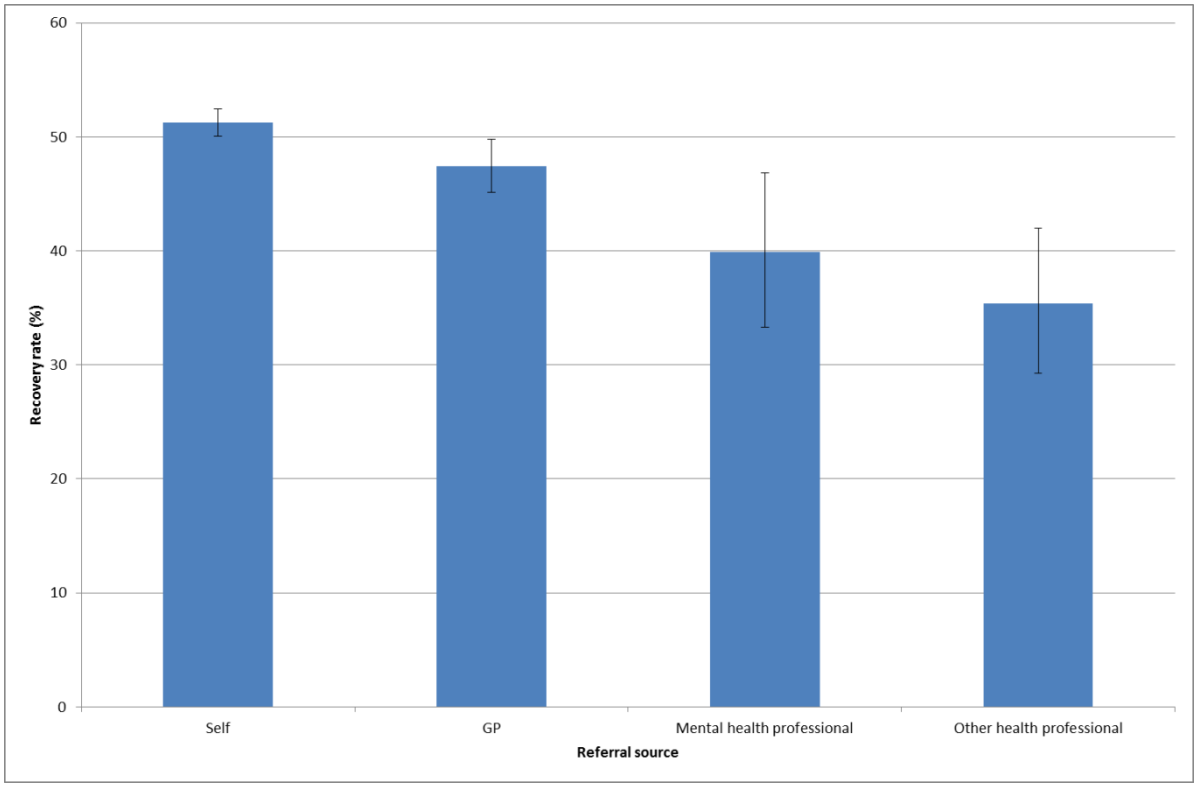
Step of care received	Recovered (n)	Not recovered (n)	Proportion recovered (%)	Relative risk (95% CI)
Step 2 only	715	737	49.2	1.0
Step 3 only	2,203	2,239	49.6	1.01 (0.95, 1.07)
Mixed	1,483	1,479	50.1	1.02 (0.95, 1.08)

4.4.4 Referral source

Individuals can be referred to IAPT services by a variety of routes, including self-referral. The majority of referrals are self-referral (74.3%), followed by referrals made by a GP (20.0%). The recovery rate was significantly higher amongst self-referrals (figure 27). It is not possible to differentiate the self-referrals who have been provided with information by their GP or another health professional and subsequently contacted the services, from those who contacted the IAPT services without being provided with any information. However, the higher recovery rate amongst those that identify as having self-referred, may indicate a higher motivation to access treatment.

It is also not possible to assess the appropriateness of referrals by individual referrers. The dataset identifies referral source only, and not individual referrers. Referrers with a high recovery rate (which may suggest good practice in identifying and referring individuals into the service) cannot therefore be identified.

Figure 27: Recovery rate by referral source



5 Economic analysis

5.1 Derbyshire Tariff

The tariff for IAPT services commissioned by Derbyshire CCGs (excluding those commissioned by Tameside and Glossop CCG) are shown in Table 2, in section 2.2.1. In summary, the tariff comprises:

- a payment for individuals who receive an assessment only appointment
- a payment for individuals who receive more than two sessions, comprising
    - approximately 75% for treatment costs, regardless of the number of contacts an individual receives
    - approximately 25% for "meeting recovery" (there is also a partial recovery payment of 12.5% for individuals treated within high-intensity interventions who do not meet the definition of recovery, but have demonstrated a clinical improvement in their condition)

5.2 Results

The total cost of IAPT services in 2013/14 were £4,252,495. The contract for service commenced on 1st April 2013, and therefore this figure will not include payment to providers for individuals who accessed services prior to this date and were still in treatment on 1st April 2013, for whom providers received payment under the previous contract.

Figure 28 demonstrates that the overwhelming majority of the spend (86.9%) was on individuals who were discharged from high intensity treatment. Individuals who received an assessment only, with no treatment sessions, contributed 3.3% of the total spend, with individuals discharged from low intensity therapy contributed 9.7%. As highlighted in section 4.4.3, a higher proportion of individuals seen by IAPT services in Derbyshire are supported at step 3, which may be due to the differential between the payment for treatment and recovery in step 2 and step 3. Payment for a non-recovered individual discharged from step 3 is four times higher than a non-recovered individual discharged from step 2. For individuals who achieve recovery, the difference is 3.9 times higher for an individual discharged from step 3 therapy.

Comparing the proportion of spend with the proportion of individuals seen for each tariff outcome shows that the proportion of the total costs allocated to step 3 treatment was considerably higher than the proportion of service-users within the step 3 tariff categories (figure 29). The costs paid to providers for individuals who received step 3 treatment and recovered contributed almost 50% of total expenditure, but only one quarter of service-users were within this category. Similarly, there was a higher proportion of total spend on individuals discharged from step 3 therapy who did not recover, or who made a partial recovery. Conversely, individuals who received step 2 treatment and recovered contributed almost 10% of service-users compared but only less than 5% of total spend.

Figure 28: Total spend by tariff outcome

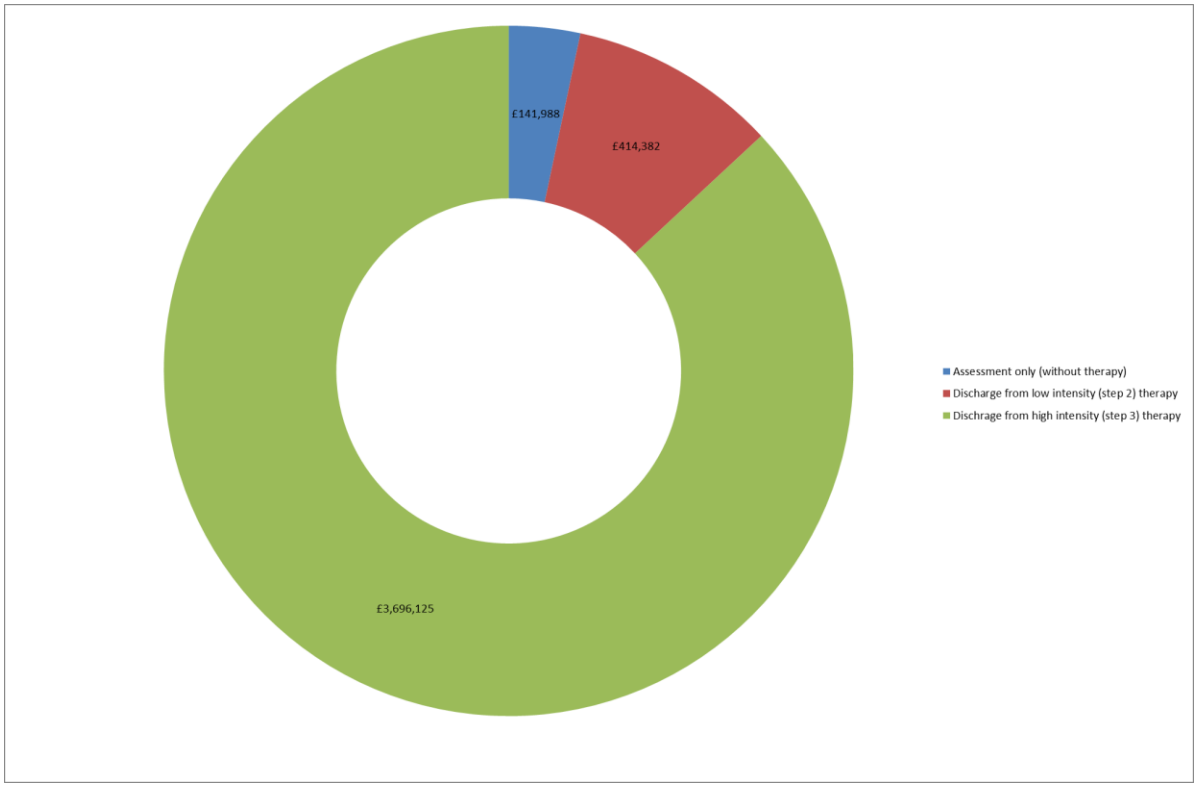
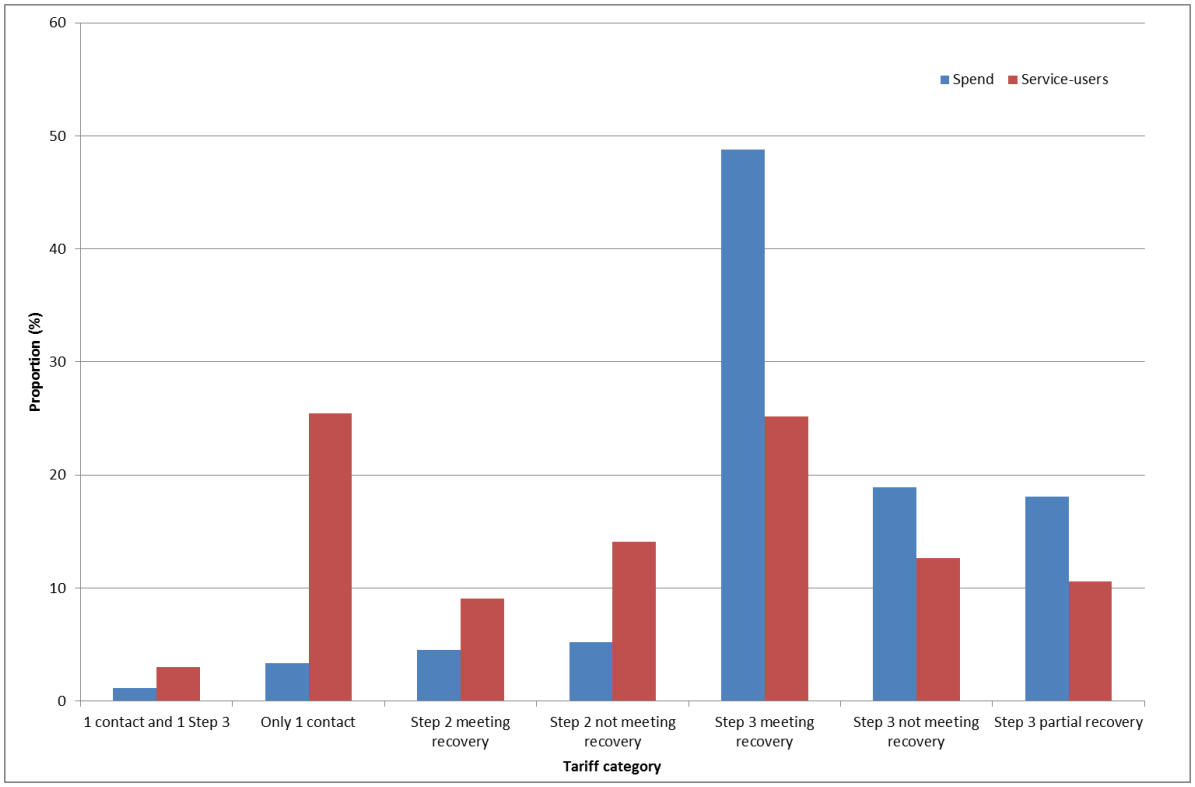


Figure 29: Proportion of spend and service-users by tariff outcome



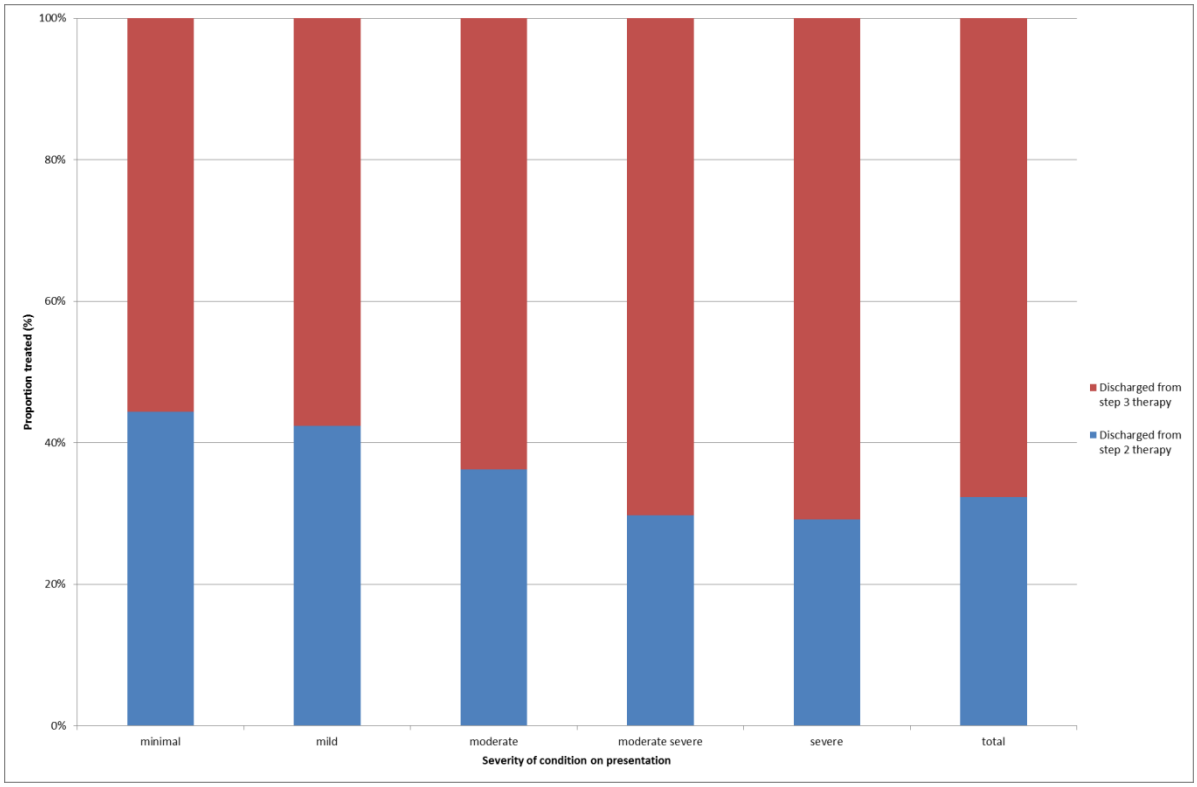
5.2.1 Step of treatment by severity of condition

On establishment of the IAPT services, it was estimated that two-thirds of service-users would need low-intensity treatment at step 2, with the remainder needing higher intensity treatment at step 3.[xxvii] However, a review of the progress made by sites in the first year of IAPT roll out in England showed that services differed greatly in the proportion of sessions delivered by low-intensity workers and high-intensity therapists. Overall, 47.9% of individuals received low intensity support, and 52.1% high intensity.[vii] Logistic regression highlighted a number of factors that increased the likelihood of an individual receiving high intensity treatment including having more severe anxiety and depression on assessment.

Within Derbyshire, the proportion of service-users who were discharged from high intensity therapy was higher than these national estimates (67.7%). The most appropriate treatment should be agreed between the service user and therapist, and a number of factors other than severity of condition may be considered in reaching a decision. Local data suggests that a higher proportion of service-users than would be expected are receiving high intensity therapy. However, the severity profile of Derbyshire service-users is also skewed towards more severe disease on assessment (with 70.1% having moderately severe or severe disease).

The proportion of service-users within each category of disease severity that received high-intensity therapy increases as the severity of condition on assessment increases (figure 30). However, the majority of service users with minimal or mild disease severity received high intensity treatment. From the data provided, it is not possible to determine the proportion of these groups that received step 2 therapy initially, before being stepped up. However, the data does highlight that 51.4% of individuals with minimal disease severity, and 44.3% of individuals with mild disease severity on assessment received step 3 therapy only.

Figure 30: Proportion discharged from Step 2 or Step 3, by severity of treatment



5.2.2 Analysis of individuals not meeting caseness

NICE recommend that low-intensity therapy is suitable for individuals with "persistent sub-threshold depressive symptoms", and that individuals with persistent sub-threshold depressive symptoms who have not responded to a low-intensity intervention, should be offered antidepressant medication **or** a high intensity psychological intervention.[i] There were 991 service-users (7.8%) who did not meet the definition of "caseness" on assessment, but went on to receive treatment. As these service-users did not score over the threshold for caseness on assessment, they subsequently cannot achieve recovery.

Of the service-users that did not meet the definition of caseness, 24.5% (n=243) received low intensity treatment, 35.3% (n=350) received high-intensity treatment, with the remainder (40.2%, n=398) receiving an assessment session only. The total cost of this cohort was £212,762, with service-users receiving high-intensity therapy contributing the highest spend (£162,688). The average number of sessions attended by this cohort was 3.14. Excluding those that received an assessment only, the average number of sessions attended was 4.70 (3.31 for service-users receiving low intensity treatment and 5.74 for those receiving high intensity therapy). Excluding those that received an assessment only, the mean improvement on the PHQ9 scale was 1.50 (1.63 for service-users receiving low intensity therapy and 1.40 for those receiving high –intensity therapy), and was 0.89 on the GAD7 scale (0.73 for service-users receiving low intensity therapy and 1.02 for those receiving high intensity therapy).

Inclusion of individuals who do not meet caseness within the dataset will not impact directly on the Key Performance Indicators of access to treatment and recovery rates. Despite not contributing towards the denominator, this cohort contributes towards the numerator of the 15% access target. In addition, these individuals are excluded when calculating the recovery rates for services. However, the consequences of including this cohort within IAPT services will include:

- an increase in waiting times for individuals who meet the definition of caseness
- costs incurred by commissioners
- inappropriate referrals by professionals of high-frequency service-users for whom IAPT may not be the most appropriate intervention

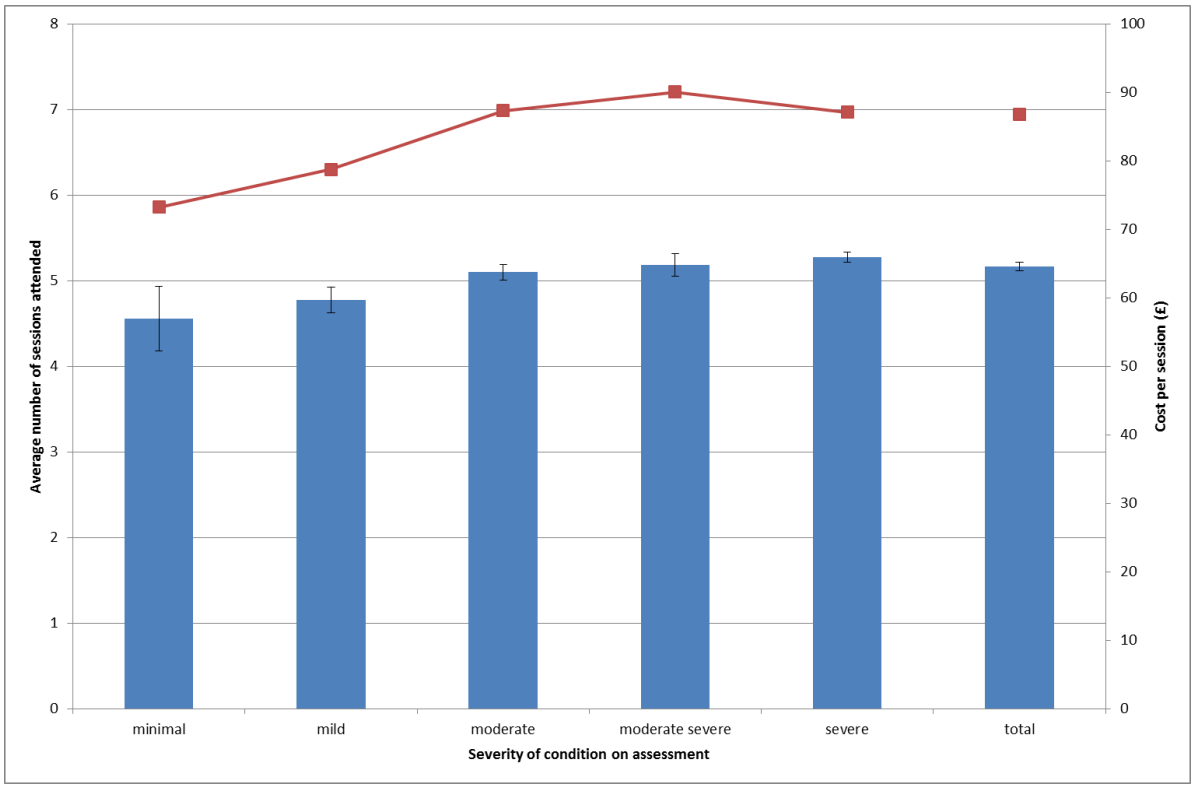
5.2.3 Cost per sessions

NICE recommend that the number of sessions that an individual should receive will vary depending on the severity of their condition, and the intervention received. In general, individuals receiving low-intensity psychosocial interventions should receive 6 to 8 sessions over a period of up to 3 months, and individuals receiving high-intensity psychosocial interventions should receive 16 to 20 sessions over a period of up to 4 months.[xxvi]

Within Derbyshire, a total of 50,807 sessions were attended, 12,278 (24.2%) at low intensity and 38,529 (75.8%) at high intensity. The average number of sessions attended per service-user was 4.01. Excluding those that attended an assessment session only, the average number of sessions attended was 5.2. The average number of sessions attended increased with the severity of condition on assessment (figure 31). Service-users with minimal and mild conditions on assessment attended a significantly lower average number of sessions than those with more severe disease, but the absolute difference in the average number of sessions attended between those with minimal and those with severe disease was 0.71.

The average cost per session was £86.74. This varied from £73.23 for service-users with minimal severity of condition on assessment to £90.06 for service-users with a moderately severe condition on assessment. The differential between service users with milder condition and those with more severe condition was less than expected, and this will be linked to the fact that a higher than expected proportion of individuals with minimal and mild severity are discharged from high intensity therapy.

Figure 31: Average number of sessions attended and average cost per session, by severity of condition on assessment



The average number of sessions attended by individuals discharged from high intensity therapy was 1.75 times higher than individuals discharged from low intensity therapy (table 11). Due to the lower tariff price, it would be expected that the average cost per session for individuals discharged from low intensity therapy would be considerably lower. Table 11 highlights that the average cost per session for service-users who were discharged from high intensity therapy was 2.4 times higher than those who were discharged from low intensity treatment.

Table 12: Average number of sessions attended and average cost per session, by step of care at discharge

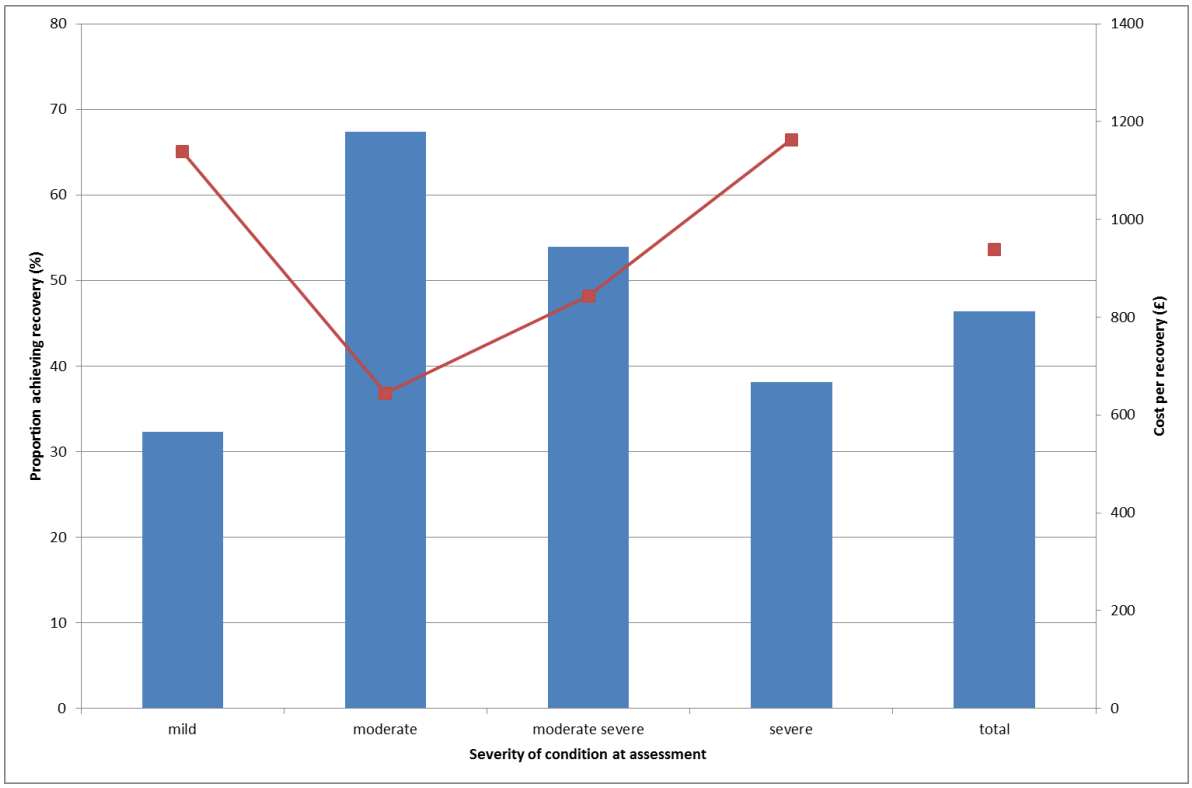
Step at discharge	Number of sessions attended	Average number of sessions attended	Average number of Step 2 sessions attended	Average number of step 3 sessions attended	Average cost per session (£)
Step 2	10,034	3.42	2.60	0.86	41.30
Step 3	36,804	6.00	0.39	5.59	99.13
Total	46,838	5.17	1.11	4.05	86.74

5.2.4 Cost per recovery

The average cost of recovery was £937.83. In general, the recovery rate decreased, and the cost per recovery increased as the severity of condition at assessment increased (figure 32). The exception to

this is the group of service-users with mild disease on assessment, with an average cost of recovery of £1,138.64. This cohort has the lowest recovery rate (32.3%) and a cost per recovery comparable to those with severe disease on assessment. However, 58.0% of those with mild disease on assessment did not meet the definition for caseness, and therefore cannot achieve recovery.

Figure 32: Recovery rate and average cost per recovery, by severity of condition on assessment



6 Evidence for effective interventions

In order to support the equity profiling, a literature review was undertaken to identify effective interventions to reduce the inequities observed. Due to the relatively recent roll-out of IAPT services across England, the search strategy for the literature review included more generic terms such as "talking therapies", as well as therapies delivered within IAPT services, such as counselling, behaviour therapy and self-help. The aim of the review was to identify interventions demonstrated to improved access to and/or outcomes from services, and did not review the effectiveness of the interventions in improving mental health outcomes in the population groups. The results are summarised here, with the full literature review available on request.

The Department of Health have also published a number of Promoting Positive Practice guidance documents for providers and commissioners of IAPT services. These target specific communities, including older adults, black and minority ethnic groups and individuals with learning disabilities.[xxviii]

Improving the inequity experienced by one population group will also impact on other inequity experienced by other population characteristics. For example improving access amongst older people will also increase access by people with a long term condition due to the high level of long term conditions experienced in this population group.

Ethnicity

There is good evidence that ensuring services are culturally responsive and language appropriate will improve access and outcomes amongst black and minority ethnic (BME) groups. There is limited evidence as to the differing effectiveness of individual cultural adaptations, but important themes identified include availability of interpretation services, including replacing technical terms with colloquial expressions, therapist-patient matching and the cultural competence of therapists. Community engagement to promote mental health awareness and knowledge of IAPT services have also been used to increase access to services, particularly in areas where a high proportion of the population is from a black and minority ethnic community. The use of mental health link workers in primary care has been shown to increase referrals from BME groups.

There is a greater stigma associated with mental health conditions in some BME communities, and therefore services should be located in venues that offer confidentiality for the service-user as to nature of the service they are accessing.

It has also been shown that self-referral into services produces a more equitable pattern of access amongst BME groups. Again, this needs to be facilitated alongside building links with local community and religious groups.

Older adults

The Positive Practice Guide highlights that a lack of appropriate assessment, diagnosis and management remains a barrier for older people accessing mental health services. Depression in older people may exist alongside physical illness or dementia, and may therefore mask the clinical presentation. Discrimination by health professionals, as well as the view of some older people that low mood is part of the aging process or as a consequence of a long term condition, may also be barriers to accessing services.[xxix]

There is also evidence to suggest that community based outreach services for older adults would increase access. This includes case finding and treatment in appropriate community settings, however, routinely administered case finding is not effective unless accompanied by structured treatment.

The links between mental health and physical health in older adults are complex, and IAPT services must be flexible in recognising and responding appropriately to these needs.

Disabilities and long term conditions

There is strong evidence to suggest that psychological therapies are effective at managing mental health conditions in individuals with long term conditions and disabilities. Despite rates of common mental health problems being higher amongst individuals with a long term condition or disability, the focus of health professionals is often solely on the physical issues, and therefore the symptoms of mental illness may not be recognised.

GPs have a key role to play in supporting individuals with a long term condition and associated mental illness to access IAPT services, through introducing the availability and effectiveness of psychological therapies. Embedding provision of psychological therapy within the physical healthcare setting may also facilitate increased access.

Deprivation

Establishing a self-referral route into IAPT services, and then widely promoting the service through social media, leaflets, posters, in the local media and through direct contact with community groups and third sector organisations has been shown to increase referrals across a London Borough. Of particular interest, the intervention increased referrals across the most deprived areas of the borough.[xxx]

7 Summary and Recommendations

Health Equity Audits are able to identify population groups that experience inequities in service uptake and outcomes, after adjusting for differences in the levels of need between groups. This HEA has highlighted a number of population groups within Derbyshire that currently experience inequities in access to and outcomes from the IAPT services in Derbyshire. Use of this information by commissioners, providers and other stakeholders should reduce inequities in service provision in the future.

Data completeness

There was variation in the completeness of data recording. Sexual orientation and disability status were particularly poorly recorded, but there was also in excess of one fifth of individuals with their long-term condition status missing, and a similar figure in Derbyshire County had no ethnicity recorded. A review of data completeness during August 2014 highlighted that there are still some characteristics where recording is less than 90% complete: sexual orientation – 8% recorded; employment status – 72% completed; ethnicity – 78% recorded.

The Glossop locality, which has a different provider to the rest of the county, appears to have a very low uptake of services, but high recovery rates. It has not been possible to confirm the quality and completeness of the data provided for the Glossop area and therefore no comparisons should be made between access to and outcomes from IAPT services in Glossop and services in the rest of Derbyshire.

Attrition through the service pathway

Approximately one quarter of individuals referred to the service do not receive an initial assessment, and 40% of those that are referred only receive an assessment session only. Similar attrition rates have been reported by other IAPT services,[xxv, xxxi]. High numbers of referrals that do not go on to access therapy will increase costs to commissioners, and also increase pressure on providers, which may impact on waiting times and other quality indicators. Analysing the demographic characteristics of individuals who do not receive therapy, and investigating the reasons behind the attrition will enable providers and commissioners to better tailor services to meet the needs of the whole population.

Inequities in access

There is geographic variation in access to services across Derbyshire. At a district level, the more rural districts of Amber Valley, Derbyshire Dales, High Peak (excluding Glossop), North East Derbyshire and South Derbyshire have the highest rates of uptake. However, within these districts there are wards and areas with very low access to services, and similarly, in the other districts there are wards with high and low access rates. Targeted promotion of services in communities with low current access rates will reduce this inequity.

GPs are responsible for the majority of referrals to IAPT services made by health professionals, and there is considerable variation in equitable access by practices. Some of this may be due to availability of other support services, however a number of practices with higher levels of socio-

economic deprivation have been identified as having low access rates. These practices should be targeted to improve case-finding and onward referral to services.

There are a number of population groups that currently experience lower rates of access, including older adults, Asian and Black ethnic groups, and individuals with a long term condition. Removing barriers to access amongst these groups will require similar strategies, as outlined by the Promoting Positive Practice guides, and supported by the literature review:

- addressing the views, behaviours and attitudes of individuals within the groups
- working with health professionals to encourage access amongst these population groups
- engagement with communities to promote availability of the service, but also to ensure that services are meeting the needs of the community. Examples may include ensuring the cultural appropriateness of services, working with carers or care home staff to identify older adults at risk of mental illness and supporting referrals, and integration of IAPT services into existing care structures
- training and developing the IAPT workforce to ensure that as well as meeting the required standard competencies, local therapists are aware of the needs of the local population, especially with reference to the population groups currently experiencing inequities

Inequities in outcomes

There are also a number of population groups identified to have lower recovery rates, including younger adults, individuals from the most deprived communities, individuals with a disability or long term condition, and unemployed individuals. These factors should be considered by therapists when determining the needs of an individual, for example it may be that individuals in these groups may require more frequent, or a higher number of sessions.

Factors promoting recovery

Individuals with more severe disease on assessment appear to have a greater clinical improvement, but lower recovery rates, than individuals with a milder condition. The lower recovery rates are due in part to the definition of recovery adopted by the IAPT services, requiring individuals to reach a threshold to be classified as recovered. In addition, the difference in the average number of sessions individuals with differing severity of conditions attend is minimal. This suggests that individuals with more severe disease may benefit from attending a higher number of sessions, and that this may increase recovery rates. Currently, only a minority of individuals are receiving the number of sessions as recommended by NICE guidelines.

Tariff considerations

The majority of spend is on individuals discharged from high intensity therapy. As the majority of individuals have severe depression or anxiety on assessment, it does not appear that providers are "cherry-picking" only individuals with mild conditions. However, the majority of individuals with a minimal or mild condition on assessment are discharged from high intensity therapy. The differential in tariff between low intensity and high intensity therapy may, therefore, be encouraging providers to treat individuals with high intensity therapy, without considering whether they may benefit from low intensity therapy initially. Modelling will assist in understanding the potential

impact on spend and outcomes of increasing the re-imbursement for low intensity therapy. In addition, an expansion of the Payment by Results model offers opportunities for commissioners to incentivise access of certain population groups.

Recommendations

It is recommended that commissioners, providers and Public Health work together to address the inequities highlighted within this report. Consideration should be given as to the group that is best placed to take ownership of implementing the findings of the equity audit. In addition, it is recommended that the results are shared with key decision-making groups and stakeholders across Derbyshire to identify the actions they can undertake to reduce the current inequities identified.

There are a number of actions that can be quickly implemented to reduce inequities in current service provision:

- providers should ensure that therapists improve recording of demographic indicators
- GP practices with low-referral rates should receive support from commissioners and providers to increase the numbers of referrals through improved case-finding and onward referral. This could include sharing of good practice from those practices that have high rates of access, with good outcomes.
- IAPT services should be promoted amongst communities that currently have inequitable rates of access. This should include promotion amongst front-line staff working in those communities, to enable case-finding and referral to services. Promotion of the self-referral pathway within these communities should increase access.
- links should be made with other health improvement programmes, for example the Wellbeing Service commissioned by Public Health, to enable brief screening and cross-referrals between programmes
- the IAPT service should provide additional support to individuals in groups that have lower recovery rates, for example by considering additional support
- modelling should be undertaken to explore the impact potential changes to the tariff structure may have on overall expenditure and outcomes

Longer term actions include:

- profile the characteristics of individuals who are referred to IAPT services but do not receive an assessment, and those that receive an assessment only to better understand which population groups do not attend once referred. This could be done in conjunction with research to understand the reasons why a large proportion of those referred do not take up treatment.
- undertake research to better understand why there is low referral rates to IAPT services amongst certain population groups, for example older people

- the IAPT service should ensure that it provides appropriate services for all population groups, for example ensuring that all staff are aware of the needs of the local population, receive appropriate training, and that the workforce reflects the profile of the population
- encourage providers to ensure NICE recommendations are implemented
- the national direction of moving towards Payment by Results tariffs should allow incentives to be paid for providers to reduce inequities experienced at a local level (for example, a worked example available on the IAPT website highlights opportunities for incentivising providers to ensure equity of access for individuals from BME groups, and older adults[xxxii])

Appendix 1: Additional data tables

Table 1: Wards with equity of access scores significantly different to district score

District	Equity of access score	Significantly higher equity of access score	Significantly lower equity of access score
Derby City	15.1	Sinfin Mackworth Derwent Alvaston	Blagreaves Littleover Mickleover
Amber Valley	19.2	Belper East Belper Central Kilburn, Denby and Holbrook Somercotes Heanor West	Ironville and Ridings South West Parishes Heage and Ambergate Wingfield Alport Duffield
Bolsover	16.5	Bolsover North West Bolsover West Bolsover South	Pleasley Whitwell
Chesterfield	16.5	Holmebrook Loundsley Green	Brimington South Walton West
Derbyshire Dales	20.9	Tideswell Matlock All Saints Matlock St Giles	Hartington and Taddington Brailsford Clifton and Bradley Norbury Doveridge and Sudbury
Erewash	15.7	Old Park Hallam Fields Ilkeston Central	Sandiacre South Stanley Sandiacre North
High Peak	14.0	New Mills East Barms Hope Valley Cote Heath Stone Bench Chapel East Buxton Central Corbar Chapel West Blackbrook	Howard Town Padfield Whitfield Hadfield North Gamesley Tintwistle Old Glossop Hadfield South Simmondley Dinting St John's
North East Derbyshire	19.8	Eckington North Killamarsh East	Gosforth Valley Barlow and Holmesfield Coal Aston Brampton and Walton
South Derbyshire	18.8	Church Gresley Newhall and Stanton Midway	Repton Stenson Seales Hatton

Table 2: GP practices with equity of access scores significantly different to CCG score

CCG	Equity of access score	Significantly higher equity of access score	Significantly lower equity of access score
Tameside and Glossop (Glossop practices only)	4.0		
Erewash	18.1		C81026
Hardwick	17.4	C81056 C81658	C81011 C81033 C81096 C81647
North Derbyshire	19.1	C81034 C81041 C81044 C81045 C81076 C81084 C81092 C81101 C81116	C81067 C81070 C81089 C81611 C81662
Southern Derbyshire	15.5	C81017 C81027 C81031 C81032 C81037 C81038 C81049 C81059 C81073 C81110 C81114 C81665 Y01812	C81035 C81040 C81042 C81051 C81054 C81072 C81075 C81086 C81094 C81104 C81113 C81118 C81616 C81629

Table 3: Disability recording by district

District	Completeness of disability recording (%)	Number with a disability (%)
Derby City	18.3	629 (74.3)
Amber Valley	73.9	127 (7.7)
Bolsover	47.1	147 (25.0)
Chesterfield	39.9	216 (25.7)
Derbyshire Dales	61.8	86 (10.7)
Erewash	66.9	135 (9.8)
High Peak	53.5	96 (13.6)
North East Derbyshire	36.7	181 (26.9)
South Derbyshire	46.9	160 (21.4)

Table 4: Long term condition recording by district

District	Completeness of LTC recording (%)	Number with a long term condition (%)
Derby City	74.2	907 (26.4)
Amber Valley	80.7	224 (12.4)
Bolsover	84.4	211 (20.1)
Chesterfield	86.4	342 (18.8)
Derbyshire Dales	70.5	120 (13.1)
Erewash	76.9	215 (13.6)
High Peak	80.8	178 (16.7)
North East Derbyshire	86.1	258 (16.4)
South Derbyshire	67.8	213 (19.7)

References

[i] NICE (2011) *Clinical guidance 123: Common mental health problems – identification and pathways to care*

[ii] Department of Health (2003) *Health Equity Audit: A guide for the NHS*

[iii] McManus, S.et al (2009) *Adult Psychiatric Morbidity in England, 2007: Results of a household survey*

[iv] Department of Health (2009) *Flourishing People, Connected Communities: A framework for developing wellbeing*

[v] Clark, D. et al (2009): Improving access to psychological therapy: Initial evaluation of two UK demonstration sites *Behaviour Research and Therapy* 47:910-920

[vi] Royal College of Psychiatrists (2008) *College Report 151: Psychological therapies in psychiatry and primary care*

[vii] Glover, G. et al (2010) *Improving Access to Psychological Therapies: A review of the progress made by sites in the first rollout year*

[viii] Prina, M. et al (2014) Improving access to psychological therapies and older people: Findings from the Eastern Region *Behaviour Research and Therapy* 56:75-81

[ix] Di Bona, L. et al (2014) Predictors of patient non-attendance at Improving Access to Psychological Therapy services demonstration sites *Journal of Affective Disorders* 169:157-164

[x] Brown, J. et al (2014) How equitable are psychological therapy services in South East London now? A comparison of referral to a new psychological therapy service with participants in a psychiatric morbidity survey in the same London borough *Social Psychiatry and Psychiatric Epidemiology* 49:1893-1902

[xi] Health Development Agency (2005) *Clarifying approaches to: health needs assessment, health impact assessment, integrated impact assessment, health equity audit, and race equality impact assessment*

[xii] Department of Health (2011) *The IAPT data handbook, June 2011*

[xiii] NHS England (2014) *IAPT: Measuring improvement and recovery adult services: version 2*

[xiv] Glover, G. (2008) *Estimating the prevalence of common mental health problems in PCTs in England: A first approximation of the expected caseload for new psychological therapy services*, North East Public Health Observatory

[xv] http://www.hscic.gov.uk/catalogue/PUB14899, accessed January 2015

[xvi] Mental Health Observatory (2008) *Estimating the prevalence of common mental health problems in PCTs in England: A first approximation of the expected caseload for new psychological therapy services*

[xvii] Kvam, M. and Loeb, M. (2007) Mental health in deaf adults: Symptoms of anxiety and depression among hearing and deaf adults *Journal of Deaf Studies and Deaf Education* 12(1): 1-7

[xviii] Bosanquet, N. and Mehta, P. (2008) *Evidence-base to support the UK Vision Strategy*

[xix] Naylor, C. et al (2012) *Long-term conditions and mental health: The cost of co-morbidities* The Kings Fund and Centre for Mental Health

[xx] Stavrakaki, C. (1999) Depression, anxiety and adjustment disorders in people with developmental disabilities In *Psychiatric and Behavioural Disorders in Developmental Disabilities and Mental Retardation* (pp175-187) Cambridge University Press, Cambridge

[xxi] Collacott, R. et al (1998) Behaviour phenotype for Down's syndrome *British Journal of Psychiatry* 172: 85-89

[xxii] Gale, L. et al (2008) *The Health of Adults with Learning Difficulties in Bristol* Bristol Public Health Department

[xxiii] Department of Health (2011) *No Health without mental health*

[xxiv] King, M. et al (2008) A systematic review of mental disorder, suicide, and deliberate self-harm in lesbian, gay and bisexual people *BMC Psychiatry* 8:70 doi:10.1186/1471-244X-8-70

[xxv] Gyani, A. et al (2010) *Enhancing recovery rates in IAPT services: Lessons from analysis of the Year One data*

[xxvi] NICE (2009) *Clinical guideline 90: Depression in adults. The treatment and management of depression in adults*

[xxvii] Department of Health (2011) *Talking therapies: a four year plan of action*

[xxviii] Available at http://www.iapt.nhs.uk/commissioning/positive-practice-guides/

[xxix] Department of Health (2009) *Older people: Positive Practice Guide*

[xxx] Green, S. et al (2012) Mapping mental health service access: achieving equity through quality improvement *Journal of Public Health* 35(2):286-292

[xxxi] Richards, D. and Borglin, G. (2011) Implementation of psychological therapies for anxiety and depression n routine practice: Two year prospective cohort study *Journal of Affective Disorders* 133:51-60

[xxxii] http://www.iapt.nhs.uk/silo/files/iapt-pbr-currency-model.pdf accessed January 2015