

Supplemental Digial Content Table 1: Mean and 95% Confidence Intervals for individually calculated reduction in on-going costs and life-time savings based on period life expectancy																						
	Life expexctancy group															Whole sample minus PDOC			Whole Life expectancy sample			
	0			1			2			3			4			(Active rehabilitation sample only)			(Life expectancy groups 0-4)			
	PVS n=289			Cannot walk, Fed by others n=444			Cannot walk, Self feeds n=961			Some walking n=648			Walks alone n=1235			n=3289			n=3578			
	Mean	95% Confidence Interval Lower Upper		Mean	95% Confidence Interval Lower Upper		Mean	95% Confidence Interval Lower Upper		Mean	95% Confidence Interval Lower Upper		Mean	95% Confidence Interval Lower Upper		Mean	95% Confidence Interval Lower Upper		Mean	95% Confidence Interval Lower Upper		
NPDS total scores	n=259 Missing 30 (10%)			n=418 Missing 31 (3%)			n=935 Missing 26 (3%)			n=633 Missing 15 (2%)			n=1204 Missing 31 (3%)			n= 3190 Missing n=99 (3%)			n= 3450 Missing n=128 (4%)			
Admission	55.2	54.0	56.4	51.8	50.9	52.9	40.5	39.4	41.5	27.5	26.2	28.8	20.6	19.7	21.5	31.9	31.2	32.6	33.6	33.0	34.4	
Discharge	54.1	53.1	55.3	48.6	47.5	49.8	26.5	25.5	27.5	10.6	10.0	11.2	7.6	7.2	8.0	19.1	18.5	19.7	21.7	21.1	22.4	
Change	-1.0	-2.1	0.0	-3.2	-4.3	-2.1	-14.0	-15.1	-13.1	-16.9	-18.2	-15.6	-13.0	-13.8	-12.2	-12.8	-13.3	-12.3	-11.9	-12.4	-11.4	
NPCNA-estimated Care Hours/week																						
Admission	62.0	61.1	62.8	62.5	61.6	63.3	54.2	53.1	55.1	39.8	38.4	41.3	29.3	28.4	30.2	43.0	42.3	43.7	44.4	43.8	45.2	
Discharge	62.2	61.4	63.0	60.5	59.5	61.6	40.0	38.8	41.2	20.3	19.4	21.2	14.6	14.1	15.2	29.2	28.5	29.9	31.7	31.0	32.4	
Change	0.2	-0.5	1.0	-2.0	-2.9	-1.0	-14.2	-15.4	-13.0	-19.5	-21.0	-18.1	-14.6	-15.5	-13.8	-13.8	-14.4	-13.2	-12.8	-13.4	-12.2	
NPCNA-estimated care costs per week																						
Admission	£2,641	£2,581	£2,696	£2,518	£2,461	£2,575	£2,041	£1,984	£2,093	£1,440	£1,371	£1,511	£1,171	£1,129	£1,214	£1,655.84	£1,624.40	£1,687.86	£1,730	£1,699	£1,762	
Discharge	£2,618	£2,564	£2,676	£2,411	£2,346	£2,475	£1,423	£1,360	£1,484	£670	£627	£716	£550	£518	£582	£1,073.68	£1,042.63	£1,107.09	£1,190	£1,157	£1,225	
Reduction in care costs	£13	-£45	£75	£94	£28	£160	£624	£567	£685	£767	£694	£839	£643	£596	£691	£589	£556	£619	£545	£517	£573	
Cost data	n=249 Missing n=40 (14%)			n=404 Missing n=40 (9%)			n=900 Missing n=61 (6%)			n= 603 Missing n=45 (7%)			n=1103 Missing n=132 (11%)			n=3010 Missing n=279 (8%)			n=3259 Missing n=319 (9%)			
Episode_cost	£70,491	£64,648	£76,373	£70,073	£65,492	£74,515	£52,455	£49,779	£55,485	£31,266	£28,919	£33,627	£25,266	£23,785	£26,742	£40,612	£39,261	£41,957	£42,894	£41,512	£44,235	
Annual savings in care costs	£674	-£2,335	£3,924	£4,872	£1,462	£8,340	£32,468	£29,491	£35,597	£39,865	£36,102	£43,631	£33,443	£30,992	£35,937	£30,603	£28,934	£32,185	£28,317	£26,889	£29,802	
Time to offset cost of rehab (mths)				172.6	537.7	107.2	19.4	20.3	18.7	9.4	9.6	9.2	9.1	9.2	8.9	15.9	16.3	15.6	18.2	18.5	17.8	
Life-time savings computed individually	Mean	95% Confidence Interval Lower Upper		Mean	95% Confidence Interval Lower Upper		Mean	95% Confidence Interval Lower Upper		Mean	95% Confidence Interval Lower Upper		Mean	95% Confidence Interval Lower Upper		Mean	95% Confidence Interval Lower Upper		Mean	95% Confidence Interval Lower Upper		
Period life expectancy																						
TBI adjusted remaining yrs of life (period)	8.2	7.9	8.5	12.6	11.9	13.2	19.0	18.3	19.8	22.6	21.5	23.6	29.4	28.5	30.2	22.7	22.2	23.2	21.6	21.1	22.0	
Total life savings (period)	£11,024	-£15,131	£37,624	£63,523	£14,748	£106,663	£683,126	£605,005	£765,522	£956,668	£843,525	£1,073,267	£1,029,093	£939,468	£1,115,898	£781,541	£734,998	£832,604	£722,670	£679,189	£765,372	
Net total life savings (period)	-£59,467	-£85,667	-£31,587	-£6,549	-£55,576	£35,388	£630,671	£553,142	£712,992	£925,402	£813,291	£1,042,436	£1,003,827	£915,448	£1,090,202	£740,929	£694,621	£791,256	£679,776	£635,972	£722,786	
Projected life expectancy																						
TBI adjusted remaining yrs of life (projected)	9.1	8.7	9.5	14.0	13.1	14.7	21.1	20.3	21.9	25.1	23.8	26.3	32.6	31.7	33.5	25.2	24.6	25.7	23.9	23.4	24.5	
Total life savings (projected)	£12,239	-£16,978	£44,360	£70,731	£21,014	£122,453	£757,862	£672,469	£846,470	£1,060,824	£939,973	£1,185,210	£1,142,493	£1,051,044	£1,243,719	£867,275	£817,558	£922,542	£801,947	£754,994	£856,034	
Net total life savings projected)	-£58,252	-£87,243	-£25,393	£658	-£49,254	£53,652	£705,407	£619,280	£793,825	£1,029,558	£907,030	£1,154,949	£1,117,227	£1,026,145	£1,218,692	£826,663	£775,979	£880,815	£759,052	£711,993	£812,754	
Calculation sheet																						
Individually calculated ife time savings (period)																						
Episode_cost	£70,491	£64,648	£76,373	£70,073	£65,492	£74,515	£52,455	£49,779	£55,485	£31,266	£28,919	£33,627	£25,266	£23,785	£26,742	£40,612	£39,261	£41,957	£42,894	£41,512	£44,235	
Annual savings	£674	-£2,335	£3,924	£4,872	£1,462	£8,340	£32,468	£29,491	£35,597	£39,865	£36,102	£43,631	£33,443	£30,992	£35,937	£30,603	£28,934	£32,185	£28,317	£26,889	£29,802	
Total life savings (period)	£11,024	-£15,131	£37,624	£63,523	£14,748	£106,663	£683,126	£605,005	£765,522	£956,668	£843,525	£1,073,267	£1,029,093	£939,468	£1,115,898	£781,541	£734,998	£832,604	£722,670	£679,189	£765,372	
Net total life savings (period)	-£59,467	-£85,667	-£31,587	-£6,549	-£55,576	£35,388	£630,671	£553,142	£712,992	£925,402	£813,291	£1,042,436	£1,003,827	£915,448	£1,090,202	£740,929	£694,621	£791,256	£679,776	£635,972	£722,786	
Discount rate r (1.5%)	0.015																					
Discount rate r (3.5%)	0.035																					
Average annual life savings	-£7,255	-£10,886	-£3,695	-£521	-£4,676	£2,672	£33,120	£30,190	£35,992	£40,912	£37,748	£44,166	£34,169	£32,070	£36,155	£32,672	£31,303	£34,148	£31,513	£30,160	£32,783	
Net total life savings (period) discounted at 1.5%	-£55,566	-£80,238	-£29,439	-£5,928	-£50,559	£31,879	£545,075	£480,519	£612,880	£779,856	£690,578	£872,442	£807,045	£740,242	£871,815	£624,141	£587,141	£664,231	£577,103	£541,762	£611,560	
Net total life savings (period) discounted at 3.5%	-£50,932	-£73,767	-£26,898	-£5,226	-£44,837	£27,937	£454,780	£403,313	£508,139	£632,076	£564,551	£701,628	£620,919	£573,084	£666,904	£505,634	£477,512	£536,008	£471,685	£444,534	£497,940	
Net total for analysis sample																£2,436,916,242 n=3289			£2,432,238,192 n=3578			
Extrapolated net total for TBI specialist rehabilitation cohort																£4,115,861,881 n=5555			£4,107,885,801 n=6043			
Individually calculated life time savings (Projected)																						
Total life savings (projected)	£12,239	-£16,978	£44,360	£70,731	£21,014	£122,453	£757,862	£672,469	£846,470	£1,060,824	£939,973	£1,185,210	£1,142,493	£1,051,044	£1,243,719	£867,275	£817,558	£922,542	£801,947	£754,994	£856,034	
Net total life savings (projected)	-£58,252	-£87,243	-£25,393	£658	-£49,254	£53,652	£705,407	£619,280	£793,825	£1,029,558	£907,030	£1,154,949	£1,117,227	£1,026,145	£1,218,692	£826,663	£775,979	£880,815	£759,052	£711,993	£812,754	
Average annual life savings	-£6,393	-£9,982	-£2,672	£47	-£3,755	£3,645	£33,446	£30,526	£36,195	£41,067	£38,042	£43,918	£34,254	£32,392	£36,403	£32,865	£31,518	£34,278	£31,760	£30,427	£33,174	
Net total life savings (period) discounted at 1.5%	-£54,069	-£81,197	-£23,503	£590	-£44,411	£47,823	£600,894	£530,531	£672,216	£852,864	£757,840	£948,581	£878,446	£812,028	£952,595	£684,394	£644,829	£726,470	£633,949	£596,733	£675,956	
Net total life savings (period) discounted at 3.5%	-£49,151	-£74,060	-£21,289	£514	-£38,963	£41,379	£493,037	£438,153	£547,835	£678,046	£608,311	£747,019	£660,009	£614,260	£711,308	£543,757	£514,454	£574,763	£508,636	£480,668	£539,793	
Net total for analysis sample																£2,718,895,493 n=3289			£2,715,889,337 n=3578			
Extrapolated net total for TBI specialist rehabilitation cohort																£4,592,114,461 n=5555			£4,586,953,399 n=6043			
	Where, F= Average annual life savings: this is calculated by dividing total life savings by TBI adjusted remaining yrs of life (period) r= discount rate n= TBI adjusted remaining yrs of life (period); i.e. the total number of years over which the cost is expected to be incurred															(Adjusted on a proportionate basis: 3289/3578= 92% 92% of 6043 = 5555)						