

## **SUPPLEMENTARY MATERIALS**

### **Projecting the economic outcomes of switching patients with schizophrenia from oral atypical antipsychotics to once-monthly, once-every-3-months, and once-every-6-months paliperidone palmitate**

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**Supplementary Table 1. Population inputs**

Population characteristics	Value		Source/Assumptions
	Overall population		
Total population	1,000,000		Total population, user-defined input
Prevalence of schizophrenia among Medicaid patients	2.7%		Pilon <i>et al.</i> , 2021 <sup>23</sup>
Population with schizophrenia	27,000		Calculated based on the prevalence with schizophrenia
Proportion of schizophrenia patients currently treated with OAs	55.0%		Pilon <i>et al.</i> , 2017 <sup>25</sup>
Population with schizophrenia, on OAs	14,850		Calculated based on the proportion of population currently treated with OAs assuming that 100% were initially treated with OAs
Population with schizophrenia, on OAs and nonadherent	10,053		Calculated based on the proportion of patients initially nonadherent to OAs assuming that 67.7% of OAA patients are nonadherent over 6 months based on Marcus <i>et al.</i> (2015) which reported that 32.3% of patients initiating an OAA had a PDC value $\geq 80\%$ at 6 months after discharge for a schizophrenia-related hospitalization <sup>13</sup>
	Recently relapsed	Young adults	

Population with schizophrenia, on OAAs and nonadherent, with a recent relapse	7,454	-	Calculated based on proportion of OAAs nonadherent who had a recent relapse assuming that 74.1% of nonadherent patients have had a relapse in the previous 6 months, based on Lafeuille <i>et al.</i> (2013) [3-month hospitalization rate of 0.3511] and adjusted based on Ascher-Svanum <i>et al.</i> (2006) for the ratio of inpatient visits nonadherent/adherent of 1.8865. The 3-month rate was used to calculate the 6-month rate $(0.4915+(0.4915*(1-0.4915)))^{26,27}$
Population with schizophrenia, on OAAs and nonadherent who are young adults	-	4,002	Calculated based on proportion of OAAs nonadherent who are aged 18-35 years assuming that 39.8% (3,155/7,926) of patients treated with OAAs are aged 18-35 as per Manjelievskaia <i>et al.</i> (2018) <sup>12</sup>

**Abbreviations:** OAA = oral atypical antipsychotic, PDC = proportion of days covered.

Supplementary Table 2. Model inputs

Clinical event	Event	Recently relapsed	Young adults	Source	Notes
Adherence	Probability of adherence, PP1M patients	0.7141	0.6449	Recently relapsed: Marcus <i>et al.</i> , 2015 <sup>13</sup> Young adults: Manjelievskaia <i>et al.</i> , 2018 <sup>12</sup>	<b>Recently relapsed:</b> Proportion of Medicaid patients on PP1M with a PDC $\geq$ 0.80 during 6 months after index schizophrenia-related hospitalization was 51.0%. This has been adjusted to 3-month cycles ( $0.714^2=0.51$ ) <b>Young adults:</b> Proportion of Medicaid patients 18-35 years on PP1M with a PDC $\geq$ 0.80 during 12 months was 19.0%. This has been adjusted by a general/nonadherent ratio of 0.9100 (0.6541/0.7188) and to 3-month cycles ( $0.6449^4=0.173$ )
	Probability of adherence, OAA patients	0.0000		Assumption	The model is restricted to nonadherent OAA population only
	Probability of adherence if patients switch treatments, OAA or PP1M	0.5683	0.6281	Recently relapsed: Marcus <i>et al.</i> , 2015 <sup>13</sup> Young adults: Manjelievskaia <i>et al.</i> , 2018 <sup>12</sup>	<b>Recently relapsed:</b> Proportion of Medicaid patients with a PDC $\geq$ 0.80 during 6 months after index schizophrenia-related hospitalization was 32.3%. This has been adjusted to 3-month cycles ( $0.568^2=0.323$ ) <b>Young adults:</b> Proportion of Medicaid patients 18-35 years on OA with a PDC $\geq$ 0.80 during 12 months was 17.1%. This has been adjusted by a general/nonadherent ratio of 0.9100 (0.6541/0.7188) and to 3-month cycles ( $0.6281^4=0.156$ )

	Probability of adherence, transition from PP1M to PP3M	0.9358		Lin <i>et al.</i> , 2021 <sup>20</sup>	Proportion of Medicaid patients on PP3M with a PDC $\geq$ 0.80 during 12 months was 76.7%. This has been adjusted to 3-month cycles (0.9358 <sup>4</sup> =0.767)
	Probability of adherence, transition to PP6M	0.9716		Lin <i>et al.</i> , 2021 <sup>20</sup>	Proportion of Medicaid patients on PP3M with a PDC $\geq$ 0.80 during 6 months was 94.4%. This has been adjusted to 3-month cycles (0.9716 <sup>2</sup> =0.944) and is assumed to approximate rates of PP6M adherence
Relapse	Probability of relapse, adherent, all patients	0.2605	0.1646	Recently relapsed: Lafeuille <i>et al.</i> 2013 <sup>26</sup> , and Ascher-Svanum, 2006 <sup>27</sup> Young adults: Young-Xu <i>et al.</i> , 2016 <sup>28</sup> , and Ascher-Svanum, 2006 <sup>27</sup>	Mental disorder-related rehospitalization rates by 3 months among Medicaid, Medicare, and commercially insured patients (recently relapsed) and veterans (young adults) adjusted to account for model rate of adherence and a nonadherent/adherent ratio of 1.8865
	Probability of relapse, nonadherent, all patients	0.4915	0.3104	Recently relapsed: Lafeuille <i>et al.</i> 2013 <sup>26</sup> , and Ascher-Svanum, 2006 <sup>27</sup> Young adults: Young-Xu <i>et al.</i> , 2016 <sup>28</sup> , and Ascher-Svanum, 2006 <sup>27</sup>	

Switching	Probability of switching to an OAA, adherent, all patients	0.1500		Assumptions	Irrespective of treatment type, assumed those that have a relapse and are adherent would be most likely to switch
	Probability of switching to an OAA, nonadherent, all patients	0.1000			Irrespective of treatment type, assumed those that have a relapse and are nonadherent would be more inclined to switch than those not experiencing relapse
	Probability of switching to an OAA, stable, all patients	0.0200			Irrespective of treatment type, assumed only a small proportion of patients would switch if they are stable

Probability of transitioning from PP1M to PP3M, stable, all patients	0.1398	Lin <i>et al.</i> , 2021 <sup>20</sup>	Proportion of Medicaid patients with $\geq 1$ PP3M claim after adequate treatment with PP1M was 15.6% (i.e., $\geq 4$ months of continuous PP1M coverage [no gaps of $>45$ days in PP1M treatment]). The proportion of patients who are eligible has been adjusted to reflect that 89.6% of patients transition as per label <sup>18</sup> . Patients must be stable (i.e., no relapses in the current 3-month cycle) on PP1M before switching to PP3M
Probability of transitioning from PP1M to PP6M, stable, all patients	0.1322	Lin <i>et al.</i> , 2021 <sup>20</sup>	Assumed a similar switch rate as that of switching from PP1M to PP3M whereby 15.6% of Medicaid patients had $\geq 1$ PP3M claim after adequate treatment with PP1M (i.e., $\geq 4$ months of continuous PP1M coverage [no gaps of $>45$ days in PP1M treatment]). The eligible proportion switching has been adjusted to reflect the proportion of patients on the two highest PP1M dose
Probability of transitioning from PP3M to PP6M, stable, all patients	0.1355	Lin <i>et al.</i> , 2021 <sup>20</sup>	
Probability of switching from PP6M to PP1M or PP3M, stable, all patients	0.0150	Lin <i>et al.</i> , 2021 <sup>20</sup>	Assumed a similar switch rate as that of switching from PP3M to PP1M. The proportion of Medicaid patients with $\geq 1$ PP1M claim within the year following initiation of PP3M was 22%, adjusted to reflect that 5.5% would switch at any 3-month cycle. Rates have been adjusted to incorporate a probability of switching as that to an OAA,
Probability of switching from PP6M to PP1M or PP3M, relapse, adherent patients	0.0115	Lin <i>et al.</i> , 2021 <sup>20</sup>	

			dependent on both prior cycle adherence and relapse status
Probability of switching from PP6M to PP1M or PP3M, relapse, nonadherent patients	0.0775	Lin <i>et al.</i> , 2021 <sup>20</sup>	

**Abbreviations:** PDC = proportion of days covered, PP1M = once-monthly paliperidone palmitate, PP3M = once-every-three-months paliperidone palmitate, PP6M = once-every-six-months paliperidone palmitate, OAA = oral atypical antipsychotic.



**Supplementary Table 3. Cost inputs**

<b>Input</b>	<b>Price</b>	<b>Source/Note</b>
<b>PP1M<sup>1,2,3</sup></b>		
Initiation regimen of 234 mg	\$2,940	
Additional administration 7 days later, 156 mg	\$1,960	
Month 1 PP1M Cost	\$4,900	
Monthly Maintenance dose	\$2,386	Maintenance doses based on PP1M dosing distributions observed in Lin <i>et al.</i> , 2021. <sup>20</sup>
<b>PP3M<sup>1,2,3</sup></b>	\$2,434	Doses based on PP3M dosing distributions observed in Lin <i>et al.</i> , 2021. <sup>20</sup>
<b>PP6M<sup>1,2,3</sup></b>	\$2,583	Doses based on PP3M dosing distributions observed in Lin <i>et al.</i> , 2021. <sup>20</sup>
<b>OAA monthly cost<sup>1,3</sup></b>	\$313	<p>The average monthly cost of OAAs was calculated as a weighted cost of an OAA case mix, including aripiprazole, asenapine maleate, iloperidone, lurasidone, olanzapine, paliperidone, quetiapine, risperidone and ziprasidone. Frequency of dose was obtained from FDA prescribing information or APA guidelines.<sup>5</sup></p> <p>Each agent was weighted to contribute to the OAA case mix based on medication utilization frequencies reported in Pilon <i>et al.</i>, 2017.<sup>35</sup></p>
<b>Relapse cost<sup>4</sup></b>	\$23,283	
Average cost for initial inpatient stay	\$10,711	Average cost for an inpatient stay, based upon weighted average of schizophrenia

		diagnoses codes (ICD-9 codes: 295.xx) as per HCUP. <sup>36</sup>
Average cost for a readmission within 30 days	\$2,070	Within 30 days, 18.6% of initial inpatient stays for schizophrenia are readmitted with any diagnosis of schizophrenia (average cost per readmission: \$8,600) as per HCUP. <sup>37</sup>
Average cost for outpatient and other medical ancillary costs	\$10,502	Outpatient/other medical ancillary costs and institutional visit costs represent 43.3% and 52.7% of mean relapse-related weekly costs (relative to baseline period), respectively. Used a ratio of 43.3%/52.7% to reflect costs for outpatient and other medical ancillary services, as per Lafeuille <i>et al.</i> , 2013. <sup>4</sup>

**Abbreviations:** APA = American Psychiatric Association, FDA = Food and Drug Administration, HCUP = Healthcare Cost and Utilization Project, ICD-9 = International Classification of Diseases, 9th Revision, PDC = proportion of days covered; PP1M = once-monthly paliperidone palmitate, PP3M = once-every-three-months paliperidone palmitate, PP6M = once-every-six-months paliperidone palmitate, OAA = oral atypical antipsychotic.

**Notes:**

1. Treatment costs are based on the wholesale acquisition cost (WAC) Pkg Price from Redbook, accessed Jan 10, 2022.
2. For PP1M and PP3M, a 70% treatment discount, considering both statutory and inflation discounts, was applied to the WAC package price based on the literature;<sup>30</sup> for PP6M, a statutory 23.1% minimum discount was applied,<sup>31</sup> and the inflation discount was conservatively assumed to be 10% less than of that of PP1M and PP3M, as PP6M is a newer product.
3. Treatment costs were adjusted to reflect adherence status such that across treatments, treatment costs were assumed 90% among adherent patients. Incorporating this assumption, as well as the mean PDC and proportion of patients treated with OAAs and

PP1M who were adherent from Pilon *et al.*, 2017,<sup>25</sup> the weighted average of PDC among nonadherent patients was estimated as 0.387. Specifically:

$$0.387 = (((0.57-(0.33*0.9))/(1-0.33))*(2182/23537))+((0.53-(0.281*0.9))/(1-0.281))*(21,355/23,537))$$

4. Relapse costs have been inflated to 2021 using the Medical Care Component of the Consumer Price Index.

**Supplementary Table 4. Costs and relapses associated with switching nonadherent recently relapsed adults with schizophrenia from an OAA to PP1M, with subsequent transitions to PP3M and PP6M**

	Transitions to PP1M only				Transitions to PP1M, PP3M, and PP6M					
	Existing population (N=7,454; all patients on OAA)		Switching 5% (N=373) of OAA patients to PP1M		Switching 10% (N=745) of OAA patients to PP1M		Switching 5% (N=373) of OAA patients to PP1M, PP3M, and PP6M		Switching 10% (N=745) of OAA patients to PP1M, PP3M, PP6M	
	Costs	Number of relapses	Costs	Number of relapses avoided	Costs	Number of relapses avoided	Costs	Number of relapses avoided	Costs	Number of relapses avoided
<b>Relapse costs</b>										
Year 1	\$333,404,919	14,320	\$328,162,579	225	\$322,920,240	450	\$327,901,407	236	\$322,397,895	472
Year 2	\$315,321,172	13,543	\$311,202,330	177	\$307,083,488	354	\$310,304,305	216	\$305,287,439	431
Year 3	\$301,161,406	12,935	\$297,925,137	139	\$294,688,868	278	\$296,986,974	179	\$292,812,542	359
<b>Total relapse costs</b>	<b>\$949,887,497</b>	<b>40,798</b>	<b>\$937,290,047</b>	<b>541</b>	<b>\$924,692,596</b>	<b>1,082</b>	<b>\$935,192,686</b>	<b>631</b>	<b>\$920,497,876</b>	<b>1,262</b>
<b>Treatment costs</b>										
Year 1	\$11,412,345		\$13,343,706		\$15,275,067		\$13,479,454		\$15,546,563	
Year 2	\$13,042,640		\$14,406,875		\$15,771,110		\$14,934,616		\$16,826,592	
Year 3	\$14,319,178		\$15,401,354		\$16,483,530		\$15,988,013		\$17,656,848	

<b>Total treatment costs</b>	\$38,774,163	\$43,151,935	\$47,529,707	\$44,402,083	\$50,030,004
<b>Total plan level costs</b>	<b>\$988,661,660</b>	<b>\$980,441,982</b>	<b>\$972,222,304</b>	<b>\$979,594,770</b>	<b>\$970,527,880</b>

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**Supplementary Table 5. Costs and relapses associated with switching nonadherent, recently relapsed patients with schizophrenia from an OAA to PP1M, with subsequent transitions to PP3M and PP6M, based on number of relapses**

	Existing population (N=7,454; all patients on OAA)			Transitions to PP1M only			Transitions to PP1M, PP3M, and PP6M		
				Switching 50% (N=3,727) of OAA patients to PP1M			Switching 50% (N=3,727) of OAA patients to PP1M, PP3M, and PP6M		
	Costs	Cost per patient	Number of relapses	Costs	Cost per patient switched	Number of relapses avoided	Costs	Cost per patient switched	Number of relapses avoided
<b>Relapse costs</b>									
Year 1	\$333,404,919	\$44,729	14,320	\$280,981,525	\$30,663	2,252	\$278,369,799	\$29,962	2,364
Year 2	\$315,321,172	\$42,303	13,543	\$274,132,754	\$31,251	1,769	\$265,152,507	\$28,842	2,155
Year 3	\$301,161,406	\$40,403	12,935	\$268,798,716	\$31,720	1,390	\$259,417,087	\$29,203	1,793
<b>Total relapse costs</b>	\$949,887,497		40,798	\$823,912,995		5,411	\$802,939,393		6,312
<b>Treatment costs</b>									
Year 1	\$11,412,345	\$1,531		\$30,725,952	\$6,713		\$32,083,434	\$7,077	
Year 2	\$13,042,640	\$1,750		\$26,684,993	\$5,410		\$31,962,401	\$6,826	
Year 3	\$14,319,178	\$1,921		\$25,140,939	\$4,825		\$31,007,530	\$6,399	
<b>Total treatment costs</b>	\$38,774,163			\$82,551,884			\$95,053,365		
<b>Total plan level costs</b>	<b>\$988,661,660</b>			<b>\$906,464,879</b>			<b>\$897,992,758</b>		

	Existing population (N=7,454; all patients on OAA)			Switching patients to PP1M after the first subsequent relapse			Switching patients to PP1M after the first subsequent relapse		
<b>Relapse costs</b>									
Year 1	\$333,404,919	\$44,729	14,320	\$307,185,611	\$41,780	1,126	\$306,698,242	\$41,629	1,147
Year 2	\$315,321,172	\$42,303	13,543	\$274,795,889	\$31,644	1,741	\$268,288,052	\$29,880	2,020
Year 3	\$301,161,406	\$40,403	12,935	\$268,028,059	\$31,534	1,422	\$258,761,683	\$29,045	1,820
<b>Total relapse costs</b>	\$949,887,497		40,798	\$850,009,559		4,289	\$833,747,977		4,987
<b>Treatment costs</b>									
Year 1	\$11,412,345	\$1,531		\$22,400,860	\$4,936		\$22,639,972	\$5,010	
Year 2	\$13,042,640	\$1,750		\$27,641,146	\$5,708		\$31,302,280	\$6,700	
Year 3	\$14,319,178	\$1,921		\$26,199,316	\$5,112		\$31,842,039	\$6,627	
<b>Total treatment costs</b>	\$38,774,163			\$76,241,322			\$85,784,291		
<b>Total plan level costs</b>	<b>\$988,661,660</b>			<b>\$926,250,881</b>			<b>\$919,532,268</b>		

**Supplementary Table 6. Costs and relapses associated with switching nonadherent, young adult patients with schizophrenia from an OAA to PP1M, with subsequent transitions to PP3M and PP6M**

	Transitions to PP1M only				Transitions to PP1M, PP3M, and PP6M					
	Existing population (N=7,454; all patients on OAA)		Switching 5% (N=200) of OAA patients to PP1M		Switching 10% (N=400) of OAA patients to PP1M		Switching 5% (N=200) of OAA patients to PP1M, PP3M, and PP6M		Switching 10% (N=400) of OAA patients to PP1M, PP3M, PP6M	
	Costs	Number of relapses	Costs	Number of relapses avoided	Costs	Number of relapses avoided	Costs	Number of relapses avoided	Costs	Number of relapses avoided
<b>Relapse costs</b>										
Year 1	\$113,458,675	4,873	\$111,820,698	70	\$110,182,722	140	\$111,691,143	76	\$109,923,612	152
Year 2	\$108,110,879	4,643	\$106,747,136	59	\$105,383,394	117	\$106,296,302	78	\$104,481,725	156
Year 3	\$103,659,507	4,452	\$102,524,083	49	\$101,388,659	98	\$102,041,442	69	\$100,423,377	139
<b>Total relapse costs</b>	<b>\$325,229,060</b>	<b>13,968</b>	<b>\$321,091,917</b>	<b>178</b>	<b>\$316,954,774</b>	<b>355</b>	<b>\$320,028,887</b>	<b>223</b>	<b>\$314,828,714</b>	<b>447</b>
<b>Treatment costs</b>										
Year 1	\$6,068,007		\$7,060,353		\$8,052,700		\$7,154,293		\$8,240,579	
Year 2	\$6,831,855		\$7,572,936		\$8,314,017		\$7,941,634		\$9,051,412	
Year 3	\$7,467,663		\$8,088,792		\$8,709,921		\$8,513,535		\$9,559,407	



<b>Total treatment costs</b>	\$20,367,525	\$22,722,081	\$25,076,637	\$23,609,462	\$26,851,399
<b>Total plan level costs</b>	<b>\$345,596,585</b>	<b>\$343,813,998</b>	<b>\$342,031,412</b>	<b>\$343,638,349</b>	<b>\$341,680,113</b>

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**Abbreviations:** OAA = oral atypical antipsychotic, PP1M = once-monthly paliperidone palmitate, PP3M = once-every-three-months paliperidone palmitate, PP6M = once-every-six-months paliperidone palmitate.

**Supplementary Table 7. Costs and relapses associated with switching nonadherent, young adult patients with schizophrenia from an OAA to PP1M, with subsequent transitions to PP3M and PP6M, based on number of relapses**

	Existing population (N=4,002; all patients on OAA)			Transitions to PP1M only Switching 50% (N=2,001) of OAA patients to PP1M			Transitions to PP1M, PP3M, and PP6M Switching 50% (N=2,001) of OAA patients to PP1M, PP3M, and PP6M		
	Costs	Cost per patient	Number of relapses	Costs	Cost per patient switched	Number of relapses avoided	Costs	Cost per patient switched	Number of relapses avoided
<b>Relapse costs</b>									
Year 1	\$113,458,675	\$28,352	4,873	\$97,078,909	\$20,165	704	\$95,783,359	\$19,518	759
Year 2	\$108,110,879	\$27,015	4,643	\$94,473,454	\$20,200	586	\$89,965,110	\$17,947	779
Year 3	\$103,659,507	\$25,903	4,452	\$92,305,268	\$20,228	488	\$87,478,859	\$17,816	695
<b>Total relapse costs</b>	\$325,229,060		13,968	\$283,857,631		1,778	\$273,227,328		2,233
<b>Treatment costs</b>									
Year 1	\$6,068,007	\$1,516		\$15,991,473	\$6,476		\$16,930,869	\$6,945	
Year 2	\$6,831,855	\$1,707		\$14,242,664	\$5,411		\$17,929,642	\$7,254	
Year 3	\$7,467,663	\$1,866		\$13,678,952	\$4,970		\$17,926,385	\$7,093	
<b>Total treatment costs</b>	\$20,367,525			\$43,913,088			\$52,786,896		
<b>Total plan level costs</b>	<b>\$345,596,585</b>			<b>\$327,770,719</b>			<b>\$326,014,224</b>		
	Existing population (N=4,002; all patients on OAA)			Switching patients to PP1M after the first relapse			Switching patients to PP1M after the first relapse		

**Relapse costs**

Year 1	\$113,458,675	\$28,352	4,873	\$108,083,559	\$34,575	231	\$107,930,781	\$34,462	237
Year 2	\$108,110,879	\$27,015	4,643	\$96,970,133	\$22,545	478	\$94,461,942	\$21,194	586
Year 3	\$103,659,507	\$25,903	4,452	\$92,800,827	\$20,685	465	\$88,517,719	\$18,511	649
<b>Total relapse costs</b>	<b>\$325,229,060</b>		<b>13,968</b>	<b>\$297,854,520</b>		<b>1,174</b>	<b>\$290,910,442</b>		<b>1,472</b>

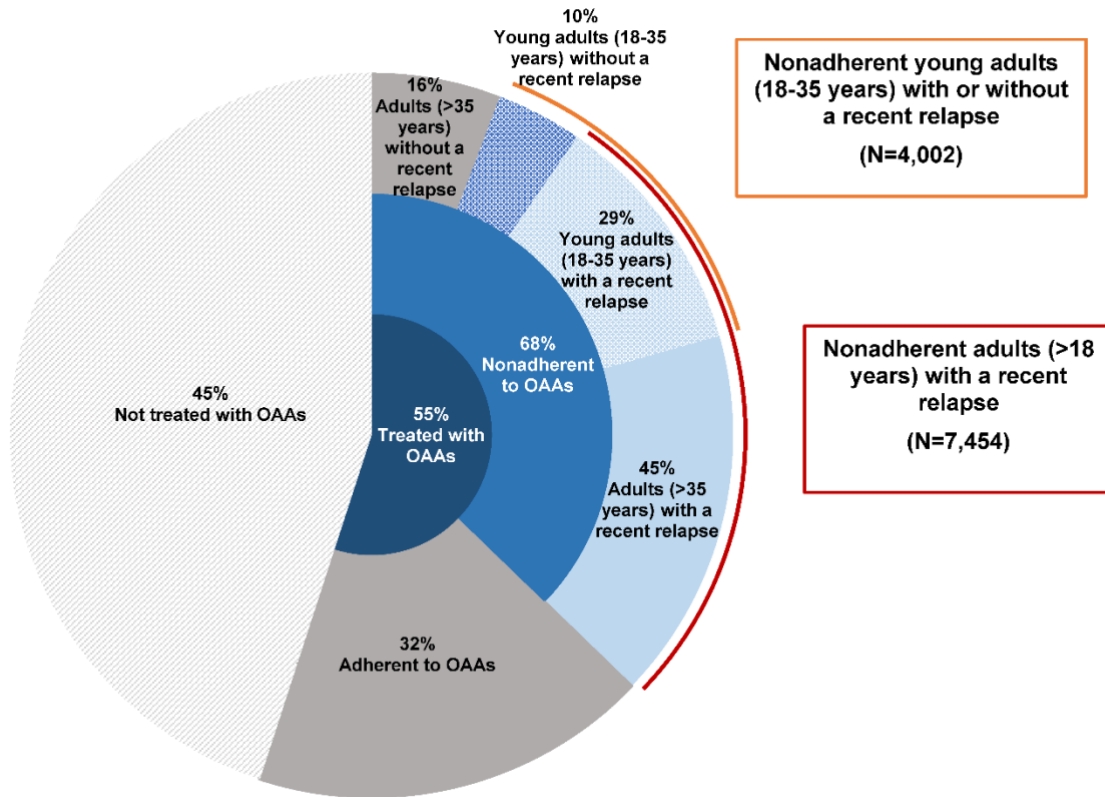
**Treatment costs**

Year 1	\$6,068,007	\$1,516		\$10,139,858	\$4,547		\$10,245,208	\$4,626	
Year 2	\$6,831,855	\$1,707		\$13,951,214	\$5,554		\$15,898,357	\$6,603	
Year 3	\$7,467,663	\$1,866		\$14,159,407	\$5,268		\$17,763,424	\$7,098	
<b>Total treatment costs</b>	<b>\$20,367,525</b>			<b>\$38,250,479</b>			<b>\$43,906,989</b>		
<b>Total plan level costs</b>	<b>\$345,596,585</b>			<b>\$336,104,998</b>			<b>\$334,817,431</b>		

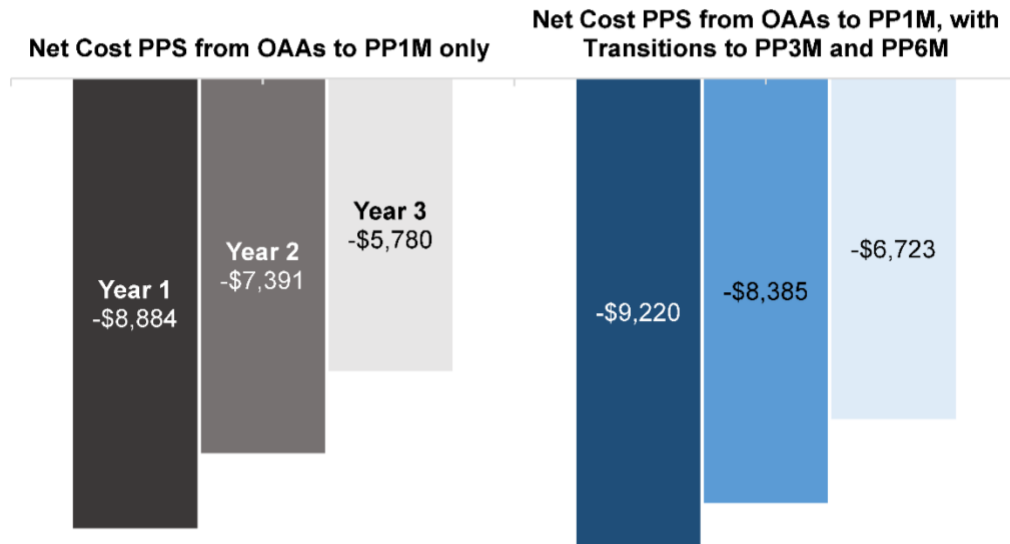
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**Abbreviations:** OAA = oral atypical antipsychotic; PP1M = once-monthly paliperidone palmitate; PP3M = once-every-three-months paliperidone palmitate; PP6M = once-every-six-months paliperidone palmitate.

**Supplementary Figure 1. Distribution of Medicaid patients with schizophrenia (N=27,000) based on treatment with and adherence to OAs, presence of a recent relapse, and age category**

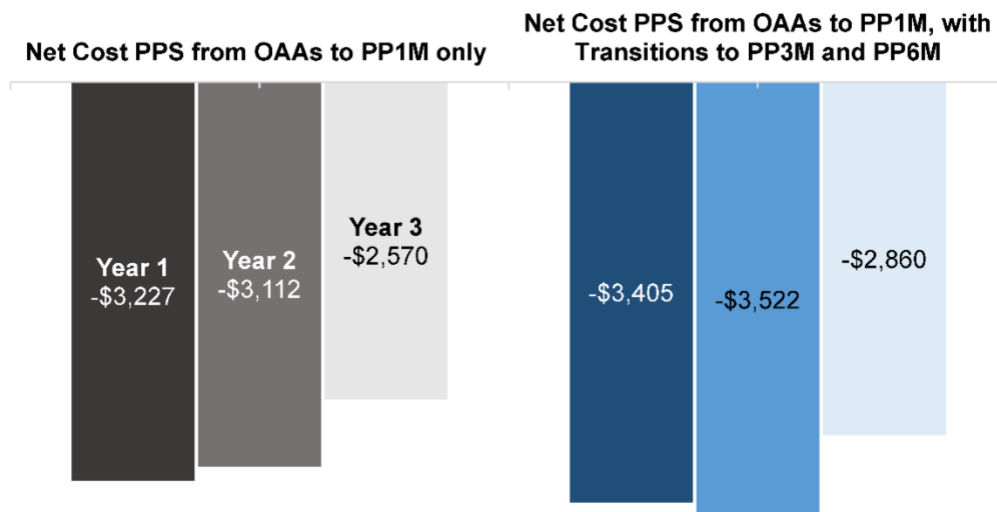


**Supplementary Figure 2. Net cost savings per patient switched from OAA to PP1M with subsequent transitions to PP3M, and PP6M, among nonadherent, recently relapsed adults**



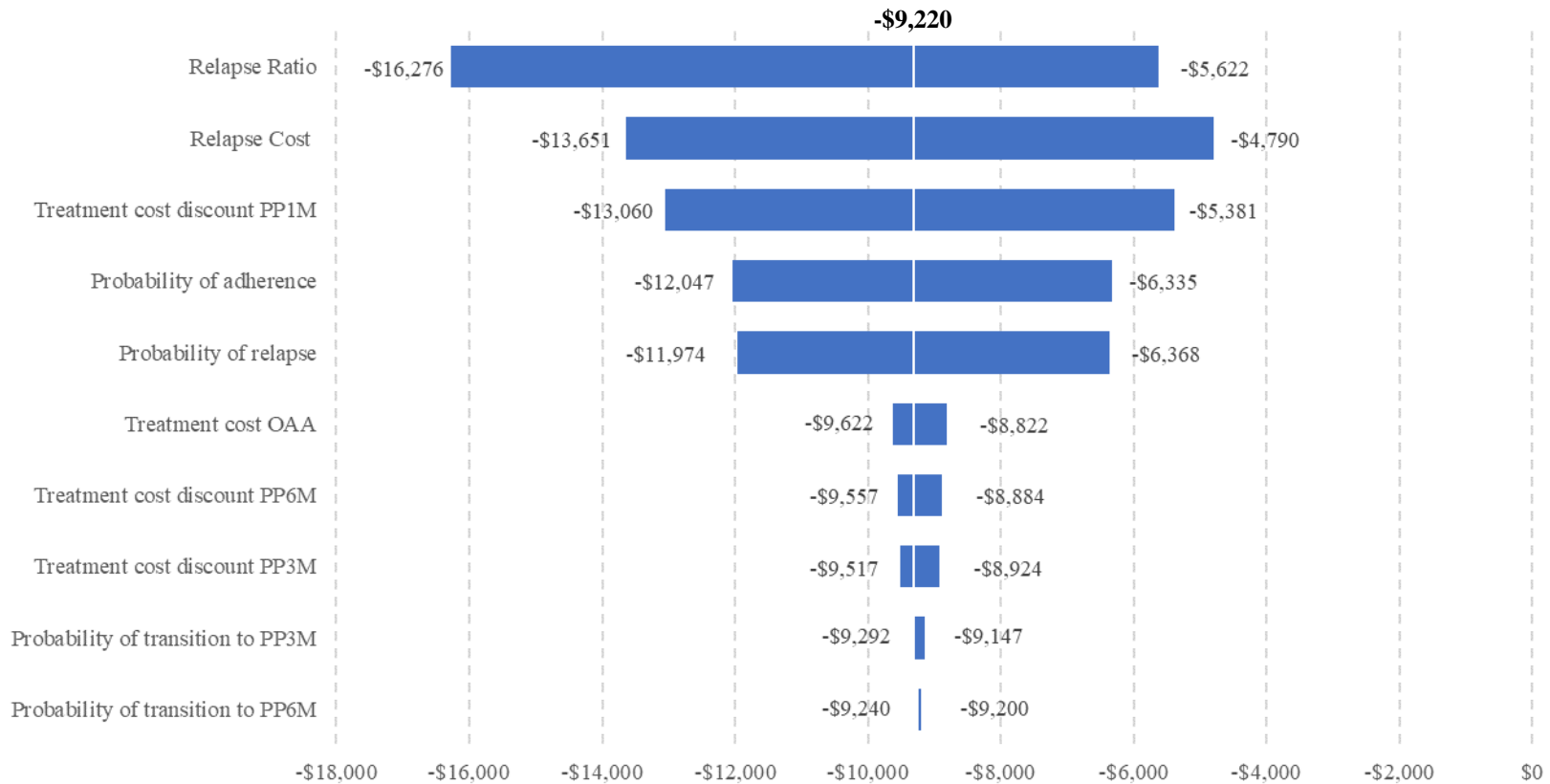
**Abbreviations:** OAA = oral atypical antipsychotic, PP1M = once-monthly paliperidone palmitate, PP3M = once-every-three-months paliperidone palmitate, PP6M once-every-six-months paliperidone palmitate; PPS = per patient switched.

**Supplementary Figure 3. Net cost savings per patient switched from OAA to PP1M with subsequent transitions to PP3M, and PP6M, among nonadherent young adults**



**Abbreviations:** OAA = oral atypical antipsychotic, PP1M = once-monthly paliperidone palmitate, PP3M = once-every-three-months paliperidone palmitate, PP6M once-every-six-months paliperidone palmitate; PPS = per patient switched.

Supplementary Figure 4. Sensitivity analysis: Net cost savings per patients switched from OAA to PP1M among nonadherent, recently relapsed adults in year 1<sup>1</sup>



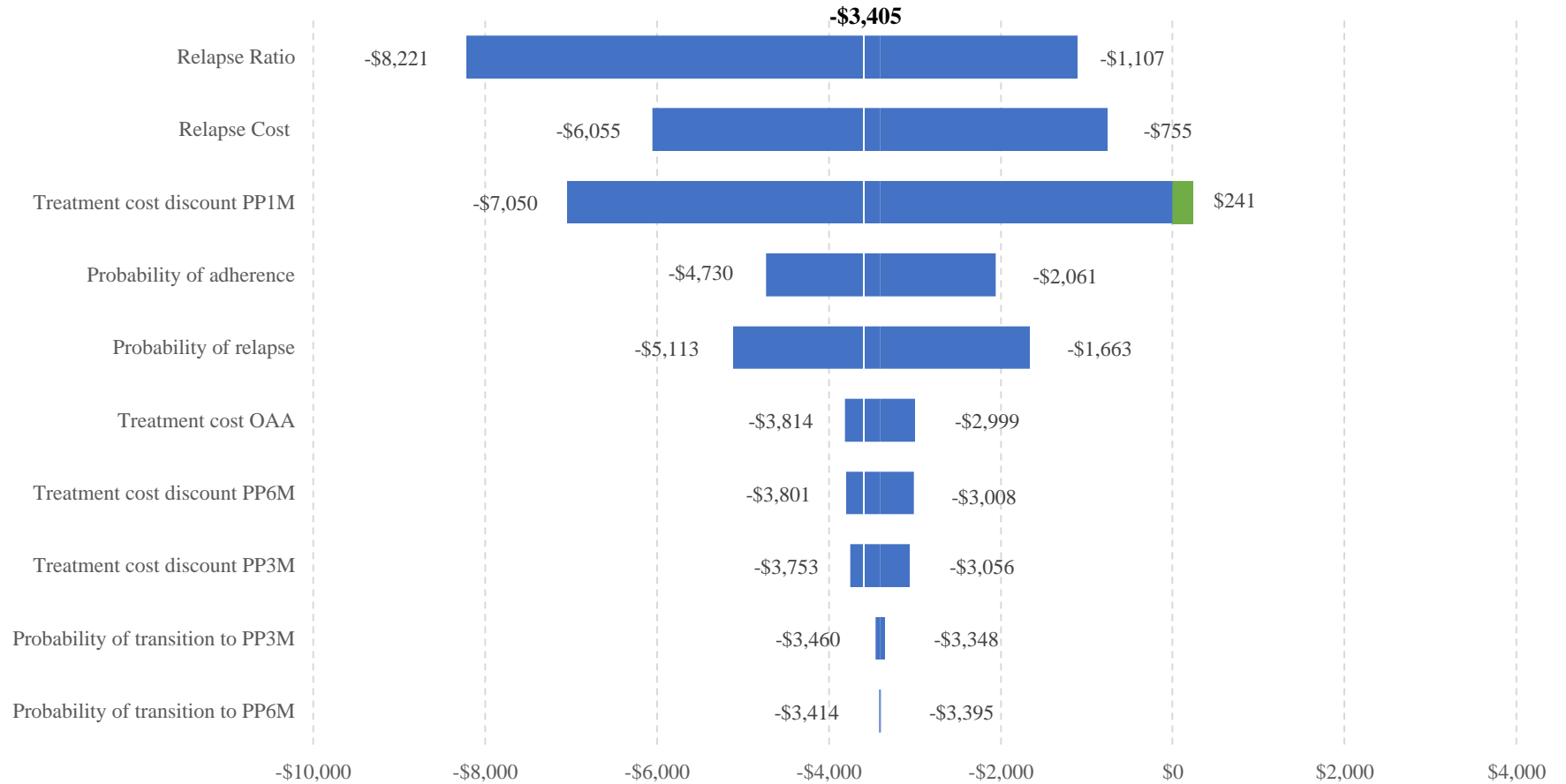
**Abbreviations:** OAA = oral atypical antipsychotic, PP1M = once-monthly paliperidone palmitate, PP3M = once-every-three-months paliperidone palmitate, PP6M once-every-six-months paliperidone palmitate.

**Note:**

1. Upper and lower bounds for each input used in the OSA are as follows: Probability of adherence, PP1M (0.4999, 0.9284); Probability of adherence, OAA (0.3978, 0.7388); Probability of adherence, PP3M (0.6551, 1.0000); Probability of adherence, PP6M (0.6801, 1.0000); Probability of rehospitalization for the relapse ratio, adherent (0.2165, 0.2828); Probability of rehospitalization for the relapse ratio, non-adherent (0.4570, 0.5596); Probability of relapse, adherent (0.2084, 0.3126); Probability of relapse, non-adherent (0.3932, 0.5897); Probability of transition to PP3M (0.0979, 0.1817); Probability of transition to PP6M (0.0925, 0.1719); Treatment cost discount, PP1M (50%, 90%); Treatment cost discount, PP3M (50%, 90%); Treatment cost discount, PP6M (40%, 80%); Cost of relapse (\$16,298, \$30,268); Cost of OAA monthly (\$219, \$407).



**Supplementary Figure 5. Sensitivity analysis: Net cost savings per patients switched from OAA to PP1M among nonadherent, young adults in year 1<sup>1</sup>**

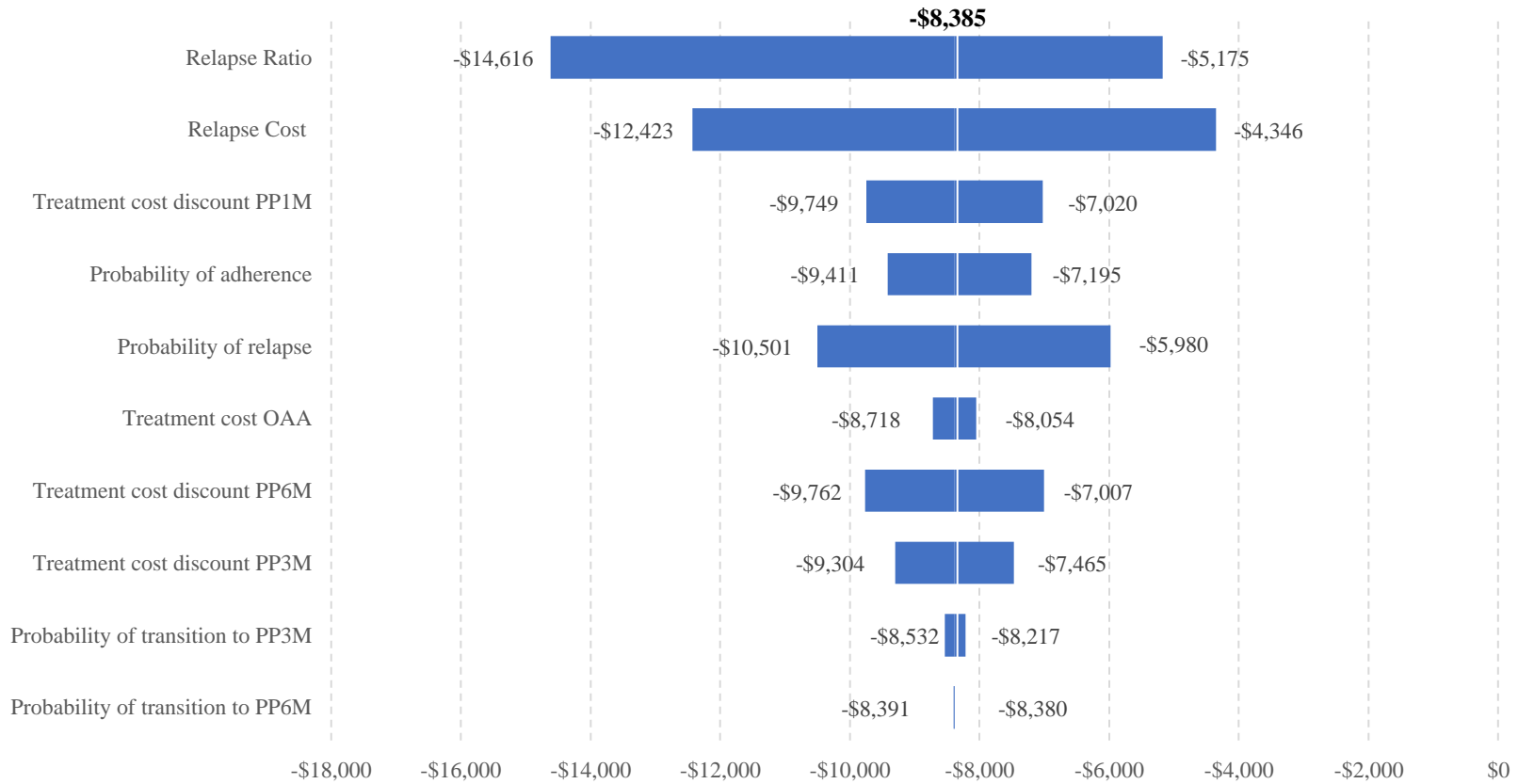


**Abbreviations:** OAA = oral atypical antipsychotic, PP1M = once-monthly paliperidone palmitate, PP3M = once-every-three-months paliperidone palmitate, PP6M once-every-six-months paliperidone palmitate.

**Note:**

1. Upper and lower bounds for each input used in the OSA are as follows: Probability of adherence, PP1M (0.4514, 0.8384); Probability of adherence, OAA (0.4397, 0.8165); Probability of adherence, PP3M (0.6551, 1.0000); Probability of adherence, PP6M (0.6801, 1.0000); Probability of rehospitalization for the relapse ratio, adherent (0.1430, 0.1748); Probability of rehospitalization for the relapse ratio, non-adherent (0.2824, 0.3697); Probability of relapse, adherent (0.1316, 0.1975); Probability of relapse, non-adherent (0.2483, 0.3725); Probability of transition to PP3M (0.0979, 0.1817); Probability of transition to PP6M (0.0925, 0.1719); Treatment cost discount, PP1M (50%, 90%); Treatment cost discount, PP3M (50%, 90%); Treatment cost discount, PP6M (40%, 80%); Cost of relapse (\$16,298, \$30,268); Cost of OAA monthly (\$219, \$407).

**Supplementary Figure 6. Sensitivity analysis: Net cost savings per patients switched from OAA to PP1M among nonadherent, recently relapsed adults in year 2<sup>1</sup>**

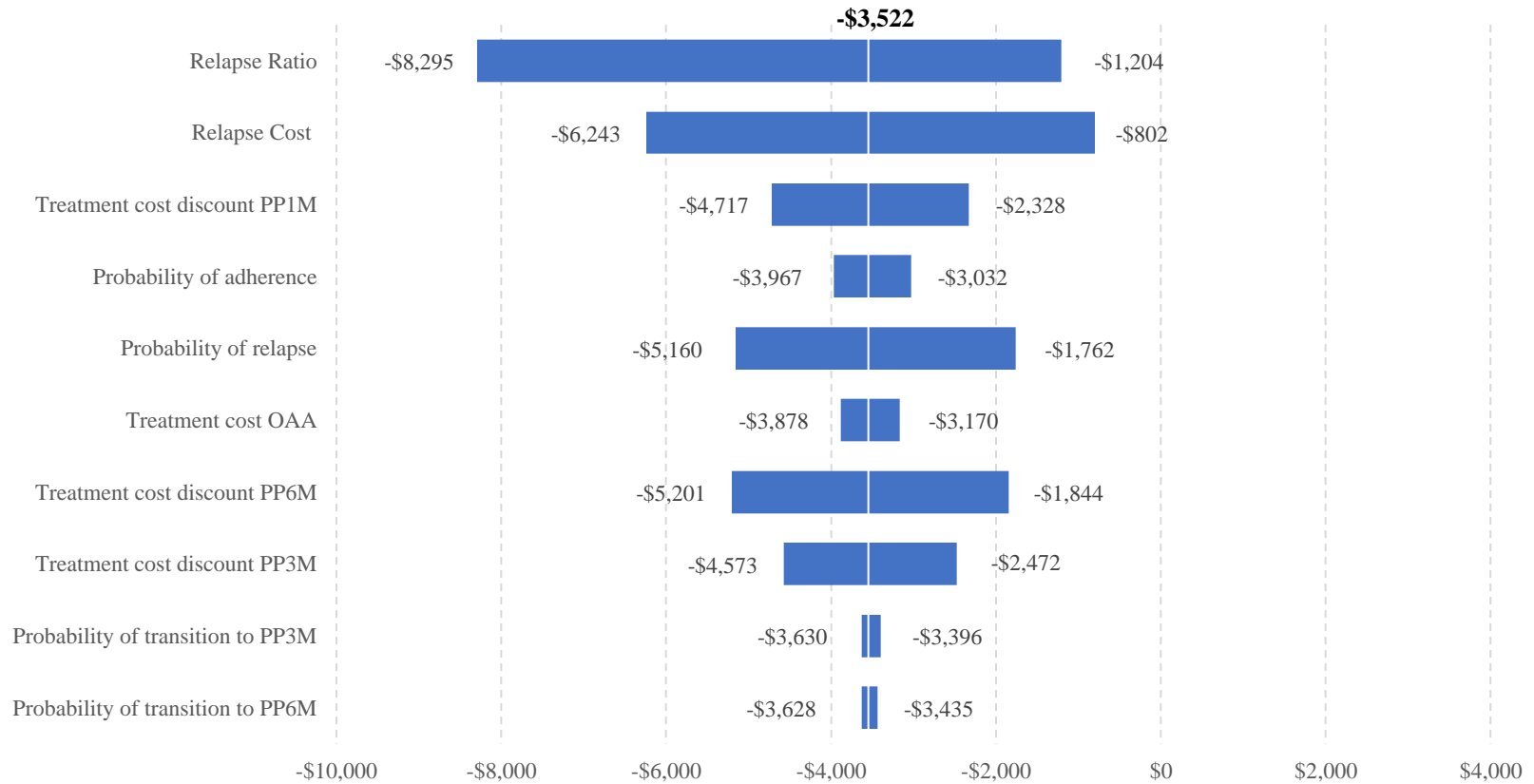


**Abbreviations:** OAA = oral atypical antipsychotic, PP1M = once-monthly paliperidone palmitate, PP3M = once-every-three-months paliperidone palmitate, PP6M once-every-six-months paliperidone palmitate.

**Note:**

1. Upper and lower bounds for each input used in the OSA are as follows: Probability of adherence, PP1M (0.4999, 0.9284); Probability of adherence, OAA (0.3978, 0.7388); Probability of adherence, PP3M (0.6551, 1.0000); Probability of adherence, PP6M (0.6801, 1.0000); Probability of rehospitalization for the relapse ratio, adherent (0.2165, 0.2828); Probability of rehospitalization for the relapse ratio, non-adherent (0.4570, 0.5596); Probability of relapse, adherent (0.2084, 0.3126); Probability of relapse, non-adherent (0.3932, 0.5897); Probability of transition to PP3M (0.0979, 0.1817); Probability of transition to PP6M (0.0925, 0.1719); Treatment cost discount, PP1M (50%, 90%); Treatment cost discount, PP3M (50%, 90%); Treatment cost discount, PP6M (40%, 80%); Cost of relapse (\$16,298, \$30,268); Cost of OAA monthly (\$219, \$407).

**Supplementary Figure 7. Sensitivity analysis: Net cost savings per patients switched from OAA to PP1M among nonadherent, young adults in year 2<sup>1</sup>**

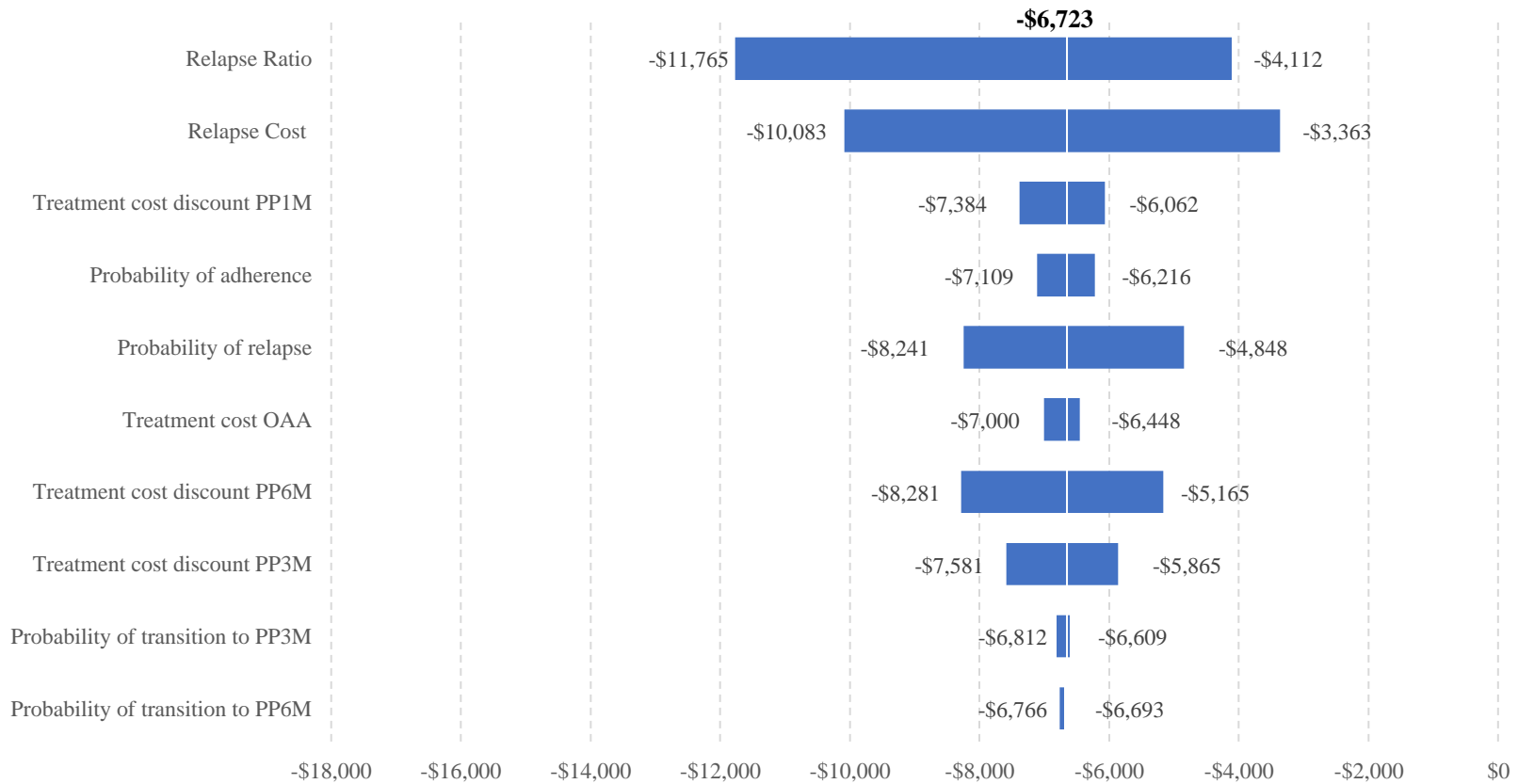


**Abbreviations:** OAA = oral atypical antipsychotic, PP1M = once-monthly paliperidone palmitate, PP3M = once-every-three-months paliperidone palmitate, PP6M once-every-six-months paliperidone palmitate.

**Note:**

1. Upper and lower bounds for each input used in the OSA are as follows: Probability of adherence, PP1M (0.4514, 0.8384); Probability of adherence, OAA (0.4397, 0.8165); Probability of adherence, PP3M (0.6551, 1.0000); Probability of adherence, PP6M (0.6801, 1.0000); Probability of rehospitalization for the relapse ratio, adherent (0.1430, 0.1748); Probability of rehospitalization for the relapse ratio, non-adherent (0.2824, 0.3697); Probability of relapse, adherent (0.1316, 0.1975); Probability of relapse, non-adherent (0.2483, 0.3725); Probability of transition to PP3M (0.0979, 0.1817); Probability of transition to PP6M (0.0925, 0.1719); Treatment cost discount, PP1M (50%, 90%); Treatment cost discount, PP3M (50%, 90%); Treatment cost discount, PP6M (40%, 80%); Cost of relapse (\$16,298, \$30,268); Cost of OAA monthly (\$219, \$407).

**Supplementary Figure 8. Sensitivity analysis: Net cost savings per patients switched from OAA to PP1M among nonadherent, recently relapsed adults in year 3<sup>1</sup>**



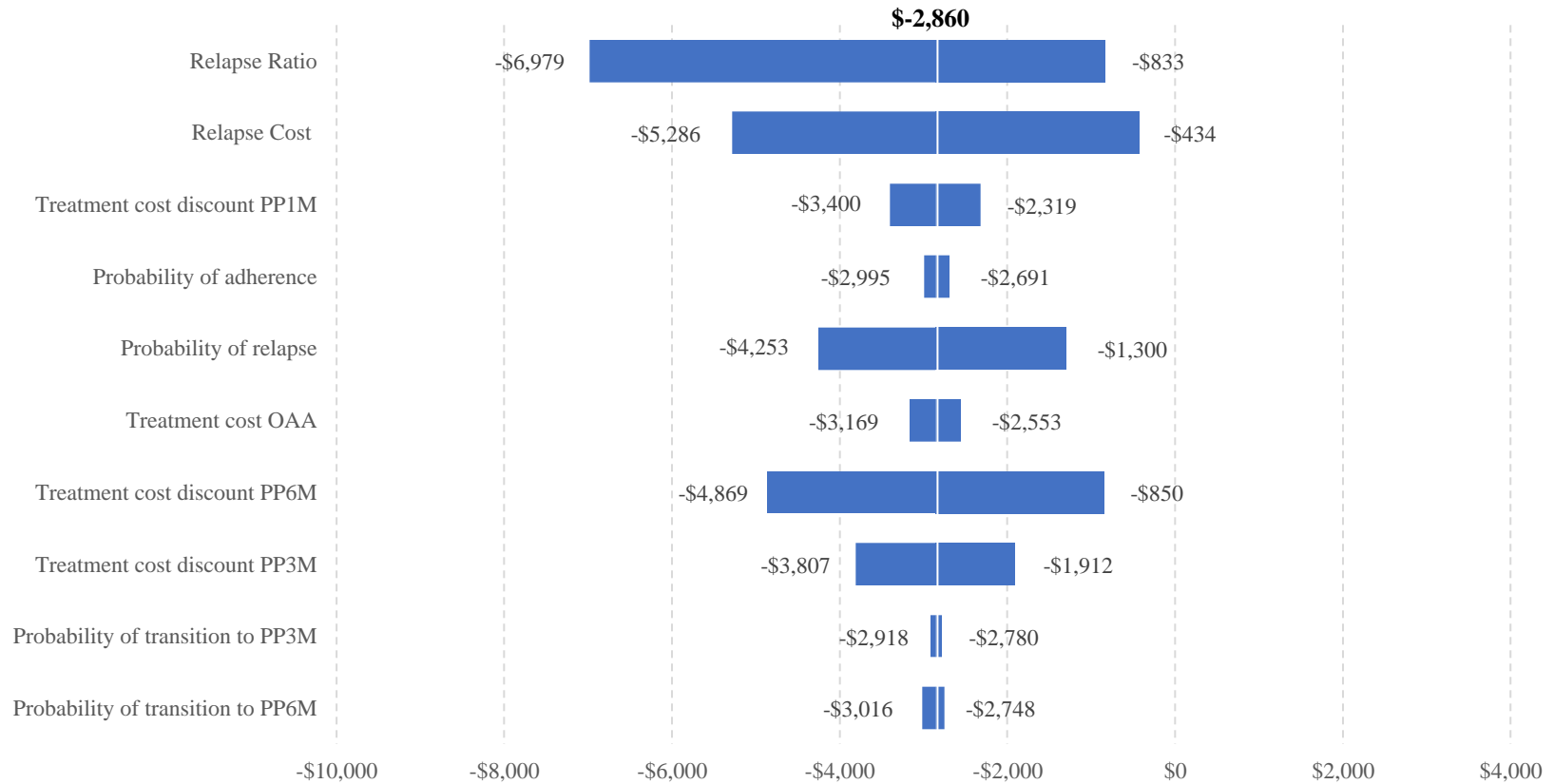
**Abbreviations:** OAA = oral atypical antipsychotic, PP1M = once-monthly paliperidone palmitate, PP3M = once-every-three-months paliperidone palmitate, PP6M once-every-six-months paliperidone palmitate.

**Note:**

1. Upper and lower bounds for each input used in the OSA are as follows: Probability of adherence, PP1M (0.4999, 0.9284); Probability of adherence, OAA (0.3978, 0.7388); Probability of adherence, PP3M (0.6551, 1.0000); Probability of adherence, PP6M (0.6801, 1.0000); Probability of rehospitalization for the relapse ratio, adherent (0.2165, 0.2828); Probability of rehospitalization for the relapse ratio, non-adherent (0.4570, 0.5596); Probability of relapse, adherent (0.2084, 0.3126); Probability of relapse, non-adherent (0.3932, 0.5897); Probability of transition to PP3M (0.0979, 0.1817); Probability of transition to PP6M (0.0925, 0.1719); Treatment cost discount, PP1M (50%, 90%); Treatment cost discount, PP3M (50%, 90%); Treatment cost discount, PP6M (40%, 80%); Cost of relapse (\$16,298, \$30,268); Cost of OAA monthly (\$219, \$407).



**Supplementary Figure 9. Sensitivity analysis: Net cost savings per patients switched from OAA to PP1M among nonadherent, young adults in year 3<sup>1</sup>**



**Abbreviations:** OAA = oral atypical antipsychotic, PP1M = once-monthly paliperidone palmitate, PP3M = once-every-three-months paliperidone palmitate, PP6M once-every-six-months paliperidone palmitate.

**Note:**

1. Upper and lower bounds for each input used in the OSA are as follows: Probability of adherence, PP1M (0.4514, 0.8384); Probability of adherence, OAA (0.4397, 0.8165); Probability of adherence, PP3M (0.6551, 1.0000); Probability of adherence, PP6M (0.6801, 1.0000); Probability of rehospitalization for the relapse ratio, adherent (0.1430, 0.1748); Probability of rehospitalization for the relapse ratio, non-adherent (0.2824, 0.3697); Probability of relapse, adherent (0.1316, 0.1975); Probability of relapse, non-adherent (0.2483, 0.3725); Probability of transition to PP3M (0.0979, 0.1817); Probability of transition to PP6M (0.0925, 0.1719); Treatment cost discount, PP1M (50%, 90%); Treatment cost discount, PP3M (50%, 90%); Treatment cost discount, PP6M (40%, 80%); Cost of relapse (\$16,298, \$30,268); Cost of OAA monthly (\$219, \$407).