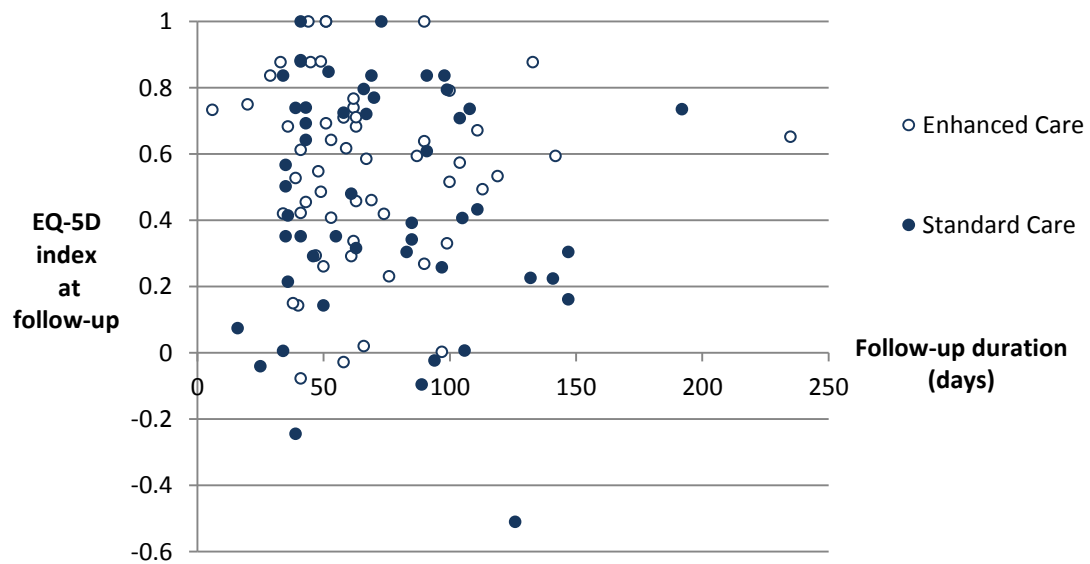


## Supplementary tables and figures

### Supplementary Fig 1

EQ-5D-5L scores and time of completion of follow up questionnaire.

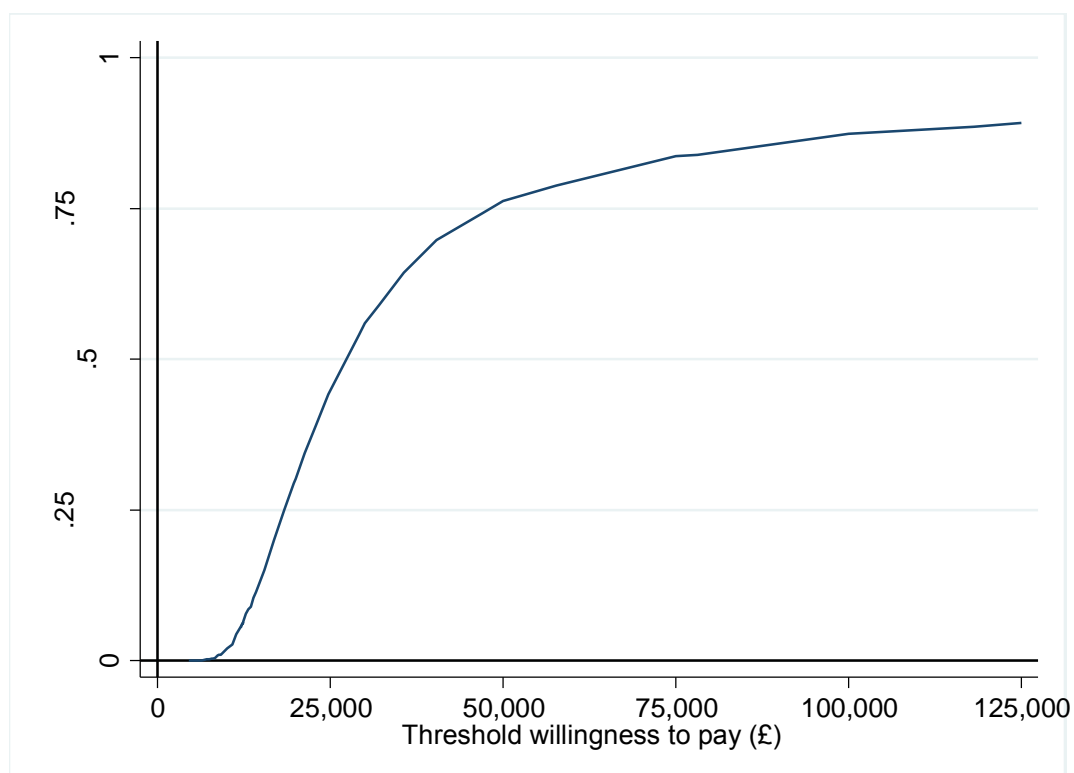


## Supplementary Fig 2

CEAC for the London Homeless Pathway intervention.

CEAC curve based on reasonable assumptions – specifically all staff costs (including wider economic costs are included) and the changes in EQ-5D scores progress smoothly until follow up and then remain constant for a duration given by the difference between the longest duration of follow up and their follow up duration.

The figure shows that if the NHS is willing to pay £20,000 per QALY, there is a 30% chance that the intervention is cost-effective relative to the usual care that homeless patients could expect to receive. This probability rises to 56% and 76% at a willingness to pay of £30,000 and £50,000 per QALY respectively.



## Supplementary Table 1

Medical and Psychiatric conditions at baseline in homeless patients participating in the study

Description	Control N	Control %	Intervention N	Intervention %
<b>Aetiology</b>				
• Infection	75	48.1%	64	39.3%
• Degenerative Includes coronary artery disease and CVA	55	35.3%	61	37.4%
• Alcohol related	36	23.1%	51	31.3%
• Investigation	36	23.1%	38	23.3%
• Metabolic	23	14.7%	22	13.5%
• Trauma	13	8.3%	16	9.8%
• Psychological	4	2.6%	10	6.1%
• Tumour	6	3.8%	6	3.7%
• Pregnancy	1	0.6%	0	0
<b>Organ system</b>				
• Liver	50	32.1%	60	36.8%
• Pulmonary	45	28.8%	50	30.7%
• Musculoskeletal	30	19.2%	30	18.4%
• CNS	29	18.6%	29	17.8%
• CVS	28	17.9%	30	18.4%
• Endocrine	19	12.2%	20	12.3%
• Skin	18	11.5%	17	10.4%
• GI	15	9.6%	20	12.3%
• GU	9	5.8%	10	6.1%
• Haematological	6	3.8%	3	1.8%
• Other	12	7.7%	6	3.7%
<b>Special interest</b>				
• Illicit drugs	7	4.5%	22	13.5%
• DVT	10	6.4%	12	7.4%
• Leg ulcer	12	7.7%	9	5.5%
<b>Psychiatric disorders</b>				
• Depression	84	74.3%	91	74.0%
• Anxiety	13	11.5%	10	8.1%
• Schizophrenia	8	7.1%	12	9.8%
• Psychosis	9	8.0%	7	5.7%
• Personality Disorder	7	6.2%	8	6.5%
• PTSD	6	5.3%	4	3.3%
• Bipolar	4	3.5%	5	4.1%
• Suicide	5	4.4%	2	1.6%
• Drugs	1	0.9%	3	2.4%
• Alcohol	2	1.8%	1	0.8%
• Other	15	13.3%	21	17.1%

**Supplementary Table 2****Re-attendance at the initial hospital by intervention arm.**

Re-attendances in the Accident and Emergency Department over the three months post discharge (London only) are shown using a logistic regression model adjusting for age and sex as well as re-admissions for both hospitals including all re-admissions or emergency only re-admissions (both analysed using a logistic regression analysis adjusting for age, sex and site).

	Number of patients	Control (%)	Intervention (%)	Adjusted OR (95% CI)
Attendance to A&E within 90 days of index discharge	310	57 (37.0%)	58 (37.2%)	1.01 [0.64 to 1.60]
All re-admissions to hospital within 30 days of index discharge	410	50 (24.5%)	44 (21.4%)	0.83 [0.52 to 1.33]
All re- admissions to hospital within 90 days of index discharge	410	68 (33.3%)	69 (33.5%)	1.02 [0.67 to 1.54]
Emergency only re-admissions to hospital within 30 days of index discharge	410	41 (20.1%)	38 (18.5%)	0.90 [0.55 to 1.47]
Emergency only re- admission to hospital within 90 days of index discharge	410	50 (24.5%)	58 (28.2%)	1.22 [0.78 to 1.90]

**Supplementary Table 3**

**Baseline comparison of patients with and without 6 weeks follow-up questionnaire**

	Follow-up questionnaire available				Statistical Test	p-value
	No (N = 300)		Yes (N = 110)			
	No.	%	No.	%		
Allocated treatment					p( $\chi^2$ )	0.699
• Standard care	151	50.3	53	48.2		
• GP supported care	149	49.7	57	51.8		
Site					p( $\chi^2$ )	0.320
• London	223	74.3	87	79.1		
• Brighton	77	25.7	23	20.9		
Mean Age (SD)	42.1 (11.5)		42.1 (12.2)		t-test	>0.999
Gender					p( $\chi^2$ )	0.690
• Male	243	81	91	82.7		
• Female	57	19	19	17.3		
Nationality					p( $\chi^2$ )	0.627
• UK	212	70.7	79	71.8		
• EU	61	20.3	21	19.1		
• other	23	7.7	10	9.1		
• Not known	4	1.3	0	0		
Asylum seeker Y/N					p( $\chi^2$ )	0.683
• No	289	96.3	107	97.3		
• Yes	9	3	3	2.7		
• Not known	2	0.7	0	0		
Refugee Y/N					p( $\chi^2$ )	0.656
• No	291	97	108	98.2		
• Yes	7	2.3	2	1.8		
• Not known	2	0.7	0	0		
Any long-term medical conditions?					p( $\chi^2$ )	0.120
• No	59	19.7	21	19.1		
• Yes	230	76.7	89	80.9		
• Not known	11	3.7	0	0		
Any long-term mental health problems?					p( $\chi^2$ )	0.078
• No	114	38	51	46.4		
• Yes	177	59	59	53.6		
• Not known	9	3	0	0		
Housing status On admission					Kruskal's gamma	0.082
• Street	141	47.0	37	33.6		
• Unstable address	88	29.3	44	40		
• B&B/Hotel	9	3.0	6	5.5		
• Unsupported hostel	10	3.3	2	1.8		
• Supported hostel	40	13.3	20	18.2		
• Stable address	4	1.3	1	0.9		
• Not known	8	2.7	0	0		
Time since permanent accommodation (cat)						

<ul style="list-style-type: none"> <li>• less than 1 month</li> <li>• 1 to 12 months</li> <li>• 1-5 years</li> <li>• more than 5 years</li> <li>• Not known</li> </ul>	43	14.3	25	22.7	Kruskal's gamma	0.077
	54	18	25	22.7		
	86	28.7	26	23.6		
	59	19.7	21	19.1		
	58	19.3	13	11.8		
Number of hospital admission in 12mo						
<ul style="list-style-type: none"> <li>• None</li> <li>• 1</li> <li>• 2 to 9</li> <li>• 10 to 30</li> <li>• Not known</li> </ul>	47	15.7	13	11.8	Kruskal's gamma	0.087
	74	24.7	33	30		
	147	49	52	47.3		
	14	4.7	11	10		
	18	6	1	0.9		
Number of nights sleeping rough in 28d						
<ul style="list-style-type: none"> <li>• None</li> <li>• 1 to 6 days</li> <li>• 7 to 13 days</li> <li>• 14 to 20 days</li> <li>• 21 to 27 days</li> <li>• Every day</li> <li>• Not known</li> </ul>	126	42	69	62.7	Kruskal's gamma	0.081
	45	15	13	11.8		
	14	4.7	5	4.5		
	19	6.3	9	8.2		
	11	3.7	2	1.8		
	68	22.7	10	9.1		
	17	5.7	2	1.8		
Median EQ-5D-5L score						

## Supplementary Table 4

Staff costs for the additional staff involved in delivering the intervention

Cost description	Annual cost per Band 7 nurse	Cost category
Nursing staff (Band 7)		
Wages/salary	£38,800	Direct cost
Salary on-costs	£9,667	Direct cost
Qualifications	£9,356	Wider economic cost
Overheads - management, administration and estates staff	£9,257	Wider economic cost
Overheads - non-staff	£20,162	Wider economic cost
Capital overheads	£2,306	Wider economic cost
<b>Nursing direct costs: per nurse</b>	<b>£48,467</b>	
<b>Nursing direct costs + wider economic costs: per nurse</b>	<b>£89,548</b>	
GP sessions		
	£32,000	Direct cost
Additional wider economic costs	£21,560	Wider economic cost
<b>GP direct costs</b>	<b>£32,000</b>	
<b>GP total: direct costs + wider economic costs</b>	<b>£53,560</b>	

## Supplementary Table 5 – Follow-up health-related quality of life and follow-up duration

	Follow-up EQ-5D-5L™ score
<b>Follow-up duration</b>	-0.00051 (-0.62)
<b>Baseline EQ-5D-5L™ score</b>	0.218788 (2.21)
<b>Constant</b>	0.45136 (5.85)
<b>N</b>	103
<b>F (2, 100)</b>	2.63
<b>R<sup>2</sup></b>	0.0500
Figures in parentheses are t-statistics	