

**CHANGING THE TRAJECTORY OF ALZHEIMER'S DISEASE:  
A NATIONAL IMPERATIVE**

**APPENDIX B**

The Alzheimer's Association report, *Changing the Trajectory of Alzheimer's Disease: A National Imperative*, presents information about the current trajectory and impact of Alzheimer's disease based on data from a model developed for the Alzheimer's Association by The Lewin Group. Appendix B provides detailed data from the model.

**Detailed Tables from The Lewin Group Model**

The following tables show data for three trajectories for Alzheimer's disease:

- B-1 The current trajectory, which assumes that no new treatments for Alzheimer's disease become available by 2050.
- B-2 A delayed-onset trajectory, which assumes that a treatment or treatments become available in 2015 and that the treatment or treatments delay the onset of Alzheimer's disease by five years.
- B-3 A slowed-progression trajectory, which assumes that a treatment or treatments become available in 2015 and that the treatment or treatments slow the progression of Alzheimer's disease so that 10 percent of people with the disease progress annually from the mild to moderate stage of the disease and 5 percent progress annually from the moderate stage to the severe stage of the disease.

**Table B-1. Current Trajectory (CT)\***

<b>People with Alzheimer’s disease (AD)</b>	<b>2010</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>	<b>2040</b>	<b>2045</b>	<b>2050</b>
CT: Number of people with AD (millions)	5.1	5.3	5.6	6.5	7.8	9.5	11.2	12.7	13.5
CT: Number in mild stage (millions)	1.4	1.5	1.6	1.8	2.2	2.6	3.0	3.2	3.1
CT: Percent in mild stage	28%	28%	28%	28%	28%	28%	27%	25%	23%
CT: Number in moderate stage (millions)	1.5	1.6	1.7	2.0	2.4	2.9	3.4	3.8	3.9
CT: Percent in moderate stage	31%	31%	30%	31%	31%	30%	30%	30%	29%
CT: Number in severe stage (millions)	2.0	2.2	2.4	2.7	3.2	4.0	4.9	5.8	6.5
CT: Percent in severe stage	41%	41%	42%	41%	41%	42%	43%	45%	48%
CT: People with AD as a percent of all people age 65+	13%	11%	10%	10%	11%	12%	14%	15%	16%
<b>Costs of Care in billions</b>	<b>2010</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>	<b>2040</b>	<b>2045</b>	<b>2050</b>
CT: Medicare costs	\$88	\$107	\$128	\$166	\$225	\$306	\$406	\$519	\$627
CT: Medicare costs for nursing home care	\$10	\$13	\$14	\$17	\$22	\$29	\$37	\$45	\$53
CT: Medicaid costs	\$34	\$39	\$46	\$56	\$72	\$95	\$123	\$151	\$178
CT: Medicaid costs for nursing home care	\$30	\$35	\$40	\$48	\$62	\$82	\$104	\$129	\$150
CT: Federal Medicaid costs for nursing home care	\$17	\$19	\$22	\$28	\$34	\$46	\$59	\$72	\$85
CT: State Medicaid costs for nursing home care	\$14	\$15	\$18	\$22	\$28	\$36	\$46	\$56	\$67
CT: Out-of-pocket costs	\$30	\$33	\$40	\$48	\$63	\$85	\$108	\$134	\$157
CT: Out-of-pocket costs for nursing home care	\$16	\$17	\$21	\$24	\$31	\$41	\$52	\$64	\$76
CT: Costs to other payers	\$22	\$23	\$28	\$36	\$47	\$62	\$80	\$101	\$117
CT: Costs to other payers for nursing home care	\$2	\$2	\$2	\$2	\$3	\$5	\$6	\$8	\$9
CT: Total costs to all payers	\$172	\$202	\$241	\$307	\$408	\$547	\$717	\$906	\$1,078

\* Columns in this table may not sum exactly because of rounding.

**Table B-2. Delayed Onset Trajectory: Onset of Alzheimer’s Disease is delayed by 5 years, and there is no change in progression (T2)\***

<b>People with Alzheimer’s disease (AD)</b>	<b>2010</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>	<b>2040</b>	<b>2045</b>	<b>2050</b>
T2: Number of people with AD (millions)	5.1	5.3	4.0	3.8	4.2	5.1	6.1	7.1	7.7
T2: Number in mild stage (millions)	1.4	1.5	0.8	1.0	1.2	1.5	1.7	1.9	1.9
T2: Percent in mild stage	29%	28%	20%	26%	29%	29%	28%	27%	25%
T2: Number in moderate stage (millions)	1.5	1.6	1.1	1.0	1.3	1.6	1.9	2.2	2.3
T2: Percent in moderate stage	31%	31%	27%	27%	29%	31%	31%	30%	30%
T2: Number in severe stage (millions)	2.0	2.2	2.1	1.8	1.8	2.1	2.5	3.0	3.5
T2: Percent in severe stage	40%	41%	53%	47%	42%	40%	41%	43%	45%
T2: People with AD as a percent of all people age 65+	12%	11%	7%	6%	6%	7%	8%	9%	9%
<b>Costs of Care in billions</b>	<b>2010</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>	<b>2040</b>	<b>2045</b>	<b>2050</b>
CT: Medicare costs	\$88	\$107	\$128	\$166	\$225	\$306	\$406	\$519	\$627
T2: Medicare costs	\$88	\$107	\$95	\$98	\$118	\$159	\$212	\$278	\$344
T2: Medicare savings	-	-	\$33	\$68	\$107	\$147	\$194	\$241	\$283
CT: Medicare costs for nursing home care	\$10	\$13	\$14	\$17	\$22	\$29	\$37	\$45	\$53
T2: Medicare costs for nursing home care	\$10	\$13	\$12	\$10	\$12	\$15	\$20	\$24	\$29
T2: Medicare savings for nursing home care	-	-	\$2	\$7	\$10	\$14	\$17	\$21	\$24
CT: Medicaid costs	\$34	\$39	\$46	\$56	\$72	\$95	\$123	\$151	\$178
T2: Medicaid costs	\$34	\$39	\$37	\$34	\$39	\$49	\$64	\$83	\$99
T2: Medicaid savings	-	-	\$9	\$22	\$34	\$46	\$59	\$69	\$79
CT: Medicaid costs for nursing home care	\$30	\$35	\$40	\$48	\$62	\$82	\$104	\$129	\$150
T2: Medicaid costs for nursing home care	\$30	\$35	\$32	\$30	\$33	\$43	\$55	\$70	\$84
T2: Medicaid savings for nursing home care	-	-	\$8	\$18	\$29	\$39	\$49	\$59	\$66
CT: Federal Medicaid costs for nursing home care	\$17	\$19	\$22	\$28	\$34	\$46	\$59	\$72	\$84
T2: Federal Medicaid costs for nursing home care	\$17	\$20	\$18	\$16	\$18	\$24	\$31	\$39	\$47
T2: Federal Medicaid savings for nursing home care	-	-	\$3	\$12	\$16	\$22	\$28	\$33	\$38
CT: State Medicaid costs for nursing home care	\$14	\$15	\$18	\$22	\$28	\$36	\$46	\$56	\$66
T2: State Medicaid costs for nursing home care	\$14	\$15	\$14	\$13	\$15	\$18	\$24	\$31	\$37
T2: State Medicaid savings for nursing home care	-	-	\$3	\$9	\$13	\$17	\$22	\$25	\$30
CT: Out-of-pocket costs	\$30	\$33	\$40	\$48	\$63	\$85	\$108	\$134	\$157
T2: Out-of-pocket costs	\$30	\$33	\$30	\$29	\$34	\$45	\$58	\$72	\$87
T2: Out-of-pocket savings	-	-	\$10	\$20	\$29	\$40	\$49	\$62	\$70
CT: Out-of-pocket costs for nursing home care	\$16	\$17	\$21	\$24	\$31	\$41	\$52	\$64	\$76
T2: Out-of-pocket costs for nursing home care	\$16	\$17	\$16	\$15	\$17	\$22	\$29	\$35	\$42
T2: Out-of-pocket savings for nursing home care	-	-	\$5	\$9	\$14	\$19	\$23	\$30	\$34
CT: Costs to other payers	\$22	\$23	\$28	\$36	\$47	\$62	\$80	\$101	\$117
T2: Costs to other payers	\$22	\$23	\$21	\$22	\$24	\$33	\$44	\$56	\$64
T2: Other payers savings	-	-	\$7	\$14	\$23	\$29	\$37	\$45	\$53
CT: Costs to other payers for nursing home care	\$2	\$2	\$2	\$2	\$3	\$5	\$6	\$8	\$9

T2: Costs to other payers for nursing home care	\$2	\$2	\$2	\$2	\$2	\$2	\$3	\$5	\$5
T2: Savings to other payers for nursing home care	-	-	\$0	\$0	\$1	\$2	\$2	\$3	\$4
CT: Total costs to all payers	\$172	\$202	\$240	\$307	\$408	\$547	\$717	\$906	\$1,078
T2: Total costs to all payers	\$172	\$202	\$190	\$196	\$239	\$311	\$407	\$522	\$631
T2: Total savings to all payers	-	-	\$50	\$111	\$170	\$236	\$310	\$384	\$447

\* Columns in this table may not sum exactly because of rounding.

**Table B-3. Slowed Progression Trajectory: Progression of Alzheimer’s disease is 10% annually from the mild to the moderate stage and 5% annually from the moderate to the severe stage, and there is no change in onset (T3)\***

<b>People with Alzheimer’s disease (AD)</b>	<b>2010</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>	<b>2040</b>	<b>2045</b>	<b>2050</b>
T3: Number of people with AD (millions)	5.1	5.3	5.8	7.0	8.5	10.4	12.3	14.0	15.0
T3: Number in mild stage (millions)	1.4	1.5	3.3	4.4	5.5	6.6	7.7	8.6	8.9
T3: Percent in mild stage	29%	28%	56%	63%	64%	64%	63%	61%	59%
T3: Number in moderate stage (millions)	1.5	1.6	1.5	1.9	2.4	3.1	3.7	4.4	4.9
T3: Percent in moderate stage	31%	31%	26%	28%	29%	29%	30%	32%	33%
T3: Number in severe stage (millions)	2.0	2.2	1.1	0.7	0.6	0.7	0.8	1.0	1.2
T3: Percent in severe stage	40%	41%	18%	9%	7%	7%	7%	7%	8%
T3: People with AD as a percent of all people age 65+	12%	11%	11%	11%	12%	14%	16%	17%	18%
<b>Costs of Care in billions</b>	<b>2010</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>	<b>2040</b>	<b>2045</b>	<b>2050</b>
CT: Medicare costs	\$88	\$107	\$128	\$166	\$225	\$306	\$406	\$519	\$627
T3: Medicare costs	\$88	\$107	\$108	\$135	\$181	\$248	\$328	\$422	\$509
T3: Medicare savings	-	-	\$20	\$32	\$44	\$58	\$78	\$98	\$118
CT: Medicare costs for nursing home care	\$10	\$13	\$14	\$17	\$22	\$29	\$37	\$45	\$53
T3: Medicare costs for nursing home care	\$10	\$13	\$9	\$9	\$12	\$16	\$19	\$25	\$30
T3: Medicare savings for nursing home care	-	-	\$5	\$8	\$10	\$13	\$17	\$20	\$23
CT: Medicaid costs	\$34	\$39	\$46	\$56	\$72	\$95	\$123	\$151	\$178
T3: Medicaid costs	\$34	\$39	\$32	\$35	\$46	\$60	\$77	\$98	\$116
T3: Medicaid savings	-	-	\$14	\$21	\$26	\$35	\$46	\$54	\$62
CT: Medicaid costs for NH care	\$30	\$35	\$40	\$48	\$62	\$82	\$104	\$129	\$150
T3: Medicaid costs for NH care	\$30	\$35	\$26	\$28	\$34	\$45	\$57	\$72	\$86
T3: Medicaid NH savings	-	-	\$14	\$20	\$28	\$37	\$47	\$56	\$64
CT: Federal Medicaid costs for NH care	\$17	\$19	\$22	\$28	\$34	\$46	\$59	\$72	\$84
T3: Federal Medicaid costs for NH care	\$17	\$19	\$15	\$15	\$19	\$25	\$32	\$40	\$48
T3: Federal Medicaid savings for NH care	-	-	\$7	\$13	\$15	\$21	\$27	\$32	\$37
CT: State Medicaid costs for NH care	\$14	\$15	\$18	\$22	\$28	\$36	\$46	\$56	\$66
T3: State Medicaid costs for NH care	\$14	\$15	\$11	\$12	\$15	\$20	\$25	\$32	\$38
T3: State Medicaid costs for NH care	-	-	\$6	\$10	\$13	\$16	\$21	\$24	\$29
CT: Out-of-pocket costs	\$30	\$33	\$40	\$48	\$63	\$85	\$108	\$134	\$157
T3: Out-of-pocket costs	\$30	\$33	\$32	\$40	\$53	\$69	\$89	\$113	\$132
T3: Out-of-pocket savings	-	-	\$8	\$8	\$10	\$16	\$18	\$21	\$25
CT: Out-of-pocket costs for nursing home care	\$16	\$17	\$21	\$24	\$31	\$41	\$52	\$64	\$76
T3: Out-of-pocket costs for nursing home care	\$16	\$17	\$13	\$14	\$17	\$22	\$29	\$37	\$42
T3: Out-of-pocket savings for nursing home care	-	-	\$8	\$10	\$14	\$19	\$23	\$27	\$34
CT: Costs to other payers	\$22	\$23	\$28	\$36	\$47	\$62	\$80	\$101	\$117
T3: Costs to other payers	\$22	\$23	\$28	\$36	\$48	\$65	\$85	\$106	\$123
T3: Other payers savings	-	-	\$0	\$0	\$+1	\$+3	\$+5	\$+5	\$+6
CT: Costs to other payers for nursing home care	\$2	\$2	\$2	\$2	\$3	\$5	\$6	\$8	\$9
T3: Costs to other payers for nursing home care	\$2	\$2	\$1	\$1	\$2	\$2	\$3	\$5	\$5

T3: Savings to other payers for nursing home care	-	-	\$1	\$1	\$1	\$2	\$2	\$3	\$4
CT: Total costs to all payers	\$172	\$202	\$241	\$307	\$408	\$547	\$717	\$906	\$1,078
T3: Total costs to all payers	\$172	\$202	\$201	\$247	\$329	\$441	\$580	\$736	\$881
T3: Total savings to all payers	-	-	\$40	\$61	\$79	\$105	\$136	\$170	\$197

\* Columns in this table may not sum exactly because of rounding.