Online supplement for
Cost-Effectiveness of Preventing Depression in At-Risk Adolescents: Post-Intervention and Two-Year Follow-up

1. **Calculation of Depression-Free Days:** We calculated depression-free days (DFD) using the Child Depression Rating Scale-Revised (CDRS). This method has been used in prior studies of the cost-effectiveness of depression treatment in youth. To explore the robustness of the DFD calculation we also estimated DFD using the weekly Longitudinal Interval Follow-up Evaluation (LIFE). Both methods yielded similar results in terms of DFD and QALY estimation. Therefore, in our base-case analysis we report the DFD calculated using the CDRS as this method has been used in prior studies, allowing comparison to previous work.

Alternate Methods of Calculating Depression-Free Days

	Intervention	TAU	Difference[B]	p-value
Depression-Free Days				
CDRS[1]-DFD	222.64 (43.79)	211.36 (49.94)	12.03	.007
K-LIFE[2]-DFD	280.52 (63.64)	270.63 (61.47)	11.69	.029

1. Child Depression Rating Scale-Revised. (Poznanski EO, Freeman L, Mokros HB. Children's Depression Rating Scale - Revised. *Psychopharmacol Bull.* 1984; 21:979-989). 2. Schedule for Affective Disorders and Schizophrenia for School-Age Children – Present and Lifetime Version (Kaufman J, Birmaher B, Brent D, et al. Schedule for Affective Disorders and Schizophrenia for School-Age Children-Present and Lifetime Version (K-SADS-PL): initial reliability and validity data. *J Am Acad Child Adolesc Psychiatry.* 1997; 36(7):980-988.)

2. Sensitivity Analyses

Sensitivity analyses and secondary analyses examined whether CEA estimates were different using various parameters including varying the QALY weight used, excluding costs for inpatient use, and including the high cost outlier.

Adjusted means, differences, and incremental cost-effectiveness ratios (ICER) at 9 and 33 months

	CBP Mean (Std. Err.[a])			UC Mean (Std. Err.[a])			Difference (CBP-UC) Mean (Std. Err.[b])			ICER (95% CI[c])	
	Cost	Outcomes		Cost	Outcomes		Cost	Outcomes		Cost / DFD	Cost / QALY
		DFD	QALY		DFD	QALY		DFD	QALY		
RESULTS AT 9 MONTHS											
Varied QALY weights[e]											
0.5	1,189 (177)	NA	0.849 (0.008)	757 (171)	NA	0.827 (0.008)	436 (184)*	NA	0.021 (0.009)*	NA	**$19,646** (530-85,471)
0.7	1,189 (177)	NA	0.856 (0.005)	757 (171)	NA	0.842 (0.005)	436 (184)*	NA	0.012 (0.005)*	NA	**$32,744** (883-142,452)
Including highly influential high cost outlier (n=316)	1,354 (301)	230.4 (4.5)	0.852 (0.006)	617 (315)	219.0 (4.5)	0.835 (0.006)	737 (305)*	11.4 (4.9)*	0.016 (0.007)*	**$64** (12 – 554)	**$44,700** (8,356-383,817)
Outpatient costs only (n=315)	1093 (171)	231.1 (4.3)	0.853 (0.006)	731 (173)	218.8 (4.3)	0.835 (0.006)	362 (176)*	12.3 (4.9)*	0.018 (0.007)*	**$29** (-3-119)	**$20,329** (-2,234-82,662)
RESULTS AT 33 MONTHS											
Varied QALY weights[e]											
0.5	3,879 (667)	NA	2.565 (0.025)	3,305 (667)	NA	2.509 (0.024)	574 (738)	NA	0.056 (0.025)*	NA	**$10,229** (-19,993 – 95,966)
0.7	3,879 (667)	NA	2.606 (0.015)	3,305 (667)	NA	2.572 (0.015)	574 (738)	NA	0.034 (0.015)*	NA	**$17,049** (-33,321 – 159,943)
Including highly influential high cost outlier (n=316)	5,790 (1,529)	877.7 (16.6)	2.575 (0.018)	3,809 (1,554)	844.3 (17.7)	2.538 (0.020)	1,980 (1,801)	33.4 (17.8)*	0.037 (0.019)*	**$59** (-27-1,874)	**$53,383** (-24,706-1,686,839)
Outpatient costs only (n=315)	2,775 (398)	887.1 (17.8)	2.586 (0.020)	2,065 (441)	846.7 (17.6)	2.541 (0.020)	710 (738)	40.4 (17.9)*	0.045 (0.020)*	**$18** (-18-248)	**$15,831** (-16,377-222,895)

*p<.05, **p<.01, ***p<.001

[a]Delta-method; [b]Bootstrapped standard error; [c]bias corrected; [d]CBP is more expensive and no more effective than TAU in this subgroup; [e]QALY weight in base-case analysis=0.6. ICER = incremental cost-effectiveness ratio; CI = Confidence Interval; CDRS-R = Children's Depression Rating Scale-Revised; DFD = depression-free days; QALY = quality-adjusted life-years; NA = Not Applicable