

## **CHES Health Economics Analysis Full Report**

### **Overview**

A prospective within-trial economic evaluation was conducted to estimate the cost-effectiveness of the CHES intervention compared with usual care alone for people living with chronic headaches. Costs are expressed in British pounds sterling valued at 2019 prices and health outcomes are expressed in terms of quality-adjusted life-years (QALYs). The base-case analysis used the intention-to-treat trial data covering the 12-month period from randomisation and was conducted from the perspective of the UK National Health Service and Personal Social Services (PSS) (NICE, 2013). Costs and outcomes were not discounted due to the one-year time horizon. Sensitivity analyses explored likely impact of alternative data inputs (e.g. adopting a broader societal perspective) and assumptions on cost-effectiveness outcomes. Subgroup analyses were conducted to estimate heterogeneity in cost-effectiveness results. The methods adhered to a pre-specified health economics analysis plan approved by the CHES Steering Committee. Findings are reported in accordance with the Consolidated Health Economic Evaluation Reporting Standards (CHEERS) guidelines (Husereau et al., 2013).

## **METHODS**

### **Measurement and valuation of resource use**

The estimation of economic costs required estimates of resource inputs associated with the intervention and broader utilisation of hospital and community-based health and social care services. Resource inputs were then weighted by values reflecting the opportunity costs, or 'prices', for each respective input (unit cost).

### **Intervention costing**

We did a micro-costing exercise to estimate the resource use associated with delivery of the CHES intervention. Staff were asked to prospectively provide the number of hours it took them to deliver the group intervention, plus the one-to-one sessions, the follow-up telephone calls, including any administration time, as well as intervention-related training activities. We obtained hourly costs of staff time for delivery of the intervention from the Unit Costs of Health and Social Care for 2019 (Curtis and Burns, 2019); see Table 1. We estimated cost of venue hire based on the average costs for venues for which there was a charge. We have allowed for staff travel costs based on a car rate of 45pence/mile (<https://www.gov.uk/government/publications/rates-and-allowances-travel-mileage-and-fuel-allowances/travel-mileage-and-fuel-rates-and-allowances>). The cost of CDs and

DVDs was based on preparation cost for the discs; i.e. we did not include cost of developing the content. We allowed for depreciation on equipment (phones, laptops, projectors) over 5-10 years. Other equipment costs were included as the total cost.

### **Hospital and community-based health and social care service use**

Utilisation of hospital and community-based health and social care services covering the 12 month period from randomisation were collected for trial participants through two principal means:

- Data extracted from primary care electronic record systems held at GP surgeries. This provided a detailed profile of utilisation of primary care (consultations, prescriptions, tests and investigations) and hospital-based services (emergency department attendances, inpatient admissions including length of stay, hospital day-case attendances and outpatient services).
- Economic questionnaires completed by trial participants at baseline, 4, 8 and 12 months' post-randomisation assessment points. These provided participant self-reports of primary and secondary care health and social care service use, private medical expenses (including over the counter medications), additional costs borne by participants (childcare costs, travel costs to attend headache related medical appointments) and productivity related costs (time-off work and income lost by participants and their partners as a result of headache-related illness).

Costs based on resource use extracted from the GP records acted as the primary source of cost data for the within-trial economic evaluation. Costs estimated from resource use collected through the patient reported questionnaires acted as a secondary source of information on utilisation of health and social care services. The latter data were used in the economic evaluation for trial participants for whom data from the electronic GP records were unavailable. Private healthcare utilisation (including over the counter medication use), out-of-pocket expenses and travel costs borne by participants and their relatives, time-off work due to illness, lost income and use of community social care services) were only available from the participant reported data.

Unit costs expressed in British pounds sterling for the 2019 price year were applied to each resource item to value total resource use in each arm of the trial. These are summarised in Table 2. The unit costs of community health and social services were derived from latest Unit Costs of Health and Social Care 2019 compendium published by the Personal Social Services Research Unit (PSSRU) (Curtis and Burns, 2019), the prescription cost analysis 2019 Tables (NHS Digital, 2019), national

reference costs 2019 tables, and the online version of the British National Formulary (BNF) 2019 version (Joint Formulary Committee, 2019). These sources of unit cost data were supplemented by information obtained from published literature and online sources. The primary analysis concentrated on direct intervention and broader healthcare/PSS costs, whilst wider impact (societal) costs were considered as part of the sensitivity analyses.

Table 1: Unit costs of health and social care services (2019 prices)

Service	Unit	unit cost (in £)	Source
<b>Primary care</b>			
General practitioner	Contact (10 minutes)	39	PSSRU Unit Costs 2019 (Curtis and Burns , 2019)
Pharmacist	Contact (1 hour)	45	PSSRU Unit Costs 2019 (Curtis and Burns , 2019)
Physiotherapist	Contact (1 hour)	45	PSSRU Unit Costs 2019 (Curtis and Burns , 2019)
Hypnotherapist	Contact (1 hour)	45	PSSRU Unit Costs 2019 (Curtis and Burns , 2019)
Practice nurse/band 6 nurse	Contact (1 hour)	46	PSSRU Unit Costs 2019 (Curtis and Burns , 2019)
Occupational therapist	Contact (1 hour)	45	PSSRU Unit Costs 2019 (Curtis and Burns , 2019)
<b>Admitted care</b>			
Acute medical admission	care episode	589	2019 reference costs (NES, 1 day) (NHS Digital (b))
Lumber puncture	care episode	225 9	2019 reference costs (AA31, NEL, 9 days) (NHS Digital (b))
Greater occipital nerve block injections	care episode	753	2019 reference costs (AB16Z, 9 days) (NHS Digital (b))
Emergency department	visit	116	2019 reference costs, VB09Z (NHS Digital (b))
<b>Hospital outpatients</b>			
Acupuncture	contact	35	British Acupuncture Council estimates £35 - £50 per hour (British Acupuncture Council, 2019)
City of London Med Centre	contact	175	Harley Street - 30 minutes, online ( <a href="https://walkin-clinic.co.uk/pricing">https://walkin-clinic.co.uk/pricing</a> )
Ear nose and throat (ENT)	contact	107	2019 reference costs (NHS Digital (b))
Harley Street Med Centre	contact	175	Harley Street - 30 minutes ( <a href="https://walkin-clinic.co.uk/pricing">https://walkin-clinic.co.uk/pricing</a> )
Integrated Medicine	contact	167	2019 reference costs (NHS Digital (b))
Ophthalmology	contact	98	2019 reference costs (NHS Digital (b))
Orthopaedics	contact	120	2019 reference costs (NHS Digital (b))
Rheumatology	contact	147	2019 reference costs (NHS Digital (b))
Stroke	contact	197	2019 reference costs (NHS Digital (b))
Urology	contact	108	2019 reference costs (NHS Digital (b))
Botox injection	contact	349	TA260 (2012 prices, updated to 2019 prices) (NICE, 2012)
Outpatients (pain management / neurology)	contact	177	2019 reference costs (NHS Digital (b))

## **Outcomes**

The primary health outcome in this within-trial economic evaluation is the quality-adjusted life year (QALY) in line with the NICE reference case (NICE, 2013). The QALY is a measure of health benefit that combines quantity and health-related quality of life lived into a single metric. One QALY notionally equates to one year of full health. QALY estimates were generated from combining length and health-related quality of life outcomes using area-under-the-curve approaches (Glick et al., 2014) Information on survival was estimated over the 12 months' duration of study follow-up. Health-related quality of life outcomes were collected for trial participants (see details below) and converted into health utilities indexed at 0 and 1 where 0 represents death and 1 represents full health.

Participants were asked to complete the EuroQoL EQ-5D-5L (Herdman et al., 2011) and SF-12 (Ware, 2002) measures using postal questionnaire at baseline and during follow-up at the 4, 8- and 12-months post-randomisation assessment points. Responses to the EQ-5D-5L and SF-12 measures were converted into multi-attribute utility scores using established algorithms (Brazier et al., 2002) from which were generated. The EQ-5D is a generic preference based 5-dimensional multi-attribute instrument for measuring health-related quality of life. Currently, there are two versions of the questionnaire: a 3-level version (EQ-5D-3L) first introduced in 1990 by the EuroQoL Group (EuroQoL Group, 1990) and a newer 5-level version (EQ-5D-5L) introduced in 2009 (Herman et al., 2011) Patients in the CHES trial completed the 5L version of the questionnaire. The 5L responses were converted into health utilities based on the UK tariff for the EQ-5D-3L descriptive system (Kind et al., 1998) using the van Hout and Hernandez-Alarva crosswalk algorithms in line with current NICE recommendations (van Hout et al., 2012, Hernandez-Alava and Pudney, 2018). The base-case analysis used EQ-5D-5L QALYs generated from the van Hout crosswalk method. Sensitivity analyses were conducted using EQ-5D-5L QALYs based on utilities generated from Hernandez-Alava method (Hernandez-Alava and Pudney, 2018); and SF-6D QALYs generated from the SF-12 using the algorithm of Brazier and colleagues (Brazier et al., 2002).

## **Statistical Methods**

### *Summary of resource use and costs*

Patient-level costs were generated for each resource variable by multiplying the quantity reported with the respective unit cost, weighted by length of stay or duration of contact where appropriate. Summary statistics (means, standard errors and completion rates) were generated stratified by

intervention arm and assessment point. Between-treatment group differences for mean resource use and mean costs at each assessment point were compared using the two-sample t-test. Statistical significance was assessed at the 5% significance level. Non-parametric bootstrapping was implemented, generating 2,000 replications of the data. Estimates of standard errors surrounding mean resource use (or cost) estimates and 95% confidence intervals surrounding between-group differences for mean resource use (or costs) were obtained from the bootstrapped samples.

#### *Summary of health-related quality of life data*

Responses to each health dimension of the EQ-5D-5L and SF-12 are presented by level of function. Comparisons of responses are conducted on the basis of optimal level of function (for example “no problem” on the EQ-5D-5L) versus sub-optimal level of function (indicating any functional impairment). Between-group differences in optimal versus sub-optimal level of function for each health dimension were compared for each health-related quality of life measure using chi-squared tests. Summary statistics (means, standard errors and completeness rates) for health utilities were generated stratified by intervention arm, assessment point and health-related quality of life instrument. Estimates of between-group difference in mean health utility values and 95% bootstrap confidence intervals surrounding mean group differences were generated based on 2,000 bootstrapped resamples of the data.

#### *Missing data*

Multiple imputation by chain equations implemented through the R package MICE (Van Buuren and Groothuis-Oudshoorn, 2011) was used to predict values for any missing items, assuming data were missing at random. Missing costs and health utility values were imputed at the level of resource category and health-related quality of life assessment, stratified by intervention arm in accordance with good practice recommendations (Faria et al., 2014). Imputation was achieved using predictive mean matching, which has the advantage of preserving non-linear relationships and correlations between variables within the data. Fifty imputed datasets were generated and used to inform the base-case and subsequent sensitivity and subgroup analyses. Parameter estimates were pooled across the 50 imputed datasets using Rubin’s rules to account for between and within-imputation components of variance terms associated with parameter estimates.

#### *Base-case cost-effectiveness*

The base-case cost-effectiveness analysis uses the intention-to-treat data to estimate the cost-effectiveness of the CHES intervention compared with usual care from the perspective of the UK NHS and PSS. Economic costs and QALYs were calculated for each patient over a 12-month post-randomisation time period. Total costs were calculated by summing costs associated with the delivery of the intervention (we assigned £0.40 to the usual care arm representing the cost of a relaxation CD) and costs of broader hospital and community-based health and social care services.

Bivariate generalised linear mixed-effects regressions assuming a Gamma distributed error structure and logarithmic link function were fitted to imputed data in R using methods we have recently developed for cost-effectiveness analyses of cluster randomised and multicentre trial data (Achara et al., in press). The models account for the within-cluster and between-cluster correlation between skewed costs and effects data measured from the same individuals. We controlled for intervention arm, age, gender, headache type, baseline costs (in the cost equation) and baseline utilities (in the QALY equation).

The incremental cost-effectiveness ratio (ICER) was calculated for the CHES intervention compared with usual care by dividing the between-group difference in adjusted mean total costs by the between-group difference in adjusted mean QALYs. Cost-effectiveness was assessed by comparing the ICER to cost-effectiveness thresholds between £15,000 and £30,000 per QALY gained in line with NICE guidance (NICE, 2013) and the recent empirical threshold of £13,000 per QALY estimate suggested by Claxton and colleagues (Claxton et al., 2015). The incremental net (monetary) benefit of the intervention compared with usual care was calculated for cost-effectiveness thresholds at £15,000, £20,000 and £30,000 per QALY gained. Net monetary benefit values reflect the opportunity cost of (or the benefits forgone) from adopting a new treatment when resources could be put to use elsewhere. A positive net monetary benefit would suggest that, on average, the CHES intervention provides a net gain compared to usual care for the NHS and PSS and can be considered cost-effective at the given cost-effectiveness threshold.

Uncertainty around the mean cost-effectiveness estimates was characterised through a Monte Carlo method (Glick et al, 2014) This involved simulating 2,000 replicates of the ICER from a joint distribution of the incremental costs and QALYs and plotting the simulated ICERs on the cost-effectiveness plane. Cost-effectiveness acceptability curves were also plotted to give graphical display of the probability that the CHES intervention is cost-effective across a wide range of cost-effectiveness thresholds.

### **Sensitivity analyses**

The following sensitivity analyses were conducted to investigate sensitivity of the base-case results to:

- QALYs generated from EQ-5D-5L utilities using the alternative Hernandez-Alava and Putney crosswalk function (Hernandez-Alava and Pudney, 2018).
- Utilities generated via the SF-6D UK tariff based on SF-12 responses (Brazier et al., 2002).
- Total costs estimated from a societal perspective
- Unadjusted analysis of the multiple imputation data
- Adjusted complete case analysis.

### **Subgroup analyses**

Estimates of incremental cost-effectiveness were also calculated for the following pre-specified subgroups of patients: i) medication overuse (yes/no), ii) Location (London versus Midlands), iii) gender (male versus female) and iv) age group (<40 years versus ≥40 years).

## **RESULTS**

### **Study population**

Seven hundred and thirty-six participants were randomised into the CHES (380 to the CHES intervention and 356 to the usual care). Of these, 9 study participants with a tension-type headache were excluded leaving a total of 727 participants (376 in the intervention group and 351 in the usual care) for analysis. Resource use data were collected via the trial case report forms for all study participants (CRF data) and via general practice record (GP data) reporting primary and secondary care utilisation for 586 (data from GP records was available for 80.6% of the 727 participants).

#### *Costs of the intervention*

Table 2 displays intervention cost estimates from the micro-costing exercise stratified by intervention group and resource input. The intervention was delivered to 42 groups – 30 of these groups were in the Midlands and the remainder were in London. The number of participants in the groups ranged from 3 to 16 and the overall mean number of participants per group was 9.

*Staff time* - The average times for delivering day 1, day 2, the 1-2-1 sessions and the telephone follow-up sessions for the intervention by a nurse were 7.0, 7.0, 8.0 and 2.7 hours, respectively. The

average times for delivering day 1 or day 2 by an AHP were 6.8 and 6.7 hours, respectively. The total staffing costs ranged from £1,694 (COV002) to £2,772 (TOW001)

*Venue hire* - The intervention was delivered for 18 groups in community centres; for 15 groups in GP practices; and for 9 groups in healthcare/medical or walk-in centres. Only 17 groups provided the cost of venue hire and for all of these 17 groups the intervention was delivered in the community centres. The average cost of hiring the venue for the 17 groups that provided a cost was £310.62 (ranging from £170 to £600).

*Travel* – We assumed that the nurses would travel 30 miles and incur a cost of £13.50 and the AHPs would travel 20 miles and incur a cost of £9.00.

*Equipment and disposables* - The average cost per participant for the equipment and disposables was £3.38.

#### *Total costs*

Table 2 shows the estimates of the total costs of delivering the CHES intervention for each group. As noted earlier, the cost components are aggregated into four headings: staff costs, venue hire, travel costs, and equipment and disposables. The total costs varied between £2,209 (COV001) to £3,152 (TOW001).

*Table 2: Costs associated with delivery of intervention*

Area	Group	No of participants allocated to group	Staffing	Venue hire	Equipment and disposables	Travel	Total costs	Average cost per participant
Midlands	COV001	6	£1,855.41	£310.62	£20.29	£22.50	£2,208.82	£368.14
Midlands	KEN001	6	£2,400.41	£346.50	£20.29	£22.50	£2,789.70	£464.95
Midlands	WAR001	10	£2,132.49	£310.62	£33.81	£22.50	£2,499.42	£249.94
Midlands	WAR002	7	£2,031.24	£310.62	£23.67	£22.50	£2,388.03	£341.15
Midlands	BIR001	4	£1,944.41	£310.62	£13.52	£22.50	£2,291.06	£572.76
Midlands	STR001	9	£2,217.91	£310.62	£30.43	£22.50	£2,581.46	£286.83
Midlands	WAR003	9	£2,061.41	£310.62	£30.43	£22.50	£2,424.96	£269.44
Midlands	TUT001	11	£2,031.42	£238.00	£37.19	£22.50	£2,329.11	£211.74
Midlands	ABI001	11	£2,047.25	£310.62	£37.19	£22.50	£2,417.56	£219.78
Midlands	BIR002	8	£1,939.42	£420.00	£27.05	£22.50	£2,408.97	£301.12
Midlands	COV002	10	£1,694.41	£310.62	£33.81	£22.50	£2,061.34	£206.13



Midlands	TUT002	6	£2,047.25	£238.00	£20.29	£22.50	£2,328.03	£388.01
Midlands	WIT001	7	£2,047.25	£310.62	£23.67	£22.50	£2,404.04	£343.43
Midlands	WOR001	8	£1,893.42	£310.62	£27.05	£22.50	£2,253.59	£281.70
Midlands	BIR003	7	£1,986.24	£280.00	£23.67	£22.50	£2,312.41	£330.34
Midlands	NUN001	13	£2,301.24	£297.50	£43.96	£22.50	£2,665.19	£205.01
Midlands	WNT001	13	£2,047.25	£310.62	£43.96	£22.50	£2,424.33	£186.49
Midlands	WOR002	8	£1,899.41	£400.00	£27.05	£22.50	£2,348.96	£293.62
Midlands	COV003	7	£1,986.24	£310.62	£23.67	£22.50	£2,343.03	£334.72
Midlands	ABI002	11	£2,047.25	£245.00	£37.19	£22.50	£2,351.94	£213.81
Midlands	LIC001	14	£1,941.24	£310.62	£47.34	£22.50	£2,321.70	£165.84
Midlands	BED001	3	£1,941.24	£324.00	£10.14	£22.50	£2,297.88	£765.96
Midlands	NOT001	8	£1,986.24	£210.00	£27.05	£22.50	£2,245.79	£280.72
Midlands	MIL001	9	£2,047.25	£310.62	£30.43	£22.50	£2,410.80	£267.87
Midlands	LEI001	9	£1,992.41	£252.00	£30.43	£22.50	£2,297.34	£255.26
Midlands	LIC002	13	£2,031.24	£310.62	£43.96	£22.50	£2,408.32	£185.26
Midlands	WOR003	16	£2,243.41	£169.60	£54.10	£22.50	£2,489.61	£155.60
Midlands	SOL001	9	£1,975.01	£420.00	£30.43	£22.50	£2,447.94	£271.99
Midlands	HER001	6	£1,986.24	£210.00	£20.29	£22.50	£2,239.02	£373.17
Midlands	NOT002	8	£1,986.24	£210.00	£27.05	£22.50	£2,245.79	£280.72
London	BRO001	7	£2,165.77	£310.62	£23.67	£22.50	£2,522.56	£360.37
London	WAN001	8	£2,136.78	£310.62	£27.05	£22.50	£2,496.95	£312.12
London	CAM001	10	£2,219.94	£600.00	£33.81	£22.50	£2,876.25	£287.62
London	SOU001	7	£2,136.78	£310.62	£23.67	£22.50	£2,493.57	£356.22
London	NEW001	6	£2,079.94	£310.62	£20.29	£22.50	£2,433.35	£405.56
London	CAM002	11	£2,136.78	£420.00	£37.19	£22.50	£2,616.47	£237.86
London	SOU002	14	£2,136.78	£310.62	£47.34	£22.50	£2,517.24	£179.80
London	LAM001	14	£2,136.78	£310.62	£47.34	£22.50	£2,517.24	£179.80
London	SOU003	13	£2,136.78	£310.62	£43.96	£22.50	£2,513.86	£193.37
London	TOW001	14	£2,771.94	£310.62	£47.34	£22.50	£3,152.40	£225.17
London	HOU001	10	£2,255.77	£310.62	£33.81	£22.50	£2,622.70	£262.27
London	TOW002	6	£2,385.45	£310.62	£20.29	£22.50	£2,738.86	£456.48

### Summary of resource use and costs collected via GP records and the trial case report forms

Table S1 summarise NHS and PSS resource use values by intervention group, resource category and trial period for complete cases reported by study participants. Resource values are presented for subcategories of resource use, including hospital emergency department attendances, hospital inpatient and outpatient care, primary care (residential care, community health and social care) and prescribed medications. Health and social care service use data extracted from GP records are summarised in Table S2 stratified by intervention group. Broader societal resource inputs and costs

including privately purchased medications, travel costs, childcare, lost income, housework help and laundry service costs and presented in Table S3. No notable differences were observed between the intervention versus usual care groups across all categories of resource use extracted from the CRF data (Table S1) and the GP records data (Table S2). In terms of non-NHS and PSS resource use, encompassing expenditures incurred by patients, family members and lost income due to ill-health as a result of headache related illnesses for the intervention and usual care groups (Table S3), no significant differences were observed across all the assessment time periods.

#### **Costs estimated from resource use data collected via CRFs and GP records**

Health and social care costs based on the participant reported CRF data and disaggregated at the level of resource use variable, intervention group and assessment point are presented in Table S4. The equivalent cost summaries covering the 12 months' post-randomisation period based on the GP data are presented in Table S5. Non-NHS/PSS costs based on participant self-reports of broader societal resource inputs and costs such as privately purchased medications, travel, childcare, lost income, housework help and laundry service costs are presented in Table S6. No notable differences were observed between the intervention and usual care groups across all categories of economic costs based on data extracted from the CRF data and the GP records.

#### **Total NHS/PSS and total societal costs over 12 months of follow-up**

Total NHS/PSS cost estimates are based on resource use data extracted from GP records for 586 (81%) of the 727 study participants for whom we were able to extract data from GP records. We were unable to extract data from GP records for the remaining 141 (19%) of the 727 study participants and so, for these participants, NHS/PSS costs were estimated from the participant self-reports of resource use collected using the trial case-report forms. Non-NHS/PSS components of societal costs including productivity related costs (lost income and time-off work) and additional cost of illness borne by families were estimated from the CRF data for all study participants. Table 3 presents the total NHS/PSS and total societal cost estimates covering the 12 month period from randomisation for the whole trial population. Over the trial-follow-up period, total costs were on average higher for the intervention group than the usual care group. The unadjusted mean cost difference was £263 (bootstrap 95% CI £204 to £322, p-value <0.001) from an NHS/PSS perspective and £345 (bootstrap 95% CI -£344 to £1,357, p-value = 0.405) from a societal perspective. The

difference in costs between the two groups was driven by the higher cost of the group intervention which costs on average £266.55 (bootstrap 95% CI £257 to £277, p-value <0.001).

Table 3: Total NHS/PSS and total societal costs estimates from combining CRF and GP resource use data 2019 prices

Cost category	Number with complete cases		Mean (standard error) costs, £		Mean cost difference (95% CI)	P-value
	CHES intervention	Usual care	CHES intervention	Usual care		
Intervention	376	351	266.95 (4.79)	0.40 (0)	266.55 (257.46, 276.62)	<0.001
Primary care	356	312	268.25 (14.34)	285.48 (16.45)	-17.22 (-62.14, 24.55)	0.4105
Secondary care	358	318	71.82 (11.81)	52.83 (10.24)	18.99 (-11.25, 48.70)	0.216
Medications	376	351	7.21 (1.34)	12.06 (3.18)	-4.85 (-14.66, 0.20)	0.1495
Total NHS/PSS costs	356	312	614.88 (20.77)	351.85 (20.42)	263.03 (204.01, 321.51)	<0.001
Private medical expenses	356	312	16.60 (7.52)	14.34 (6.07)	2.26 (-15.30, 22.93)	0.81
Additional costs	280	250	91.96 (27.21)	47.89 (13.98)	44.07 (-6.59, 118.66)	0.149
Productivity costs	262	241	1164.14 (312.75)	1268.63 (316.25)	-104.49 (-927.51, 813.71)	0.821
Total Non-NHS/PSS costs	242	212	1226.42 (343.6)	1126.32 (256.39)	100.10 (-570.47, 1198.51)	0.815
Total societal costs	242	212	1779.90 (340.65)	1435.25 (260.52)	344.64 (-344.27, 1356.53)	0.405

## Health-related quality-of-life outcomes

The distribution of the responses to the EQ-5D-5L and SF-12 HRQoL questionnaires by trial group and trial period are presented in Table S7 and Table S8, respectively. The comparisons of responses were conducted on the basis of optimal level of function (for example “no problem” on the EQ-5D-5L) versus sub-optimal level of function (indicating any functional impairment). The only statistically significant differences in levels of function in HRQoL was observed in the anxiety and depression dimension of the EQ-5D-5L at the 12-month assessment point with lower levels of anxiety and depression in the CHES intervention arm ( $p=0.016$ ). There were no statistically significant differences in levels of function in HRQoL for participant reported dimensions of the EQ-5D-5L or SF-12 measures between the intervention and usual care groups for all other assessment points.

**Table 4** presents unadjusted health utility scores generated from the EQ-5D-5L using the van Hout crosswalk and Hernandez-Alava and Putney crosswalk algorithms and from the SF-6D (derived from SF-12) based on complete case analyses. On average, the intervention generated higher mean utility values than usual care at baseline and at the 4-, 8- and 12-months post-randomisation assessment points. The difference in mean utility generated from the EQ-5D-5L via the van Hout crosswalk was 0.052 (bootstrap 95% CI 0.005 to 0.096,  $p$ -value = 0.028) at 4 months and 0.051 (bootstrap 95% CI 0.007 to 0.093,  $p$ -value = 0.024) at the 8-month assessment point (with higher utility scores observed in the CHES intervention arm). Overall, the difference in mean utility was statistically significant at 4- and 8-months’ assessment points using the van Hout crosswalk to estimate EQ-5D-5L utilities. At 4 months using the Hernandez-Alava crosswalk to estimate EQ-5D-5L utilities and at baseline, 8 months and 12 months assessment points using the SF-6D algorithm to estimate utilities from the SF-12 version 2, differences in mean utility values were statistically significant.

*Table 4: Unadjusted health-related quality of life (utility) weights collected for trial participants*

Assessment point and utility measure	Intervention		Usual care		Mean difference (95% CI)	P-value
	N	Mean (SE)	N	Mean (SE)		
<i>EQ-5D-5L, Van Hout crosswalk</i>						
Baseline	372	0.637 (0.013)	346	0.624 (0.013)	0.014 (-0.023, 0.053)	0.488
4 months	274	0.682 (0.016)	276	0.630 (0.017)	0.052 (0.005, 0.096)	0.028
8 months	280	0.697 (0.014)	262	0.646 (0.017)	0.051 (0.007, 0.093)	0.024
12 months	301	0.694 (0.014)	283	0.663 (0.016)	0.031 (-0.01, 0.073)	0.168
<i>EQ-5D-5L, Hernandez-Alava crosswalk</i>						
Baseline	366	0.628 (0.013)	342	0.617 (0.013)	0.01 (-0.024, 0.048)	0.590

4 months	270	0.669 (0.016)	272	0.625 (0.016)	0.044 (-0.002, 0.089)	0.058
8 months	274	0.685 (0.014)	258	0.642 (0.016)	0.043 (0.002, 0.084)	0.036
12 months	295	0.684 (0.014)	278	0.658 (0.015)	0.026 (-0.014, 0.066)	0.218
<i>SF-6D</i>						
Baseline	357	0.614 (0.006)	340	0.596 (0.006)	0.018 (0.001, 0.036)	0.044
4 months	243	0.653 (0.008)	238	0.637 (0.009)	0.016 (-0.007, 0.042)	0.206
8 months	247	0.660 (0.008)	221	0.635 (0.009)	0.025 (0.002, 0.049)	0.044
12 months	260	0.672 (0.008)	230	0.638 (0.009)	0.035 (0.01, 0.059)	0.006

N = participants with complete data, SE = Standard error

**Table 5** presents unadjusted QALY estimates over the 12-month assessment period stratified by utility instrument, assessment period and intervention group based on complete case analysis. On average, the CHES intervention generated higher mean QALYs than usual care at each assessment point. Over the 12-months of follow-up, mean QALYs were on average 0.047 (bootstrap 95% CI 0.004 to 0.088, p-value = 0.028) higher using the van Hout EQ-5D-5L crosswalk measure, 0.041 (bootstrap 95% CI -0.001 to 0.082, p-value = 0.058) higher using the Hernandez-Alava and Putney EQ-5D-5L crosswalk measure and 0.031 (bootstrap 95% CI 0.008 to 0.055, p-value = 0.012) higher using the SF-6D algorithm based on the SF-12 instrument.

Table 5: Unadjusted QALY estimates derived from EQ-5D-5L and SF-12 data

Assessment point and utility measure	Intervention		Usual care		Mean difference (95% CI)	P-value
	N	Mean (SE)	N	Mean (SE)		
<i>EQ5D-5L, van Hout crosswalk</i>						
0-4 months	272	0.224 (0.005)	272	0.210 (0.005)	0.013 (0, 0.028)	0.062
4-8 months	241	0.230 (0.005)	238	0.217 (0.005)	0.013 (-0.001, 0.027)	0.072
8-12 months	258	0.233 (0.005)	248	0.218 (0.005)	0.015 (0.002, 0.029)	0.038
0-12 months	225	0.697 (0.015)	224	0.650 (0.016)	0.047 (0.004, 0.088)	0.028
<i>EQ5D-5L, Hernandez-Alava crosswalk</i>						
0-4 months	269	0.220 (0.005)	268	0.208 (0.005)	0.012 (-0.001, 0.025)	0.098
4-8 months	237	0.226 (0.005)	234	0.214 (0.005)	0.012 (-0.003, 0.026)	0.122
8-12 months	252	0.229 (0.004)	244	0.217 (0.005)	0.012 (0, 0.026)	0.072
0-12 months	222	0.685 (0.014)	220	0.644 (0.015)	0.041 (-0.001, 0.082)	0.058
<i>SF-6D</i>						
0-4 months	237	0.215 (0.003)	235	0.208 (0.002)	0.007 (0.001, 0.014)	0.050
4-8 months	215	0.221 (0.003)	192	0.212 (0.003)	0.008 (0, 0.017)	0.060
8-12 months	223	0.223 (0.002)	195	0.213 (0.003)	0.010 (0.002, 0.018)	0.024
0-12 months	197	0.664 (0.008)	170	0.634 (0.009)	0.031 (0.008, 0.055)	0.012

N = participants with complete data, SE = Standard error

## Cost-effectiveness results

### Base-case analysis

The base-case cost-effectiveness results are presented in Table 6. The results suggest the CHES intervention generated incremental adjusted costs of £268 (95% CI £176 to £377) and incremental adjusted QALYs of 0.031 (95% CI -0.005 to 0.063) over 12-months of follow-up from an NHS/PSS perspective compared with usual care. The base-case ICER was £8,617 per QALY gained. The incremental net monetary benefit was £354 (95% CI -£375 to £1,084) with probability that the intervention is cost-effective approaching 0.83 if the cost-effectiveness threshold is £20,000 per QALY gained and 0.90 at £30,000 per QALY (Figure 1).

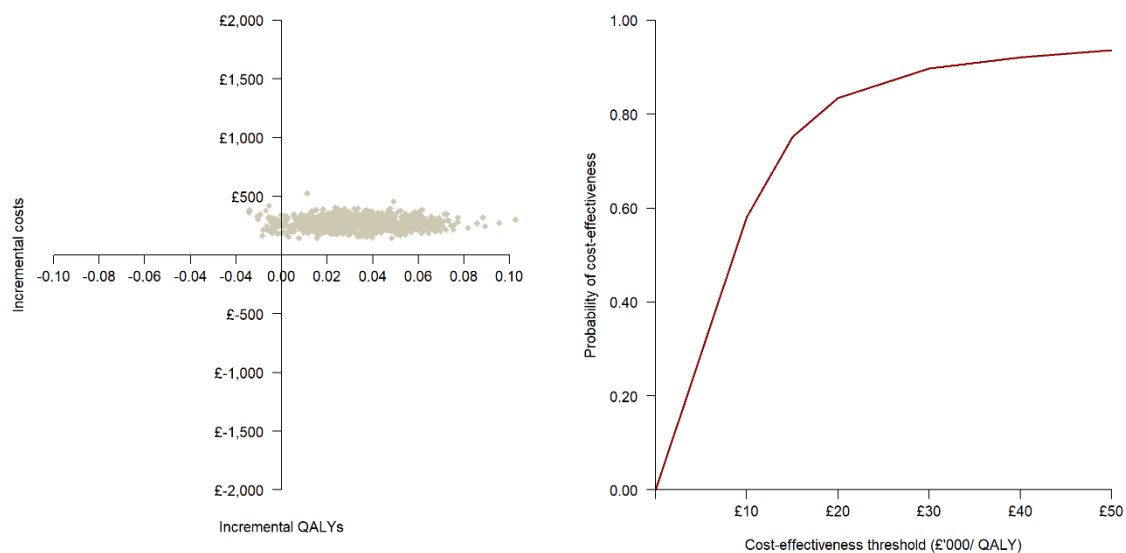


Figure 1: The graph on the left-hand side is the cost-effectiveness plane displaying 1000 base-case ICERs simulated from the joint distribution of incremental costs and incremental QALYs. The graph on the right-hand side represent cost-effectiveness acceptability curves and give a probability estimate of the CHES intervention being cost-effective compared with usual care at the specified willingness-to-pay thresholds.

### Sensitivity analyses

The base-case analysis used multiple imputation to account for missing data and incorporates costs from the perspective of the NHS and PSS and QALYs derived from EQ-5D-5L using the van Hout crosswalk algorithm. Results from sensitivity analyses were carried out to assess the robustness of cost-effectiveness to departures from the base-case assumptions (Table 6). The ICERs ranged from £765 per QALY gained based on societal costs to £32,083 per QALY gained using QALYs derived from SF-6D utilities. In the sensitivity analysis that adopted a societal perspective, the incremental net monetary benefit and probability of cost-effectiveness were £626 (95% CI -£602 to £1,854) and



0.843 at £20,000 per QALY gained, respectively. For the analyses based on SF-6D utilities, the net monetary benefit was negative at £20,000 per QALY, suggesting that the intervention would be generating on average a net loss of £101 (95% CI -£463 to £666) for the NHS and PSS at this cost-effectiveness threshold. The probability that the intervention would be cost-effectiveness was 0.36 using the SF-6D algorithm based on the SF-12 instrument.

### *Subgroup analyses*

The results of subgroup analyses by age group, sex, medication overuse and recruiting location (London versus Midlands) are presented in Table 7. The results suggest at the £20,000 per QALY cost-effectiveness threshold, the intervention is most likely to be cost-effective among over 40-year olds with probability of cost-effectiveness of 0.89, among females with probability 0.85, among those experiencing medication overuse headaches with probability 0.84, and among participants from the West Midlands with probability 0.81.

Table 6: Within-trial cost-effectiveness estimates (base-case and sensitivity analyses) in 2019 prices

Analysis	Incremental estimates (95% CI)			Incremental net monetary benefit (95% CI)			Probability of cost-effectiveness		
	Costs (£)	QALYs	ICER	£15K/QALY	£20K/QALY	£30K/QALY	£15K/QALY	£20K/QALY	£30K/QALY
Base-case (van Hout EQ-5D-5L)	268 (176, 377)	0.031 (-0.005, 0.063)	8617	199 (-352, 750)	354 (-375, 1084)	666 (-423, 1755)	0.752	0.834	0.897
EQ-5D-5L, Hernandez-Alava	269 (170, 388)	0.028 (-0.001, 0.055)	9535	154 (-297, 606)	296 (-297, 889)	578 (-299, 1456)	0.752	0.835	0.902
SF-6D utility	269 (162, 399)	0.008 (-0.02, 0.035)	32083	-143 (-570, 283)	-101 (-666, 463)	-17 (-861, 826)	0.247	0.361	0.475
Societal costs	25 (-702, 1231)	0.033 (-0.001, 0.063)	765	463 (-681, 1608)	626 (-602, 1854)	952 (-490, 2393)	0.784	0.843	0.894
Intervention (16 participants)	157 (81, 245)	0.032 (-0.002, 0.062)	4965	317 (-181, 814)	474 (-185, 1133)	790 (-192, 1772)	0.887	0.916	0.939
Intervention (3 participants)	834 (689, 1000)	0.032 (-0.005, 0.065)	26167	-356 (-956, 244)	-197 (-976, 583)	122 (-1022, 1266)	0.118	0.303	0.586
Unadjusted analysis	229 (82, 432)	0.033 (-0.112, 0.127)	6895	270 (-1789, 2329)	436 (-2281, 3153)	768 (-3264, 4801)	0.621	0.658	0.688
Adjusted complete case analysis	321 (202, 465)	0.017 (-0.01, 0.042)	18968	-67 (-508, 374)	17 (-556, 591)	187 (-656, 1029)	0.392	0.519	0.665

£15K/QALY = £15,000 per QALY cost-effectiveness threshold

£20K/QALY = £20,000 per QALY cost-effectiveness threshold

£30K/QALY = £30,000 per QALY cost-effectiveness threshold

Table 7: Subgroup analyses results

Subgroup	Incremental estimates (95% CI)		Incremental net monetary benefit (95% CI)				Probability of cost-effectiveness		
	Costs (£)	QALYs	ICER	£15K/QALY	£20K/QALY	£30K/QALY	£15K/QALY	£20K/QALY	£30K/QALY
<i>Age group</i>									
Under 40-year olds	371 (192, 615)	0.017 (-0.047, 0.07)	22173	-120 (-1056, 816)	-36 (-1272, 1199)	131 (-1708, 1970)	0.399	0.477	0.548
40 or more-years	226 (106, 375)	0.047 (-0.011, 0.097)	4790	481 (-436, 1398)	717 (-503, 1936)	1188 (-639, 3014)	0.868	0.891	0.920
<i>Sex</i>									
Male	484 (211, 909)	0.017 (-0.074, 0.088)	28261	-227 (-1543, 1089)	-142 (-1871, 1588)	30 (-2535, 2595)	0.369	0.416	0.492
Female	230 (118, 368)	0.046 (-0.018, 0.102)	4969	465 (-582, 1512)	697 (-695, 2088)	1160 (-922, 3242)	0.816	0.851	0.882
<i>Medication over use</i>									
No	303 (166, 479)	0.028 (-0.025, 0.072)	10991	111 (-700, 921)	248 (-823, 1320)	524 (-1072, 2120)	0.579	0.654	0.725
Yes	238 (103, 413)	0.042 (-0.021, 0.095)	5692	390 (-634, 1414)	599 (-759, 1957)	1018 (-1010, 3047)	0.802	0.843	0.879
<i>Region</i>									
London	270 (140, 438)	0.024 (-0.021, 0.064)	11089	95 (-609, 799)	217 (-713, 1147)	461 (-923, 1845)	0.605	0.685	0.756
West Midlands	253 (0, 652)	0.059 (-0.05, 0.143)	4310	628 (-1254, 2509)	921 (-1568, 3411)	1509 (-2201, 5219)	0.780	0.814	0.836

£15K/QALY = £15,000 per QALY cost-effectiveness threshold

£20K/QALY = £20,000 per QALY cost-effectiveness threshold

£30K/QALY = £30,000 per QALY cost-effectiveness threshold

Table S1: Summary of NHS/PSS resource use reported by trial participants

Resource variable and assessment point	Intervention		Usual care		Mean difference (bootstrap 95% CI)	P-value
	N complete cases	Mean (SE)	N complete cases	Mean (SE)		
<i>Primary care (baseline)</i>						
GP surgery, contacts	325	0.85 (0.1)	303	0.74 (0.11)	0.11 (-0.21, 0.38)	0.446
GP home visit, contacts	334	0.01 (0.01)	306	0.03 (0.01)	-0.01 (-0.05, 0.02)	0.355
Practice nurse, contacts	334	0.05 (0.02)	306	0.05 (0.02)	0.01 (-0.06, 0.05)	0.8395
Occupational therapist, contacts	334	0.04 (0.02)	306	0.03 (0.01)	0.01 (-0.03, 0.1)	0.6555
Counsellor, contacts	334	0.09 (0.05)	306	0.02 (0.01)	0.07 (0.01, 0.26)	0.123
Other Primary care, contacts	327	0.13 (0.04)	300	0.06 (0.02)	0.07 (-0.01, 0.16)	0.1045
<i>Secondary care (baseline)</i>						
Emergency department, contacts	333	0.21 (0.07)	304	0.2 (0.05)	0.02 (-0.13, 0.19)	0.837
Inpatient care, days	331	0.02 (0.01)	303	0.07 (0.06)	-0.05 (-0.32, 0.02)	0.5695
Outpatients, contacts	333	0.14 (0.02)	305	0.13 (0.02)	0.02 (-0.05, 0.08)	0.6095
MRI, contacts	330	0.04 (0.01)	306	0.07 (0.02)	-0.03 (-0.07, 0.01)	0.2045
CT, contacts	331	0.03 (0.01)	306	0.05 (0.01)	-0.02 (-0.06, 0.01)	0.1905
<i>Medications (baseline)</i>						
Medications, tablets	376	11.22 (2.39)	351	23.25 (4.21)	-12.02 (-23.07, -3.8)	0.014
<i>Primary care (4 months)</i>						
GP surgery, contacts	365	0.32 (0.05)	346	0.29 (0.06)	0.03 (-0.16, 0.16)	0.725
GP home visit, contacts	369	0.01 (0)	346	0.01 (0.01)	-0.01 (-0.04, 0.01)	0.565
Practice nurse, contacts	369	0.02 (0.01)	347	0.02 (0.01)	0 (-0.04, 0.04)	0.949
Occupational Therapist, contacts	368	0.01 (0.01)	346	0.01 (0.01)	0 (-0.03, 0.01)	0.926
Counsellor, contacts	369	0.02 (0.01)	348	0.01 (0.01)	0.01 (-0.03, 0.05)	0.681
Other Primary care, contacts	366	0.04 (0.02)	344	0.08 (0.03)	-0.04 (-0.13, 0.03)	0.277
<i>Secondary care (4 months)</i>						
Emergency department, contacts	366	0.09 (0.04)	346	0.12 (0.05)	-0.03 (-0.15, 0.09)	0.594
Inpatient care, days	368	0 (0)	347	0.01 (0)	-0.01 (-0.02, 0)	0.2295
Outpatients, contacts	366	0.05 (0.01)	347	0.07 (0.02)	-0.02 (-0.06, 0.02)	0.364
MRI, contacts	369	0.02	348	0.01	0	0.576

		(0.01)		(0.01)	(-0.01, 0.02)	
CT, contacts	369	0.01 (0.01)	347	0.01 (0.01)	0 (-0.02, 0.01)	0.9205
<i>Medications (4 months)</i>						
Medications, tablets	376	5.88 (1.81)	351	7.7 (2.04)	-1.82 (-7.14, 3.65)	0.508
<i>Primary care (8 months)</i>						
GP surgery, contacts	372	0.24 (0.04)	348	0.27 (0.05)	-0.04 (-0.17, 0.09)	0.576
GP home visit, contacts	375	0.03 (0.02)	351	0.02 (0.01)	0.01 (-0.02, 0.05)	0.5825
Practice nurse, contacts	375	0.03 (0.01)	351	0.02 (0.01)	0.01 (-0.05, 0.03)	0.712
Occupational Therapist, contacts	374	0.04 (0.03)	351	0.01 (0.01)	0.03 (-0.01, 0.17)	0.4375
Counsellor, contacts	374	0.02 (0.02)	351	0 (0)	0.01 (-0.01, 0.08)	0.453
Other Primary care, contacts	373	0.04 (0.01)	348	0.05 (0.02)	-0.01 (-0.06, 0.04)	0.723
<i>Secondary care (8 months)</i>						
Emergency department, contacts	372	0.09 (0.03)	348	0.15 (0.08)	-0.07 (-0.39, 0.04)	0.427
Inpatient care, days	373	0.01 (0)	350	0 (0)	0 (-0.01, 0.01)	0.694
Outpatients, contacts	374	0.06 (0.02)	349	0.04 (0.01)	0.02 (-0.01, 0.07)	0.223
MRI, contacts	375	0.02 (0.01)	351	0.03 (0.01)	0 (-0.03, 0.02)	0.7025
CT, contacts	375	0.01 (0.01)	351	0.01 (0.01)	0 (-0.02, 0.02)	0.9045
<i>Medications (8 months)</i>						
Medications, tablets	376	7.41 (2.62)	351	4.98 (1.58)	2.42 (-2.97, 9.69)	0.4195
<i>Primary care (12 months)</i>						
GP surgery, contacts	250	0.27 (0.05)	223	0.31 (0.06)	-0.04 (-0.19, 0.1)	0.6195
GP home visit, contacts	253	0.02 (0.01)	226	0 (0)	0.01 (0, 0.06)	0.3805
Practice nurse, contacts	253	0.05 (0.02)	224	0.02 (0.01)	0.03 (0, 0.1)	0.2045
Occupational Therapist, contacts	253	0.02 (0.01)	226	0.01 (0.01)	0.01 (-0.02, 0.05)	0.609
Counsellor, contacts	252	0.02 (0.01)	225	0.01 (0.01)	0.01 (-0.02, 0.04)	0.6065
Other Primary care, contacts	253	0.01 (0.01)	226	0.08 (0.03)	-0.08 (-0.15, -0.03)	0.0105
<i>Secondary care (12 months)</i>						
Emergency department, contacts	252	0.06 (0.02)	225	0.06 (0.02)	0.01 (-0.05, 0.06)	0.8445
Inpatient care, days	254	0 (0)	226	0.04 (0.04)	-0.04 (-0.21, 0)	0.546
Outpatients, contacts	252	0.09 (0.03)	226	0.09 (0.02)	-0.01 (-0.07, 0.06)	0.8735
MRI, contacts	253	0.02 (0.01)	223	0.01 (0.01)	0 (-0.02, 0.02)	0.833

CT, contacts	253	0 (0)	225	0.02 (0.01)	-0.01 (-0.04, 0)	0.1385
<i>Medications (12 months)</i>						
Medications, tablets	376	3.55 (1.17)	351	4.47 (1.33)	-0.92 (-4.43, 2.49)	0.581

Table S2: Summary of NHS resource use extracted from GP records

Resource variable and assessment point	Intervention		Usual care		Mean difference (bootstrap 95% CI)	P-value
	N complete cases	Mean (SE)	N complete cases	Mean (SE)		
<i>Primary care</i>						
GP surgery	315	3.74 (0.21)	271	4.06 (0.24)	-0.32 (-0.99, 0.27)	0.3175
GP home visit	315	0.04 (0.02)	271	0.06 (0.05)	-0.01 (-0.25, 0.05)	0.842
GP telephone consultation	315	1.36 (0.14)	271	1.38 (0.15)	-0.02 (-0.43, 0.38)	0.9325
Practice nurse	315	1.85 (0.13)	271	1.94 (0.17)	-0.09 (-0.55, 0.3)	0.6735
Practice nurse home visit	315	0.02 (0.02)	271	0.01 (0.01)	0 (-0.02, 0.06)	0.839
Practice nurse telephone consultation	315	0.14 (0.04)	271	0.12 (0.03)	0.02 (-0.07, 0.12)	0.621
Other primary care consultations	315	0 (0)	271	0.01 (0.01)	-0.01 (-0.03, 0)	0.2285
<i>Secondary care</i>						
Emergency department	315	0.03 (0.01)	271	0.03 (0.01)	-0.01 (-0.05, 0.02)	0.6445
Inpatient care	315	0.03 (0.02)	271	0.03 (0.03)	0 (-0.13, 0.05)	0.976
Outpatients (pain management / neurology)	315	0.28 (0.04)	271	0.23 (0.04)	0.04 (-0.07, 0.16)	0.4575
Other outpatients	315	0.02 (0.01)	271	0.03 (0.01)	-0.01 (-0.04, 0.02)	0.626
<i>Medications</i>						
Medications	315	13.04 (0.02)	271	13.03 (0.01)	0.02 (-0.02, 0.07)	0.4785

Table S3 Summary of Non-NHS/PSS resource use reported by trial participants

Resource variable and assessment point	Intervention		Usual care		Mean difference (bootstrap 95% CI)	P-value
	N complete cases	Mean (SE)	N complete cases	Mean (SE)		
<i>Productivity costs (baseline)</i>						
In come lost, amount reported	317	97.15 (31.19)	302	272.07 (142.42)	-174.92 (-707.47, -0.82)	0.209
Time off work, days	316	3.77 (0.77)	302	3.82 (0.85)	-0.05 (-2.23, 2.27)	0.956
<i>Additional costs to you (baseline)</i>						
Travel costs to you, amount reported	323	2.16 (1.05)	304	3.57 (1.24)	-1.41 (-4.62, 1.78)	0.3985
Childcare costs to you, amount reported	328	2.03 (1.9)	307	0.08 (0.08)	1.95 (0.01, 12.79)	0.269
Other additional costs to you, amount reported	376	14.37 (5.06)	351	6.75 (2.59)	7.62 (-1.42, 22.85)	0.179
<i>Additional costs to partner (baseline)</i>						
Travel costs to partner, amount reported	323	1.68 (1.55)	304	0.78 (0.29)	0.9 (-0.83, 8.54)	0.615
Childcare costs to partner, amount reported	328	0 (0)	307	0.2 (0.2)	-0.2 (-1.06, 0)	0.4875
Other additional costs to partner, amount reported	376	5.66 (2.74)	351	5.76 (5.43)	-0.1 (-22.95, 7.52)	0.986
<i>Productivity costs (4 months)</i>						
In come lost, amount reported	361	66.05 (29.39)	339	64.06 (27.36)	1.99 (-78.74, 82.71)	0.967
Time off work, days	360	1.43 (0.41)	338	1.1 (0.38)	0.33 (-0.74, 1.48)	0.552
<i>Additional costs to you (4 months)</i>						
Travel costs to you, amount reported	365	7.12 (5.72)	345	3.39 (1.89)	3.72 (-3.52, 28.25)	0.572
Childcare costs to you, amount reported	366	2.76 (2.2)	346	0.7 (0.44)	2.06 (-0.54, 15.99)	0.376
Other additional costs to you, amount reported	376	21.12 (16.25)	351	4.72 (1.58)	16.4 (-1.08, 94.09)	0.3195
<i>Additional costs to partner (4 months)</i>						
Travel costs to partner, amount reported	365	0.43 (0.25)	345	0.35 (0.18)	0.08 (-0.42, 0.87)	0.8035
Childcare costs to partner, amount reported	366	0.07 (0.07)	346	0.38 (0.3)	-0.31 (-1.74, 0.06)	0.3235



		)				
Other additional costs to partner, amount reported	376	0.22 (0.15 )	351	0.51 (0.5)	-0.29 (-2.34, 0.31)	0.5925
<i>Productivity costs (8 months)</i>						
In come lost, amount reported	364	58.31 (27.5 7)	343	115 (80.53)	-56.69 (-378.68, 51.44)	0.532
Time off work, days	364	1.18 (0.3)	343	1.18 (0.35)	0 (-0.91, 0.87)	1
<i>Additional costs to you (8 months)</i>						
Travel costs to you, amount reported	370	1.47 (0.63 )	347	1.42 (0.61)	0.04 (-1.59, 1.98)	0.961
Childcare costs to you, amount reported	373	0 (0)	349	0.4 (0.38)	-0.4 (-2.31, 0)	0.1955
Other additional costs to you, amount reported	376	9.59 (3.24 )	351	3 (1.5)	6.59 (0.91, 15.45)	0.065
<i>Additional costs to partner (8 months)</i>						
Travel costs to partner, amount reported	370	0.47 (0.19 )	347	0.61 (0.3)	-0.14 (-1.07, 0.41)	0.678
Childcare costs to partner, amount reported	373	0.54 (0.53 )	349	0.4 (0.41)	0.14 (-0.83, 2.05)	0.7
Other additional costs to partner, amount reported	376	0.88 (0.82 )	351	0.14 (0.14)	0.74 (-0.18, 4.62)	0.4415
<i>Productivity costs (12 months)</i>						
In come lost, amount reported	330	68.73 (42.0 9)	295	167.04 (133.5 1)	-98.31 (-641.45, 69.19)	0.4865
Time off work, days	329	2.14 (0.7)	295	1.67 (0.53)	0.48 (-1.09, 2.45)	0.5905
<i>Additional costs to you (12 months)</i>						
Travel costs to you, amount reported	338	2.29 (1.22 )	298	2.47 (1.3)	-0.18 (-3.77, 3.23)	0.9145
Childcare costs to you, amount reported	339	0.19 (0.15 )	301	2.04 (1.47)	-1.85 (-9.02, -0.12)	0.1815
Other additional costs to you, amount reported	376	8.62 (3.94 )	351	5.91 (2.9)	2.71 (-5.86, 13.39)	0.5925
<i>Additional costs to partner (12 months)</i>						
Travel costs to partner, amount reported	338	0.5 (0.43 )	298	2.3 (1.97)	-1.8 (-10.37, 0.56)	0.4115
Childcare costs to partner, amount reported	339	0 (0)	301	0.5 (0.5)	-0.5 (-3.02, 0)	0.181
Other additional costs to partner, amount reported	376	1.06 (1.09 )	351	0 (0)	1.06 (0, 6.56)	0.5055



Table S4: Summary of NHS/PSS costs based on resource use data reported by trial participants (CRF data)

Cost category and assessment point	Mean (SE) costs intervention	Mean (SE) costs usual care arm	Mean difference (bootstrap 95% CI)	P-value
<i>Primary care (baseline)</i>				
GP surgery, contacts	33.12 (3.76)	28.7 (4.31)	4.42 (-8.32, 14.85)	0.442
GP home visit, contacts	0.47 (0.36)	1.02 (0.5)	-0.55 (-1.88, 0.55)	0.337
Practice nurse, contacts	2.14 (0.68)	1.92 (0.89)	0.22 (-2.63, 1.94)	0.8415
Occupational Therapist, contacts	1.75 (1.13)	1.18 (0.64)	0.58 (-1.21, 4.71)	0.644
Counsellor, contacts	3.91 (2.23)	0.74 (0.33)	3.17 (0.51, 11.48)	0.12
Other Primary care, contacts	9.78 (2.8)	5.44 (1.9)	4.34 (-1.62, 11.88)	0.198
Total primary care costs	51.34 (5.61)	38.82 (5.25)	12.52 (-3.22, 27.52)	0.1075
<i>Secondary care (baseline)</i>				
Emergency department, contacts	24.64 (7.57)	22.81 (5.96)	1.83 (-15.36, 22.05)	0.845
Inpatient care, days	0.02 (0.01)	0.07 (0.06)	-0.05 (-0.29, 0.02)	0.585
Outpatients, contacts	25.57 (4.06)	22.68 (3.92)	2.89 (-7.66, 14.44)	0.603
MRI, contacts	5.78 (1.52)	9.35 (2.33)	-3.57 (-9.68, 1.63)	0.2165
CT, contacts	2.26 (0.74)	4.08 (1.16)	-1.82 (-4.95, 0.64)	0.19
Total secondary care costs	58.02 (9.42)	58.43 (9.42)	-0.41 (-25.1, 26.03)	0.9795
<i>Medications (baseline)</i>				
Medications, tablets	3.85 (1.09)	3.79 (1.11)	0.07 (-3.2, 2.82)	0.965
<i>Primary care (4 months)</i>				
GP surgery, contacts	12.61 (2.12)	11.5 (2.36)	1.11 (-6.35, 6.64)	0.7325
GP home visit, contacts	0.32 (0.18)	0.56 (0.41)	-0.25 (-1.55, 0.4)	0.5935
Practice nurse, contacts	0.8 (0.57)	0.85 (0.52)	-0.05 (-1.64, 1.53)	0.956
Occupational Therapist, contacts	0.49 (0.24)	0.52 (0.41)	-0.03 (-1.38, 0.62)	0.928
Counsellor, contacts	0.98 (0.65)	0.65 (0.52)	0.33 (-1.14, 2.27)	0.689
Other Primary care, contacts	1.97 (0.99)	11.23 (5.04)	-9.25 (-26.85, -2.19)	0.054
Total primary care costs	17.33 (2.65)	25.26 (7.08)	-7.93 (-31.64, 2.62)	0.289
<i>Secondary care (4 months)</i>				
Emergency department, contacts	10.74 (4.32)	14.36 (5.33)	-3.63 (-17.97, 9.27)	0.592
Inpatient care, days	0 (0)	0.01 (0)	-0.01 (-0.02, 0)	0.096
Outpatients, contacts	9.69 (2.34)	13.29 (3.1)	-3.6 (-11.79, 3.35)	0.347
MRI, contacts	2.21 (0.9)	1.57 (0.77)	0.65 (-1.57, 2.9)	0.602
CT, contacts	0.9 (0.45)	0.96 (0.59)	-0.06 (-1.83, 1.11)	0.9245
Total secondary care costs	23.83 (5.96)	30.41 (7.46)	-6.58 (-27.19, 10.51)	0.472
<i>Medications (4 months)</i>				
Medications, tablets	1.11 (0.39)	1.49 (0.57)	-0.38 (-2.1, 0.77)	0.582
<i>Primary care (8 months)</i>				
GP surgery, contacts	9.23 (1.41)	10.65 (2.06)	-1.42 (-6.56, 3.04)	0.567
GP home visit, contacts	1.04 (0.59)	0.67 (0.38)	0.37 (-0.82, 2.03)	0.6085
Practice nurse, contacts	1.12 (0.42)	0.84 (0.64)	0.28 (-1.79, 1.37)	0.7115
Occupational Therapist, contacts	1.68 (1.45)	0.38 (0.29)	1.3 (-0.38, 8.36)	0.4575

Counsellor, contacts	0.72 (0.72)	0.13 (0.13)	0.59 (-0.25, 3.73)	0.5865
Other Primary care, contacts	2.49 (1)	4.56 (1.94)	-2.07 (-8.21, 1.1)	0.335
Total primary care costs	16.36 (2.85)	16.72 (3.25)	-0.35 (-8.88, 8.02)	0.9275
<i>Secondary care (8 months)</i>				
Emergency department, contacts	9.94 (3.43)	17.6 (8.83)	-7.66 (-39.4, 4.86)	0.4165
Inpatient care, days	0.01 (0)	0 (0)	0 (-0.01, 0.01)	0.6885
Outpatients, contacts	10.91 (2.83)	6.61 (1.88)	4.3 (-1.93, 11.18)	0.203
MRI, contacts	2.91 (1.12)	3.49 (1.12)	-0.59 (-3.6, 2.62)	0.7085
CT, contacts	1.11 (0.5)	1.19 (0.53)	-0.08 (-1.51, 1.32)	0.9005
Total secondary care costs	24.62 (5.06)	28.45 (9.84)	-3.83 (-35.18, 12.56)	0.7305
<i>Medications (8 months)</i>				
Medications, tablets	1.7 (0.55)	1.68 (0.65)	0.03 (-1.84, 1.54)	0.9755
<i>Intervention (12 months)</i>				
Intervention, costs	266.95 (4.77)	0.4 (0)	266.55 (258.09, 276.6)	0
<i>Primary care (12 months)</i>				
GP surgery, contacts	10.61 (1.93)	12.07 (2.3)	-1.46 (-7.25, 4.35)	0.6285
GP home visit, contacts	0.62 (0.49)	0.17 (0.17)	0.44 (-0.19, 2.3)	0.4465
Practice nurse, contacts	1.99 (0.89)	0.75 (0.37)	1.24 (-0.13, 3.93)	0.2
Occupational Therapist, contacts	0.71 (0.54)	0.4 (0.4)	0.31 (-0.81, 1.93)	0.669
Counsellor, contacts	0.71 (0.55)	0.4 (0.41)	0.31 (-0.76, 2.19)	0.607
Other Primary care, contacts	0.62 (0.47)	12.2 (6.91)	-11.57 (-44.26, -3.53)	0.068
Total primary care costs	15.32 (3.07)	26.28 (7.7)	-10.96 (-35.54, 0.62)	0.1885
<i>Secondary care (12 months)</i>				
Emergency department, contacts	7.34 (2.3)	6.68 (2.39)	0.66 (-6.2, 6.64)	0.835
Inpatient care, days	0 (0)	0.04 (0.04)	-0.04 (-0.19, 0)	0.5465
Outpatients, contacts	15.48 (4.4)	16.48 (3.88)	-1 (-11.86, 10.52)	0.8665
MRI, contacts	2.15 (1.06)	1.83 (1.04)	0.32 (-2.72, 3.19)	0.824
CT, contacts	0.33 (0.33)	1.48 (0.74)	-1.15 (-3.4, 0)	0.1385
Total secondary care costs	24.1 (5.66)	26.36 (5.68)	-2.26 (-17.59, 15.19)	0.78
<i>Medications (12 months)</i>				
Medications, tablets	0.55 (0.17)	5.11 (2.86)	-4.56 (-17.49, -1.27)	0.0775

Table S5: NHS/PSS costs based on resource used extracted from GP records over 12 months of follow-up

Cost category and assessment point	Mean (SE) costs intervention	Mean (SE) costs usual care arm	Mean difference (bootstrap 95% CI)	P-value
<i>Primary care</i>				
GP surgery	145.72 (8.01)	158.16 (9.36)	-12.43 (-38.11, 11.32)	0.315
GP home visit	1.73 (0.64)	2.16 (1.98)	-0.43 (-9.3, 2.08)	0.829
GP telephone consultation	52.99 (5.4)	53.68 (6.04)	-0.69 (-16.73, 14.92)	0.931
Practice nurse	77.87 (5.7)	81.68 (7.36)	-3.81 (-25.12,	0.666

			12.34)	
Practice nurse home visit	0.73 (0.73)	0.51 (0.49)	0.22 (-1.01, 2.95)	0.7065
Practice nurse telephone consultation	6 (1.6)	5.11 (1.13)	0.89 (-2.59, 5.3)	0.658
Other primary care consultations	0 (0)	0.33 (0.24)	-0.33 (-1.13, 0)	0.2355
Total primary care costs	285.04 (14.04)	301.63 (16.59)	-16.58 (-59.29, 26.43)	0.454
<i>Secondary care</i>				
Emergency department	2.94 (1.03)	3.84 (1.65)	-0.9 (-5.55, 2.6)	0.6515
Inpatient care	18.26 (9.28)	8.34 (8.46)	9.92 (-17.07, 34.42)	0.4145
Outpatients (pain management / neurology)	51.07 (8.28)	41.15 (7.3)	9.93 (-11.2, 32.37)	0.365
Other outpatients	2.41 (1.08)	4.03 (1.55)	-1.63 (-5.92, 1.52)	0.3915
Total secondary care costs	74.68 (13.16)	57.35 (11.48)	17.32 (-17.84, 50.49)	0.3235
<i>Medications</i>				
Medications	132.35 (16.97)	143.62 (18.76)	-11.27 (-60.36, 39.5)	0.669

Table S6: Summary of private medical and non-medical expenses and additional costs to families in lost productivity

Cost category and assessment point	Mean (SE) costs intervention	Mean (SE) costs usual care arm	Mean difference (bootstrap 95% CI)	P-value
<i>Primary care (baseline)</i>				
GP surgery, contacts	0 (0)	0.13 (0.13)	-0.13 (-0.67, 0)	0.171
Occupational Therapist, contacts	0 (0)	0.59 (0.29)	-0.59 (-1.47, -0.15)	0.047
Counsellor, contacts	0.94 (0.4)	1.18 (0.66)	-0.23 (-2.35, 0.9)	0.7485
Other Primary care, contacts	7.09 (2.39)	10.57 (3.79)	-3.48 (-13.91, 4.02)	0.4355
Total primary care costs	8.29 (2.51)	12.59 (3.93)	-4.3 (-15.24, 3.62)	0.3615
<i>Secondary care (baseline)</i>				
Emergency department, contacts	30.19 (8.16)	33.07 (7.4)	-2.88 (-23.09, 19.98)	0.7985
Outpatients, contacts	3.73 (1.91)	4.65 (1.62)	-0.92 (-5.18, 5.01)	0.7045
MRI, contacts	0.83 (0.58)	0.89 (0.62)	-0.06 (-1.85, 1.6)	0.8855
CT, contacts	0.25 (0.27)	0.54 (0.38)	-0.29 (-1.41, 0.46)	0.424
Total secondary care costs	35.28 (8.68)	38.93 (7.98)	-3.65 (-25.03, 22.03)	0.7675
<i>Productivity costs (baseline)</i>				
In come lost, amount reported	97.15 (30.9)	272.07 (144.33)	-174.92 (-817.48, 6.45)	0.221
Time off work, days	421.42 (85.63)	427.27 (97.44)	-5.85 (-274.8, 241.21)	0.9655
Total productivity related costs	518.88 (109.65)	699.35 (211.25)	-180.47 (-839.72, 168.02)	0.4525
<i>Additional costs to you (baseline)</i>				
Travel costs to you, amount reported	2.16 (1.02)	3.57 (1.25)	-1.41 (-4.65, 1.84)	0.366

Childcare costs to you, amount reported	2.03 (1.8)	0.08 (0.08)	1.95 (0, 10.31)	0.1975
Other additional costs to you, amount reported	14.37 (5.42)	6.75 (2.55)	7.62 (-1.83, 23.89)	0.1965
Total additional costs, study participants	18.97 (6.32)	10.68 (3.45)	8.29 (-3.21, 26.91)	0.245
<i>Additional costs to partner (baseline)</i>				
Travel costs to partner, amount reported	1.68 (1.55)	0.78 (0.29)	0.9 (-0.84, 7.4)	0.627
Childcare costs to partner, amount reported	0 (0)	0.2 (0.19)	-0.2 (-1.11, 0)	0.175
Other additional costs to partner, amount reported	5.66 (2.78)	5.76 (5.43)	-0.1 (-17.93, 8.13)	0.9845
Total additional costs, partner	8.27 (3.54)	7.65 (6.42)	0.62 (-23.59, 10.37)	0.9355
<i>Primary care (4 months)</i>				
Occupational Therapist, contacts	0.24 (0.25)	0.13 (0.13)	0.11 (-0.26, 1.02)	0.812
Counsellor, contacts	0 (0)	2.97 (2.21)	-2.97 (-12.5, -0.26)	0.1505
Other Primary care, contacts	4.06 (2.06)	2.22 (1.11)	1.83 (-2.09, 7.68)	0.431
Total primary care costs	4.35 (2.1)	4.63 (2.41)	-0.28 (-6.96, 5.55)	0.932
<i>Secondary care (4 months)</i>				
Emergency department, contacts	26.52 (8.9)	15.7 (6.15)	10.83 (-7, 36.22)	0.316
Outpatients, contacts	5.33 (2.25)	1.53 (0.86)	3.8 (0.37, 10.4)	0.1035
MRI, contacts	1.11 (0.82)	0 (0)	1.11 (0, 4.3)	0.1025
Total secondary care costs	33.15 (9.57)	17.29 (6.57)	15.87 (-6.08, 39.71)	0.163
<i>Productivity costs (4 months)</i>				
In come lost, amount reported	66.05 (29.54)	64.06 (27.1)	1.99 (-78.66, 84.15)	0.9565
Time off work, days	159.51 (46.67)	122.63 (40.33)	36.88 (-71.38, 172)	0.5335
Total productivity related costs	225.74 (73.37)	186.61 (67.07)	39.14 (-153.7, 242.41)	0.6835
<i>Additional costs to you (4 months)</i>				
Travel costs to you, amount reported	7.12 (5.45)	3.39 (1.86)	3.72 (-3.3, 26.58)	0.5505
Childcare costs to you, amount reported	2.76 (2.23)	0.7 (0.43)	2.06 (-0.5, 13.2)	0.3895
Other additional costs to you, amount reported	21.12 (16.53)	4.72 (1.57)	16.4 (-1.42, 118.45)	0.331
Total additional costs, study participants	31.73 (18.51)	8.9 (2.96)	22.83 (0.15, 101.42)	0.202
<i>Additional costs to partner (4 months)</i>				
Travel costs to partner, amount reported	0.43 (0.25)	0.35 (0.18)	0.08 (-0.42, 0.81)	0.802
Childcare costs to partner, amount reported	0.07 (0.07)	0.38 (0.31)	-0.31 (-1.55, 0.06)	0.334
Other additional costs to partner, amount reported	0.22 (0.16)	0.51 (0.49)	-0.29 (-2.91, 0.3)	0.5835
Total additional costs, partner	0.73 (0.36)	1.25 (0.71)	-0.52 (-2.76, 0.67)	0.511
<i>Primary care (8 months)</i>				
GP surgery, contacts	0.21 (0.21)	0.45 (0.35)	-0.24 (-1.36, 0.35)	0.5725
Occupational Therapist, contacts	0.24 (0.17)	0.13 (0.13)	0.11 (-0.28, 0.51)	0.616
Counsellor, contacts	0.48 (0.47)	0.9 (0.57)	-0.42 (-2.1, 0.89)	0.547
Other Primary care, contacts	16.02 (12.06)	6.85 (4.39)	9.16 (-6.23, 53.53)	0.489
Total primary care costs	17.04 (12.04)	8.41 (4.38)	8.63 (-6.57, 59.31)	0.513

<i>Secondary care (8 months)</i>				
Emergency department, contacts	36.66 (11.34)	20.92 (8.63)	15.74 (-11.69, 44.96)	0.28
Outpatients, contacts	1.42 (1.05)	2.03 (1.44)	-0.61 (-5, 2.43)	0.7065
MRI, contacts	0.36 (0.37)	0.78 (0.78)	-0.41 (-3.35, 0.73)	0.521
Total secondary care costs	38.56 (11.55)	23.81 (10.04)	14.75 (-16.52, 45.31)	0.331
<i>Productivity costs (8 months)</i>				
In come lost, amount reported	58.31 (27.44)	115 (82.63)	-56.69 (-402.84, 47.35)	0.5345
Time off work, days	131.98 (33.92)	131.91 (36.95)	0.06 (-106.75, 91.69)	0.9985
Total productivity related costs	190.29 (59.93)	246.91 (112.05)	-56.62 (-467.36, 117.74)	0.6435
<i>Additional costs to you (8 months)</i>				
Travel costs to you, amount reported	1.47 (0.63)	1.42 (0.61)	0.04 (-1.65, 1.82)	0.9535
Childcare costs to you, amount reported	0 (0)	0.4 (0.4)	-0.4 (-2.44, 0)	0.18
Other additional costs to you, amount reported	9.59 (3.25)	3 (1.51)	6.59 (0.54, 15.69)	0.0675
Total additional costs, study participants	11.21 (3.56)	4.86 (1.71)	6.35 (-0.35, 16.09)	0.1095
<i>Additional costs to partner (8 months)</i>				
Travel costs to partner, amount reported	0.47 (0.19)	0.61 (0.3)	-0.14 (-1.03, 0.43)	0.6885
Childcare costs to partner, amount reported	0.54 (0.55)	0.4 (0.4)	0.14 (-0.83, 2)	0.843
Other additional costs to partner, amount reported	0.88 (0.83)	0.14 (0.14)	0.74 (-0.17, 4.23)	0.49
Total additional costs, partner	1.9 (1.05)	1.16 (0.56)	0.74 (-1.08, 3.84)	0.537
<i>Primary care (12 months)</i>				
GP surgery, contacts	0.16 (0.15)	0.35 (0.36)	-0.19 (-1.61, 0.31)	0.6365
Other Primary care, contacts	0.53 (0.53)	1.79 (1.25)	-1.26 (-5.78, 0.51)	0.3445
Total primary care costs	0.7 (0.59)	2.18 (1.35)	-1.48 (-6.74, 0.49)	0.299
<i>Secondary care (12 months)</i>				
Emergency department, contacts	29.81 (8.34)	13.35 (6.33)	16.45 (-3.54, 37.61)	0.117
Outpatients, contacts	0 (0)	2.35 (1.72)	-2.35 (-10.03, 0)	0.0945
Total secondary care costs	29.93 (8.6)	15.93 (6.62)	14 (-6.31, 35.1)	0.202
<i>Productivity costs (12 months)</i>				
In come lost, amount reported	68.73 (43.74)	167.04 (132.08)	-98.31 (-691.28, 67.12)	0.4965
Time off work, days	239.4 (78.03)	186.33 (57.95)	53.07 (-123.78, 263.2)	0.5875
Total productivity related costs	308.04 (109.7)	353.37 (183.39)	-45.33 (-724.11, 244.5)	0.8385
<i>Additional costs to you (12 months)</i>				
Travel costs to you, amount reported	2.29 (1.28)	2.47 (1.3)	-0.18 (-3.94, 3.42)	0.9035
Childcare costs to you, amount reported	0.19 (0.15)	2.04 (1.42)	-1.85 (-8.11, -0.16)	0.1735
Other additional costs to you, amount reported	8.62 (3.94)	5.91 (2.89)	2.71 (-5.44, 13.95)	0.565
Total additional costs, study participants	12.07 (4.6)	11.37 (4.47)	0.7 (-11.09, 13.94)	0.9105
<i>Additional costs to partner (12 months)</i>				

Travel costs to partner, amount reported	0.5 (0.45)	2.3 (1.96)	-1.8 (-10.57, 0.57)	0.416
Childcare costs to partner, amount reported	0 (0)	0.5 (0.51)	-0.5 (-2.72, 0)	0.5045
Other additional costs to partner, amount reported	1.06 (1.04)	0 (0)	1.06 (0, 6.38)	0.1885
<i>Total additional costs, partner</i>	1.68 (1.25)	2.8 (2.07)	-1.12 (-8.48, 2.37)	0.624
Total non-NHS/PSS costs, costs	776.08 (318.67)	693.28 (200.72)	82.81 (-508.52, 1148.29)	0.825

Table S7: Summary of EQ-5D-5L dimensions

EQ5D-5L dimensional responses	Intervention	Usual care	P-value
<i>Mobility (baseline)</i>			
No problems in walking	231 (61.4%)	214 (61%)	0.85
Slight problems in walking	77 (20.5%)	75 (21.4%)	
Moderate problems in walking	45 (12%)	35 (10%)	
Severe problems in walking	18 (4.8%)	23 (6.6%)	
Unable to walk	2 (0.5%)	4 (1.1%)	
Missing	3 (0.8%)	0 (0%)	
<i>Self-care (baseline)</i>			
No problems washing or dressing	316 (84%)	291 (82.9%)	0.697
Slight problems washing or dressing	29 (7.7%)	30 (8.5%)	
Moderate problems washing or dressing	22 (5.9%)	17 (4.8%)	
Severe problems washing or dressing	5 (1.3%)	9 (2.6%)	
Unable to wash or dress	1 (0.3%)	2 (0.6%)	
Missing	3 (0.8%)	2 (0.6%)	
<i>Usual activities (baseline)</i>			
No problems doing my usual activities	153 (40.7%)	151 (43%)	0.615
Slight problems doing my usual activities	116 (30.9%)	97 (27.6%)	
Moderate problems doing my usual activities	72 (19.1%)	70 (19.9%)	
Severe problems doing my usual activities	25 (6.6%)	27 (7.7%)	
Unable to do my usual activities	7 (1.9%)	5 (1.4%)	
Missing	3 (0.8%)	1 (0.3%)	
<i>Pain and discomfort (baseline)</i>			
No pain or discomfort	37 (9.8%)	32 (9.1%)	0.819
Slight pain or discomfort	133 (35.4%)	112 (31.9%)	
Moderate pain or discomfort	131 (34.8%)	136 (38.7%)	
Severe pain or discomfort	60 (16%)	53 (15.1%)	
Extreme pain or discomfort	12 (3.2%)	17 (4.8%)	
Missing	3 (0.8%)	1 (0.3%)	
<i>Anxiety and depression (baseline)</i>			
Not anxious or depressed	128 (34%)	107 (30.5%)	0.32
Slightly anxious or depressed	118 (31.4%)	122 (34.8%)	
Moderately anxious or depressed	80 (21.3%)	81 (23.1%)	
Severely anxious or depressed	31 (8.2%)	24 (6.8%)	
Extremely anxious or depressed	15 (4%)	15 (4.3%)	
Missing	4 (1.1%)	2 (0.6%)	
<i>Mobility (4 months)</i>			



No problems in walking	185 (49.2%)	171 (48.7%)	0.248
Slight problems in walking	54 (14.4%)	55 (15.7%)	
Moderate problems in walking	21 (5.6%)	25 (7.1%)	
Severe problems in walking	14 (3.7%)	19 (5.4%)	
Unable to walk	2 (0.5%)	6 (1.7%)	
Missing	100 (26.6%)	75 (21.4%)	
<i>Self-care (4 months)</i>			
No problems washing or dressing	232 (61.7%)	225 (64.1%)	0.499
Slight problems washing or dressing	24 (6.4%)	25 (7.1%)	
Moderate problems washing or dressing	12 (3.2%)	17 (4.8%)	
Severe problems washing or dressing	6 (1.6%)	8 (2.3%)	
Unable to wash or dress	2 (0.5%)	1 (0.3%)	
Missing	100 (26.6%)	75 (21.4%)	
<i>Usual activities (4 months)</i>			
No problems doing my usual activities	136 (36.2%)	120 (34.2%)	0.187
Slight problems doing my usual activities	86 (22.9%)	87 (24.8%)	
Moderate problems doing my usual activities	36 (9.6%)	35 (10%)	
Severe problems doing my usual activities	15 (4%)	26 (7.4%)	
Unable to do my usual activities	2 (0.5%)	8 (2.3%)	
Missing	101 (26.9%)	75 (21.4%)	
<i>Pain and discomfort (4 months)</i>			
No pain or discomfort	54 (14.4%)	39 (11.1%)	0.116
Slight pain or discomfort	105 (27.9%)	92 (26.2%)	
Moderate pain or discomfort	84 (22.3%)	98 (27.9%)	
Severe pain or discomfort	26 (6.9%)	37 (10.5%)	
Extreme pain or discomfort	8 (2.1%)	10 (2.8%)	
Missing	99 (26.3%)	75 (21.4%)	
<i>Anxiety and depression (4 months)</i>			
Not anxious or depressed	102 (27.1%)	81 (23.1%)	0.075
Slightly anxious or depressed	91 (24.2%)	105 (29.9%)	
Moderately anxious or depressed	55 (14.6%)	60 (17.1%)	
Severely anxious or depressed	15 (4%)	18 (5.1%)	
Extremely anxious or depressed	13 (3.5%)	11 (3.1%)	
Missing	100 (26.6%)	76 (21.7%)	
<i>Mobility (8 months)</i>			
No problems in walking	194 (51.6%)	164 (46.7%)	0.17
Slight problems in walking	50 (13.3%)	43 (12.3%)	
Moderate problems in walking	20 (5.3%)	36 (10.3%)	
Severe problems in walking	16 (4.3%)	14 (4%)	
Unable to walk	2 (0.5%)	4 (1.1%)	
Missing	94 (25%)	90 (25.6%)	
<i>Self-care (8 months)</i>			
No problems washing or dressing	246 (65.4%)	214 (61%)	0.092
Slight problems washing or dressing	17 (4.5%)	25 (7.1%)	
Moderate problems washing or dressing	11 (2.9%)	13 (3.7%)	
Severe problems washing or dressing	6 (1.6%)	6 (1.7%)	
Unable to wash or dress	1 (0.3%)	3 (0.9%)	
Missing			

Missing	95 (25.3%)	90 (25.6%)	
<i>Usual activities (8 months)</i>			
No problems doing my usual activities	141 (37.5%)	138 (39.3%)	0.591
Slight problems doing my usual activities	90 (23.9%)	66 (18.8%)	
Moderate problems doing my usual activities	36 (9.6%)	34 (9.7%)	
Severe problems doing my usual activities	11 (2.9%)	18 (5.1%)	
Unable to do my usual activities	4 (1.1%)	6 (1.7%)	
Missing	94 (25%)	89 (25.4%)	
<i>Pain and discomfort (8 months)</i>			
No pain or discomfort	58 (15.4%)	44 (12.5%)	0.309
Slight pain or discomfort	113 (30.1%)	97 (27.6%)	
Moderate pain or discomfort	80 (21.3%)	80 (22.8%)	
Severe pain or discomfort	24 (6.4%)	32 (9.1%)	
Extreme pain or discomfort	7 (1.9%)	9 (2.6%)	
Missing	94 (25%)	89 (25.4%)	
<i>Anxiety and depression (8 months)</i>			
Not anxious or depressed	102 (27.1%)	84 (23.9%)	0.342
Slightly anxious or depressed	103 (27.4%)	96 (27.4%)	
Moderately anxious or depressed	50 (13.3%)	50 (14.2%)	
Severely anxious or depressed	19 (5.1%)	20 (5.7%)	
Extremely anxious or depressed	7 (1.9%)	12 (3.4%)	
Missing	95 (25.3%)	89 (25.4%)	
<i>Mobility (12 months)</i>			
No problems in walking	200 (53.2%)	179 (51%)	0.543
Slight problems in walking	58 (15.4%)	47 (13.4%)	
Moderate problems in walking	28 (7.4%)	38 (10.8%)	
Severe problems in walking	13 (3.5%)	13 (3.7%)	
Unable to walk	3 (0.8%)	5 (1.4%)	
Missing	74 (19.7%)	69 (19.7%)	
<i>Self-care (12 months)</i>			
No problems washing or dressing	249 (66.2%)	231 (65.8%)	0.952
Slight problems washing or dressing	28 (7.4%)	32 (9.1%)	
Moderate problems washing or dressing	17 (4.5%)	11 (3.1%)	
Severe problems washing or dressing	8 (2.1%)	7 (2%)	
Unable to wash or dress	0 (0%)	1 (0.3%)	
Missing	74 (19.7%)	69 (19.7%)	
<i>Usual activities (12 months)</i>			
No problems doing my usual activities	156 (41.5%)	145 (41.3%)	1
Slight problems doing my usual activities	89 (23.7%)	76 (21.7%)	
Moderate problems doing my usual activities	39 (10.4%)	43 (12.3%)	
Severe problems doing my usual activities	14 (3.7%)	11 (3.1%)	
Unable to do my usual activities	4 (1.1%)	7 (2%)	
Missing	74 (19.7%)	69 (19.7%)	
<i>Pain and discomfort (12 months)</i>			
No pain or discomfort	61 (16.2%)	48 (13.7%)	0.369
Slight pain or discomfort	122 (32.4%)	108 (30.8%)	
Moderate pain or discomfort	84 (22.3%)	90 (25.6%)	

Severe pain or discomfort	30 (8%)	33 (9.4%)	
Extreme pain or discomfort	5 (1.3%)	4 (1.1%)	
Missing	74 (19.7%)	68 (19.4%)	
<i>Anxiety and depression (12 months)</i>			
Not anxious or depressed	128 (34%)	92 (26.2%)	0.016
Slightly anxious or depressed	104 (27.7%)	94 (26.8%)	
Moderately anxious or depressed	43 (11.4%)	71 (20.2%)	
Severely anxious or depressed	18 (4.8%)	11 (3.1%)	
Extremely anxious or depressed	8 (2.1%)	15 (4.3%)	
Missing	75 (19.9%)	68 (19.4%)	

Table S 8: SF-12 version 2 dimensions scores

Responses to SF-12 dimensions	Intervention	Usual care	P-value
<i>In general, would you say your health is? (baseline)</i>			
Excellent	13 (3.5%)	10 (2.8%)	0.769
Very good	71 (18.9%)	65 (18.5%)	
Good	156 (41.5%)	127 (36.2%)	
Fair	85 (22.6%)	97 (27.6%)	
Poor	38 (10.1%)	45 (12.8%)	
Missing	13 (3.5%)	7 (2%)	
<i>Moderate activities, such as moving a table, pushing (baseline)</i>			
Yes, limited a lot	49 (13%)	60 (17.1%)	0.357
Yes, limited a little	131 (34.8%)	123 (35%)	
No, not limited at all	184 (48.9%)	161 (45.9%)	
<i>Climbing several flights of stairs (baseline)</i>			
Yes, limited a lot	67 (17.8%)	82 (23.4%)	0.254
Yes, limited a little	118 (31.4%)	108 (30.8%)	
No, not limited at all	179 (47.6%)	153 (43.6%)	
<i>Physical health, accomplished less than you would like (baseline)</i>			
All of the time	41 (10.9%)	40 (11.4%)	1
Most of the time	65 (17.3%)	76 (21.7%)	
Some of the time	126 (33.5%)	110 (31.3%)	
A little of the time	82 (21.8%)	71 (20.2%)	
None of the time	50 (13.3%)	47 (13.4%)	
Missing	12 (3.2%)	7 (2%)	
<i>Physical health, were limited in the kind of work or other activities (baseline)</i>			
All of the time	38 (10.1%)	32 (9.1%)	0.349
Most of the time	54 (14.4%)	67 (19.1%)	
Some of the time	118 (31.4%)	97 (27.6%)	
A little of the time	75 (19.9%)	86 (24.5%)	
None of the time	74 (19.7%)	60 (17.1%)	
Missing	17 (4.5%)	9 (2.6%)	
<i>Emotional problems, accomplished less than you would like (baseline)</i>			
All of the time	30 (8%)	25 (7.1%)	0.092
Most of the time	73 (19.4%)	69 (19.7%)	
Some of the time	85 (22.6%)	100 (28.5%)	
A little of the time	80 (21.3%)	81 (23.1%)	

None of the time	95 (25.3%)	71 (20.2%)	
Missing	13 (3.5%)	5 (1.4%)	
<i>Emotional problems, did work or other activities less carefully than usual (baseline)</i>			
All of the time	23 (6.1%)	18 (5.1%)	0.233
Most of the time	52 (13.8%)	48 (13.7%)	
Some of the time	85 (22.6%)	97 (27.6%)	
A little of the time	89 (23.7%)	88 (25.1%)	
None of the time	114 (30.3%)	93 (26.5%)	
Missing	13 (3.5%)	7 (2%)	
<i>How much did pain interfere with your normal? (baseline)</i>			
Not at all	25 (6.6%)	23 (6.6%)	1
A little bit	103 (27.4%)	88 (25.1%)	
Moderately	97 (25.8%)	88 (25.1%)	
Quite a bit	101 (26.9%)	105 (29.9%)	
Extremely	38 (10.1%)	42 (12%)	
Missing	12 (3.2%)	5 (1.4%)	
<i>Have you felt calm and peaceful? (baseline)</i>			
All of the time	6 (1.6%)	1 (0.3%)	0.146
Most of the time	62 (16.5%)	63 (17.9%)	
Some of the time	117 (31.1%)	120 (34.2%)	
A little of the time	125 (33.2%)	116 (33%)	
None of the time	53 (14.1%)	45 (12.8%)	
Missing	13 (3.5%)	6 (1.7%)	
<i>Did you have a lot of energy? (baseline)</i>			
All of the time	1 (0.3%)	3 (0.9%)	0.579
Most of the time	35 (9.3%)	31 (8.8%)	
Some of the time	113 (30.1%)	111 (31.6%)	
A little of the time	135 (35.9%)	117 (33.3%)	
None of the time	80 (21.3%)	83 (23.6%)	
Missing	12 (3.2%)	6 (1.7%)	
<i>Have you felt downhearted and low? (baseline)</i>			
All of the time	18 (4.8%)	23 (6.6%)	0.702
Most of the time	85 (22.6%)	85 (24.2%)	
Some of the time	125 (33.2%)	109 (31.1%)	
A little of the time	95 (25.3%)	94 (26.8%)	
None of the time	40 (10.6%)	34 (9.7%)	
Missing	13 (3.5%)	6 (1.7%)	
<i>Social activities (baseline)</i>			
All of the time	24 (6.4%)	22 (6.3%)	1
Most of the time	74 (19.7%)	67 (19.1%)	
Some of the time	105 (27.9%)	113 (32.2%)	
A little of the time	94 (25%)	96 (27.4%)	
None of the time	66 (17.6%)	46 (13.1%)	
Missing	13 (3.5%)	7 (2%)	
<i>In general, would you say your health is? (4 months)</i>			
Excellent	10 (2.7%)	4 (1.1%)	0.193
Very good	60 (16%)	56 (16%)	
Good	96 (25.5%)	95 (27.1%)	
Fair	66 (17.6%)	64 (18.2%)	
Poor	15 (4%)	21 (6%)	
Missing	129 (34.3%)	111 (31.6%)	
<i>Moderate activities, such as moving a table, pushing (4 months)</i>			

Yes, limited a lot	30 (8%)	41 (11.7%)	0.574
Yes, limited a little	82 (21.8%)	74 (21.1%)	
No, not limited at all	136 (36.2%)	124 (35.3%)	
<i>Climbing several flights of stairs (4 months)</i>			
Yes, limited a lot	41 (10.9%)	41 (11.7%)	0.188
Yes, limited a little	71 (18.9%)	84 (23.9%)	
No, not limited at all	132 (35.1%)	114 (32.5%)	
<i>Physical health, accomplished less than you would like (4 months)</i>			
All of the time	21 (5.6%)	21 (6%)	0.963
Most of the time	25 (6.6%)	37 (10.5%)	
Some of the time	85 (22.6%)	63 (17.9%)	
A little of the time	67 (17.8%)	72 (20.5%)	
None of the time	50 (13.3%)	47 (13.4%)	
Missing	128 (34%)	111 (31.6%)	
<i>Physical health, were limited in the kind of work or other activities (4 months)</i>			
All of the time	23 (6.1%)	23 (6.6%)	0.644
Most of the time	23 (6.1%)	34 (9.7%)	
Some of the time	68 (18.1%)	51 (14.5%)	
A little of the time	66 (17.6%)	73 (20.8%)	
None of the time	66 (17.6%)	59 (16.8%)	
Missing	130 (34.6%)	111 (31.6%)	
<i>Emotional problems, accomplished less than you would like (4 months)</i>			
All of the time	12 (3.2%)	15 (4.3%)	0.087
Most of the time	34 (9%)	41 (11.7%)	
Some of the time	56 (14.9%)	60 (17.1%)	
A little of the time	63 (16.8%)	63 (17.9%)	
None of the time	82 (21.8%)	62 (17.7%)	
Missing	129 (34.3%)	110 (31.3%)	
<i>Emotional problems, did work or other activities less carefully than usual (4 months)</i>			
All of the time	8 (2.1%)	11 (3.1%)	0.205
Most of the time	21 (5.6%)	31 (8.8%)	
Some of the time	57 (15.2%)	53 (15.1%)	
A little of the time	64 (17%)	65 (18.5%)	
None of the time	97 (25.8%)	80 (22.8%)	
Missing	129 (34.3%)	111 (31.6%)	
<i>How much did pain interfere with your normal? (4 months)</i>			
Not at all	35 (9.3%)	29 (8.3%)	0.596
A little bit	90 (23.9%)	91 (25.9%)	
Moderately	57 (15.2%)	52 (14.8%)	
Quite a bit	48 (12.8%)	50 (14.2%)	
Extremely	17 (4.5%)	17 (4.8%)	
Missing	129 (34.3%)	112 (31.9%)	
<i>Have you felt calm and peaceful? How much did pain interfere with your normal? (4 months)</i>			
All of the time	8 (2.1%)	1 (0.3%)	0.048
Most of the time	57 (15.2%)	56 (16%)	
Some of the time	88 (23.4%)	91 (25.9%)	
A little of the time	67 (17.8%)	68 (19.4%)	
None of the time	27 (7.2%)	25 (7.1%)	
Missing	129 (34.3%)	110 (31.3%)	

<i>Did you have a lot of energy? (4 months)</i>			
All of the time	4 (1.1%)	2 (0.6%)	0.704
Most of the time	33 (8.8%)	32 (9.1%)	
Some of the time	82 (21.8%)	83 (23.6%)	
A little of the time	85 (22.6%)	80 (22.8%)	
None of the time	43 (11.4%)	44 (12.5%)	
Missing	129 (34.3%)	110 (31.3%)	
<i>Have you felt downhearted and low? (4 months)</i>			
All of the time	9 (2.4%)	13 (3.7%)	0.24
Most of the time	44 (11.7%)	51 (14.5%)	
Some of the time	66 (17.6%)	69 (19.7%)	
A little of the time	81 (21.5%)	72 (20.5%)	
None of the time	48 (12.8%)	36 (10.3%)	
Missing	128 (34%)	110 (31.3%)	
<i>Social activities (4 months)</i>			
All of the time	15 (4%)	10 (2.8%)	0.455
Most of the time	32 (8.5%)	47 (13.4%)	
Some of the time	65 (17.3%)	73 (20.8%)	
A little of the time	65 (17.3%)	48 (13.7%)	
None of the time	71 (18.9%)	63 (17.9%)	
Missing	128 (34%)	110 (31.3%)	
<i>In general, would you say your health is? (8 months)</i>			
Excellent	10 (2.7%)	7 (2%)	0.792
Very good	65 (17.3%)	51 (14.5%)	
Good	99 (26.3%)	93 (26.5%)	
Fair	56 (14.9%)	51 (14.5%)	
Poor	19 (5.1%)	21 (6%)	
Missing	127 (33.8%)	128 (36.5%)	
<i>Moderate activities, such as moving a table, pushing (8 months)</i>			
Yes, limited a lot	31 (8.2%)	30 (8.5%)	0.843
Yes, limited a little	74 (19.7%)	67 (19.1%)	
No, not limited at all	144 (38.3%)	126 (35.9%)	
<i>Climbing several flights of stairs (8 months)</i>			
Yes, limited a lot	36 (9.6%)	30 (8.5%)	0.711
Yes, limited a little	73 (19.4%)	71 (20.2%)	
No, not limited at all	140 (37.2%)	119 (33.9%)	
<i>Physical health, accomplished less than you would like (8 months)</i>			
All of the time	14 (3.7%)	19 (5.4%)	0.552
Most of the time	29 (7.7%)	28 (8%)	
Some of the time	90 (23.9%)	62 (17.7%)	
A little of the time	60 (16%)	69 (19.7%)	
None of the time	56 (14.9%)	44 (12.5%)	
Missing	127 (33.8%)	129 (36.8%)	
<i>Physical health, were limited in the kind of work or other activities (8 months)</i>			
All of the time	14 (3.7%)	18 (5.1%)	0.794
Most of the time	25 (6.6%)	22 (6.3%)	
Some of the time	78 (20.7%)	57 (16.2%)	
A little of the time	67 (17.8%)	63 (17.9%)	
None of the time	65 (17.3%)	61 (17.4%)	
Missing	127 (33.8%)	130 (37%)	
<i>Emotional problems, accomplished less than you would like (8</i>			

<i>months)</i>			
All of the time	11 (2.9%)	14 (4%)	0.538
Most of the time	30 (8%)	29 (8.3%)	
Some of the time	64 (17%)	64 (18.2%)	
A little of the time	70 (18.6%)	57 (16.2%)	
None of the time	73 (19.4%)	59 (16.8%)	
Missing	128 (34%)	128 (36.5%)	
<i>Emotional problems, did work or other activities less carefully than usual (8 months)</i>			
All of the time	7 (1.9%)	11 (3.1%)	0.775
Most of the time	24 (6.4%)	20 (5.7%)	
Some of the time	50 (13.3%)	56 (16%)	
A little of the time	78 (20.7%)	59 (16.8%)	
None of the time	88 (23.4%)	75 (21.4%)	
Missing	129 (34.3%)	130 (37%)	
<i>How much did pain interfere with your normal? (8 months)</i>			
Not at all	33 (8.8%)	37 (10.5%)	0.363
A little bit	104 (27.7%)	74 (21.1%)	
Moderately	61 (16.2%)	41 (11.7%)	
Quite a bit	45 (12%)	51 (14.5%)	
Extremely	6 (1.6%)	19 (5.4%)	
Missing	127 (33.8%)	129 (36.8%)	
<i>Have you felt calm and peaceful? (8 months)</i>			
All of the time	3 (0.8%)	4 (1.1%)	0.883
Most of the time	66 (17.6%)	59 (16.8%)	
Some of the time	90 (23.9%)	74 (21.1%)	
A little of the time	64 (17%)	59 (16.8%)	
None of the time	26 (6.9%)	27 (7.7%)	
Missing	127 (33.8%)	128 (36.5%)	
<i>Did you have a lot of energy? (8 months)</i>			
All of the time	0 (0%)	4 (1.1%)	0.105
Most of the time	45 (12%)	33 (9.4%)	
Some of the time	83 (22.1%)	71 (20.2%)	
A little of the time	76 (20.2%)	73 (20.8%)	
None of the time	45 (12%)	42 (12%)	
Missing	127 (33.8%)	128 (36.5%)	
<i>Have you felt downhearted and low? (8 months)</i>			
All of the time	9 (2.4%)	13 (3.7%)	0.297
Most of the time	35 (9.3%)	40 (11.4%)	
Some of the time	81 (21.5%)	67 (19.1%)	
A little of the time	82 (21.8%)	74 (21.1%)	
None of the time	42 (11.2%)	29 (8.3%)	
Missing	127 (33.8%)	128 (36.5%)	
<i>Social activities (8 months)</i>			
All of the time	12 (3.2%)	21 (6%)	0.078
Most of the time	23 (6.1%)	23 (6.6%)	
Some of the time	60 (16%)	58 (16.5%)	
A little of the time	80 (21.3%)	65 (18.5%)	
None of the time	73 (19.4%)	56 (16%)	
Missing	128 (34%)	128 (36.5%)	
<i>In general, would you say your health is? (12 months)</i>			
Excellent	8 (2.1%)	7 (2%)	1
Very good	52 (13.8%)	38 (10.8%)	

Good	111 (29.5%)	96 (27.4%)	
Fair	74 (19.7%)	64 (18.2%)	
Poor	18 (4.8%)	27 (7.7%)	
Missing	113 (30.1%)	119 (33.9%)	
<i>Moderate activities, such as moving a table, pushing (12 months)</i>			
Yes, limited a lot	27 (7.2%)	34 (9.7%)	0.666
Yes, limited a little	95 (25.3%)	69 (19.7%)	
No, not limited at all	139 (37%)	129 (36.8%)	
<i>Climbing several flights of stairs (12 months)</i>			
Yes, limited a lot	44 (11.7%)	38 (10.8%)	0.315
Yes, limited a little	72 (19.1%)	76 (21.7%)	
No, not limited at all	144 (38.3%)	116 (33%)	
<i>Physical health, accomplished less than you would like (12 months)</i>			
All of the time	7 (1.9%)	15 (4.3%)	0.928
Most of the time	53 (14.1%)	39 (11.1%)	
Some of the time	70 (18.6%)	61 (17.4%)	
A little of the time	76 (20.2%)	65 (18.5%)	
None of the time	57 (15.2%)	52 (14.8%)	
Missing	113 (30.1%)	119 (33.9%)	
<i>Physical health, were limited in the kind of work or other activities (12 months)</i>			
All of the time	8 (2.1%)	13 (3.7%)	0.902
Most of the time	41 (10.9%)	34 (9.7%)	
Some of the time	59 (15.7%)	56 (16%)	
A little of the time	77 (20.5%)	58 (16.5%)	
None of the time	77 (20.5%)	70 (19.9%)	
Missing	114 (30.3%)	120 (34.2%)	
<i>Emotional problems, accomplished less than you would like (12 months)</i>			
All of the time	10 (2.7%)	14 (4%)	0.09
Most of the time	29 (7.7%)	30 (8.5%)	
Some of the time	65 (17.3%)	54 (15.4%)	
A little of the time	66 (17.6%)	68 (19.4%)	
None of the time	93 (24.7%)	64 (18.2%)	
Missing	113 (30.1%)	121 (34.5%)	
<i>Emotional problems, did work or other activities less carefully than usual (12 months)</i>			
All of the time	7 (1.9%)	13 (3.7%)	0.97
Most of the time	25 (6.6%)	20 (5.7%)	
Some of the time	59 (15.7%)	56 (16%)	
A little of the time	76 (20.2%)	59 (16.8%)	
None of the time	96 (25.5%)	83 (23.6%)	
Missing	113 (30.1%)	120 (34.2%)	
<i>How much did pain interfere with your normal? (12 months)</i>			
Not at all	49 (13%)	34 (9.7%)	0.298
A little bit	102 (27.1%)	85 (24.2%)	
Moderately	61 (16.2%)	39 (11.1%)	
Quite a bit	41 (10.9%)	57 (16.2%)	
Extremely	10 (2.7%)	16 (4.6%)	
Missing	113 (30.1%)	120 (34.2%)	
<i>Have you felt calm and peaceful? (12 months)</i>			
All of the time	6 (1.6%)	7 (2%)	0.813



Most of the time	85 (22.6%)	62 (17.7%)	
Some of the time	90 (23.9%)	73 (20.8%)	
A little of the time	57 (15.2%)	70 (19.9%)	
None of the time	25 (6.6%)	19 (5.4%)	
Missing	113 (30.1%)	120 (34.2%)	
<i>Did you have a lot of energy? (12 months)</i>			
All of the time	5 (1.3%)	7 (2%)	0.603
Most of the time	49 (13%)	36 (10.3%)	
Some of the time	95 (25.3%)	73 (20.8%)	
A little of the time	79 (21%)	81 (23.1%)	
None of the time	35 (9.3%)	34 (9.7%)	
Missing	113 (30.1%)	120 (34.2%)	
<i>Have you felt downhearted and low? (12 months)</i>			
All of the time	14 (3.7%)	15 (4.3%)	0.94
Most of the time	34 (9%)	47 (13.4%)	
Some of the time	74 (19.7%)	59 (16.8%)	
A little of the time	96 (25.5%)	72 (20.5%)	
None of the time	45 (12%)	38 (10.8%)	
Missing	113 (30.1%)	120 (34.2%)	
<i>Social activities (12 months)</i>			
All of the time	10 (2.7%)	13 (3.7%)	0.455
Most of the time	30 (8%)	29 (8.3%)	
Some of the time	71 (18.9%)	66 (18.8%)	
A little of the time	79 (21%)	71 (20.2%)	
None of the time	73 (19.4%)	52 (14.8%)	
Missing	113 (30.1%)	120 (34.2%)	

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