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Actuarial Cost Estimate: Oregon House Bill 3000

A Bill for an Act Relating to Autism Spectrum Disorder- Creating New Provisions and Amending ORS 414.710 and 743A.190

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Background

Oliver Wyman Actuarial Consulting, Inc. (Oliver Wyman or we) has been engaged by Autism Speaks to develop a cost model in order to analyze and estimate the impact of mandated insurance benefits for autism spectrum disorders (ASD) on insurance premiums. As part of this work, Oliver Wyman has developed a range of independent estimates of the impact on insurance premiums of the benefits mandated by Oregon House Bill 3000 which provides coverage for the diagnosis and treatment of autism spectrum disorders.

Oliver Wyman is a part of the Marsh & McLennan (MMC) family of companies. With over 60 members of the American Academy of Actuaries, Oliver Wyman is one of the largest actuarial practices in North America. Oliver Wyman's health practice, which has twelve credentialed actuaries, advises insurers, regulators, governments, interest groups, and others.

This report, along with its supporting analysis, was developed by Marc Lambright, a Principal and consulting health actuary in Oliver Wyman's Philadelphia office. Marc is a Fellow of the Society of Actuaries and a member of the American Academy of Actuaries and is professionally qualified to analyze the cost impact of House Bill 3000 and provide the estimates shown in this report. As part of Oliver Wyman's quality assurance process, the underlying analysis and this report were independently peer reviewed by another credentialed Oliver Wyman actuary.

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Scope and Limitations

The intent of this analysis is to provide a reasonable range of estimates for the insured costs of the mandated ASD benefits provided for in House Bill 3000 and the associated premium impact on the markets affected by House Bill 3000. This analysis makes no attempt to quantify potential offsetting cost savings associated with successful ASD treatment, nor does it include any estimate of the potential reduction in other government expenditures associated with providing ASD services that might overlap with the benefits provided by this mandate. Therefore, the reader is cautioned that this report should only be considered a cost analysis, and not be misconstrued as a cost-benefit analysis when assessing the merit of House Bill 3000.

We note that cost estimates for autism mandates have varied widely state to state based on differences in the state-specific mandates and the methods and assumptions used in estimating costs, though typically independent estimates show premium increases due to mandated autism benefits of less than 1%. A March 2009 report of The Council for Affordable Health Insurance states: "CAHI's actuarial working team estimates that an autism mandate increases the cost of health insurance by about 1 percent."[1] The reason for this variability is that the largest component of the increase in costs under the House Bill 3000 mandated ASD benefits is for behavioral therapy, including applied behavior analysis (ABA), which is almost universally excluded from health coverage, and therefore essentially no insured data exists for use in developing credible utilization and unit cost estimates for ABA.

The reader is further cautioned that the ultimate cost of covering ABA benefits is uncertain; however, this analysis attempts to reflect the likely behavior of consumers, providers and insurers of ABA services in developing the assumptions underlying the cost estimates. Likewise, the additional costs for mandated medical services other than ABA are uncertain. Insurance policies often cover some services for children diagnosed with an ASD, although the mandate could cause the insured costs for certain services to

[1] The Council for Affordable Health Insurance. "The Growing Trend Towards Autism Coverage." March 2009.

increase because ASD exclusions are common, and certain services that may have been denied or terminated following utilization review might be covered due to the mandate.

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Description of Key House Bill 3000 Provisions and their Impact on Covered Benefits

Insurance Markets Covered by the Mandate

The Bill applies to "*A health benefit plan, as defined in ORS 743.730*". Per ORS 743.730: "*'Health benefit plan' means any hospital expense, medical expense or hospital or medical expense policy or certificate, health care service contractor or health maintenance organization subscriber contract, any plan provided by a multiple employer welfare arrangement or by another benefit arrangement defined in the federal Employee Retirement Income Security Act of 1974, as amended."* House Bill 3000 appears to apply to polices covering health benefits in the individual, small group (2-50 employees), and large group (51+ employees) insurance markets.

Covered Benefits

The mandate provides for the diagnosis and treatment of autism spectrum disorders, by stating that *"A health benefit plan, as defined in ORS 743.730, must reimburse the costs of diagnostic assessment and treatment for autism spectrum disorder…Treatments that must be covered under this section are:*

(a) Prescription drugs;
(b) Blood level tests;
(c) Direct or consultation services of a psychiatrist or a psychologist;
(d) Applied behavior analysis; and
(e) Speech, language, occupational and physical therapies."

The inclusion of applied behavior analysis (ABA), as a treatment is especially important. The coverage of behavioral therapies, including ABA, has the most significant impact on cost of any mandated service. For the purpose of this report, reference to ABA encompasses all behavioral therapies. We note ABA is the most widely accepted behavioral therapy and that we would expect other approved behavioral programs to have similar costs.

ABA programs are marked by intensive therapy that may include 30-40 hours of therapy a week under the most intensive programs, although many programs would not utilize

that level of resources. Key assumptions underlying our ABA cost estimates are outlined in Section 5.

Annual Maximum Benefit for Applied Behavior Analysis

The Bill specifically states that *"Treatments covered under this section: (a) May be limited to costs totaling $36,000 per year, increased annually beginning January 1, 2012, by the percentage increase in the Portland-Salem Consumer Price Index for All Urban Consumers for All Items as reported by the United States Bureau of Labor Statistics…"*

Maximum Age for Benefits

The Bill contains the following language that limits the ages for which insureds may receive covered ASD services: *"must reimburse the costs of diagnostic assessment and treatment for autism spectrum disorder for enrollees who are under 21 years of age"*. Therefore our analysis assumes that mandated benefits will only impact the covered benefits of those ages 20 and under.

Medical Necessity and Treatment Review

The Bill specifically states that *"Coverage is not required under this section unless the treatment is: (a) For an autism spectrum disorder; (b) Identified in a treatment plan that is: (A) Developed by a licensed psychologist, psychiatrist or psychiatric nurse practitioner pursuant to a comprehensive evaluation or reevaluation; and (B) Reviewed no less frequently than once every six months by the treating psychologist, psychiatrist or psychiatric nurse practitioner…"*

Therefore, we assume that ASD benefits under the Bill may be subject to utilization review. This is important as insurers will develop protocols to review treatments and manage care which will limit unnecessary treatments if reviews are done appropriately.

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Modeling Methodology

The following outlines the general modeling methodology used to develop our cost estimates. Estimates were developed both on a per covered person per year basis, and as a percentage of average annual premiums, as shown in Section 6. Details of key assumptions are discussed in Section 5 and illustrated graphically in the exhibits shown in Appendix 1.

Modeling Perspective

Our model was developed to produce costs under a range of assumptions, but generally assumes that a sufficient supply of providers would be available to meet the demand for autism services, especially with regard to ABA services. It also assumes that there would be sufficient awareness of autism and motivation (primarily by parents) to seek treatment so that the diagnosis and treatment of ASDs would be more in-line with CDC prevalence estimates. We would expect that it would take at a minimum of several years for both the supply of providers to meet the demand for mandated ASD services and for parents of autistic children to aggressively seek diagnosis and treatment of their children's disorders.

In spite of these real limitations that will likely limit short-term costs associated with mandated autism benefits, we feel that it is appropriate from a public policy perspective to look at the costs from a longer term perspective and assume that both awareness of ASDs will increase and that supply and demand for ASD services would eventually be in balance. We have developed our estimates with this in mind.

Acknowledging that short-term costs are also important to policymakers, in the sections outlining our cost estimates, we have included illustrative exhibits showing the possible progression of costs for mandated benefits by assuming that initial costs would be roughly one-half of the long-term estimates. We also assumed that it would take five years for costs to reach their ultimate levels, although these assumptions varied by cost scenario.

In the near term, we would note that the supply of ABA service providers, specifically credentialed Board Certified Behavior Analysts (BCBAs) and Board Certified Associated Behavior Analysts (BCaBAs) would not be sufficient to meet the demand for ABA programs if ABA benefits are mandated. There are currently approximately 16[2] certified BCBAs and BCaBAs in Oregon, which translates to about one certified behavioral analyst per every 347 individuals 20 years old or younger currently being treated for ASD. While it is true that not all autistic children will have an ABA program, it is also true that behavioral analysts provide services to individuals other than autistic children. It is reasonable to conclude that demand for ABA services, at least initially, would far exceed supply should health care coverage similar to that mandated by House Bill 3000 become typical.

It is also instructive to look at some of the limited evidence available related to actual costs of ABA mandated benefits in other states. Aetna noted in December 2008 that it had tracked the cost of the autism mandate in Texas for its first year of existence and found that it increased costs for policyholders who filed autism-related claims by $379 a month. A total of 235 policyholders had filed autism claims in the state as of the time the data was released. At that time, the company had not decided whether to pass those costs on to the policyholders because the cost of the mandate might change after the first year.[3] While this is only first year experience for a single insurer, it illustrates that initial mandate costs are likely low. Aetna's Texas block of business is quite large (approximately $1.5 - 2.0 billion in premium[4]), so the statistics provided indicate a mandate cost of less than 0.1% of premium.

General Modeling Process

The modeling process employed to develop our cost estimates was as follows:

1. Assumed treated prevalence for the United States is 1 in 150 based on the CDC's estimate of ASD prevalence in the United States.
2. Prevalence rates by diagnostic subtype (autistic disorder, PDD-NOS, Asperger's Syndrome) were estimated separately, since diagnosis patterns and service utilization could reasonably be expected to vary by diagnostic subtype.
3. The percentage of children diagnosed by age for each diagnostic subtype was estimated so that the average ages of diagnosis implicit in the modeling are consistent with publicly available age at diagnosis statistics.[5]
4. The percentage of diagnosed children who could be expected to have an ABA program was estimated for each age based on assumptions regarding how many children would start a program and typical program continuance.

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[2] BACB Certificant Registry. http://www.bacb.com/cues/frame_about.html. Accessed January 2009.

[3] Associated Press. *Lawmaker: Oklahoma autism bill has momentum.* December 4, 2008. http://newsok.com/article/3327594. Accessed January 2009.

[4] NAIC Annual Statements for 2007.

[5] IAN database. http://dashboard.ianexchange.org/StateStatsAdvanced.aspx?A1=VA&ADU=T. Accessed January 2009.

5. A distribution of the number of annual hours for ABA by age was developed based on ABA provider input and an assumption that utilization review by insurers would impact utilization to some degree.
6. Based on the assumed treatment prevalence, likelihood of having an ABA program, assumed distribution of ABA program hours, and estimated ABA program cost per hour of therapy, ABA cost estimates by age were developed.
7. Non-ABA costs were estimated based upon studies of medical costs for children diagnosed with ASD and judgment regarding the increase in costs that could be expected due to the mandated benefits.
8. Based on Census demographic data and the cost estimates for mandated ASD services by age as outlined in 1-7 above, an annual cost per covered individual was developed.
9. The cost of services was increased to reflect administrative and other insurer costs or profit charges.
10. The estimated size of the covered market was developed based on Census, Medical Expenditure Panel Survey (MEPS) enrollment and premium information for Oregon, and Kaiser Family Foundation coverage data. These assumptions are further documented in Section 5.
11. The cost of the mandated services per covered person and as a percentage of premiums were calculated based on the model cost estimates and market data under a range of assumptions to develop “Low,” “Middle,” and “High” cost scenario estimates.

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Summary of Key Assumptions

Key assumptions underlying the cost estimates for the proposed mandated benefits are summarized in this section. In order to better illustrate the sensitivity of costs to various assumptions, we developed assumptions for "Low," "Middle," and "High" cost scenarios. Appendix 1 further illustrates these assumptions for the "Middle" scenario.

Treated Prevalence and Age at Diagnosis

Overall treated prevalence is based on the 2007 CDC[6] study estimating United States ASD prevalence of 1 in 150. Prevalence by diagnostic subtype was estimated based on an academic study published in the American Journal of Psychiatry.[7]

As noted in the previous section, the percentage of children diagnosed by age for each diagnostic subtype was estimated so that the average age of diagnosis implicit in the modeling is consistent with publicly available age at diagnosis statistics.

The treated prevalence and age at diagnosis assumptions for Oregon are shown below:

	Oregon Prevalence	
Diagnostic Subtype	Ultimate Prevalence	Average Age of Diagnosis
Autistic Disorder	1 in 450	3
PDD-NOS	1 in 300	3
Asperger's	1 in 900	6
All ASD	**1 in 150**	

[6] Centers for Disease Control. Morbidity and Mortality Weekly Report. February 9, 2007.

[7] Fombonne, E. and S. Chakrabarti. American Journal of Psychiatry. June 2005.

ABA Program Utilization and Cost

ABA Program Utilization by Age

ABA programs require a significant commitment from affected children, as well as their families. It is likely that a significant number of ASD children will not have an ABA program regardless of the availability of a provider, and many others diagnosed with ASD, especially those in more rural areas, may have difficulty accessing a provider. For this reason, we have assumed that 40% to 66.7% (40% for "Low" scenario, 50% for "Middle" and 66.7% for "High") of diagnosed children under age 6 will begin an ABA program. Based on discussions with ABA providers and researchers, actual utilization of ABA programs has been lower in many cases due to the lack of providers, the lack of coverage, and to some extent the limited understanding of ABA programs and their efficacy.

In Minnesota, a state that is widely regarded as having some of the most extensive ABA coverage and services in the nation, provider data indicates ABA utilization of approximately 20% of diagnosed three to six year olds[8], which is considerably lower than assumed in each of the scenarios in our modeling. While our range of assumptions for ABA utilization may appear conservative, and likely is conservative in the near-term, we feel that the range is reasonable since insurers will likely have some conservatism in their cost estimates and premium rates. Private insurance utilization will also likely be higher than under the public/private programs in Minnesota, and utilization could increase over time due to increased awareness of ASD, and potentially an increased supply of ABA providers.

In addition to the likelihood of starting a program, program continuance assumptions have a very significant impact on overall ABA utilization and cost estimates. ABA programs are generally geared towards addressing deficits in younger children and are not intended to be continued indefinitely. For this reason, we have assumed that no programs would terminate prior to school age, that a large percentage of ABA programs would terminate at ages six and seven when an autistic child could be expected to enter elementary school, and annually thereafter a large percentage of remaining programs would terminate until only a very small percentage of children have ABA programs in their teenage years. Programs would be expected to terminate if a child has experienced sufficient progress whereby a program is no longer necessary or if the insurer or family sees no progress, as well as for other reasons.

[8] Discussion with Dr. Eric Larsson Executive Director, Clinical Services, The Lovaas Institute for Early Intervention Midwest Headquarters regarding ABA utilization research in Minnesota. February 2009.

The assumed percentage of children diagnosed with ASD that have an ABA program by age for our "Middle" scenario is shown in the table below:

	% of Diagnosed Children w/ ABA
Under 6	50.0%
6	37.5%
7	25.0%
8	16.7%
9	11.1%
10	7.4%
11	4.9%
12	3.3%
Ages 13 to 20	2.5%

ABA Program Annual Number of Hours

In developing the assumed annual ABA program hours, we discussed typical ABA programming with ABA providers, and reviewed some benefit materials from one of the few large self-insured employers who offer ABA benefits.[9] For three age bands we developed a distribution of expected hours that resulted in the annual averages shown in the table below:

	Average ABA Program Hours
Ages Under 8	1,500
Ages 8 to 12	671
Ages 13 to 20	401

The general assumption is that pre-school aged children will have programs for 20 to 40 hours a week, averaging about 30 hours a week. This time will be reduced by over half by age eight when children would be expected to be in school and the school system would be required to provide services during the school day, and would then again be reduced significantly at age 13 as the child ages and ABA programs would be expected to be less time consuming and address a smaller number of behavioral deficits.

Cost per Hour of ABA Service

In developing the costs per hour, we reviewed ABA program staffing information and ABA provider wage and overhead cost assumptions. We developed an average cost for the entire United States and then adjusted this for Oregon, based on Bureau of Labor Statistics[10] health care wage data. The resulting average cost per hour of ABA therapy in Oregon is $51.45 for a program based on the assumption that staffing will be in line with what best practices might recommend. This is the cost underlying our "High" assumption, though we note that costs would vary based on the mix of professionals and technicians providing the services, and likely would be lower if less experienced ABA practitioners need to be employed to meet the increasing demands for services.

[9] Autism Therapy Reference- Microsoft Corporation (administered by Premera Blue Cross).

[10] BLS wage data. http://www.bls.gov/guide/geography/wages.htm accessed January 2009.

Range of Annual ABA Program Costs for Scenario Estimates

Given the actual cost of an ABA program could vary significantly for many reasons, we have assumed annual average program costs by scenario as follows:

"Low" cost scenario - assumes average ABA program cost is $25,000 per year.
"Middle" cost scenario - assumes average ABA program cost is $30,000 per year.
"High" cost scenario - based on the assumptions outlined in this section for the continuance of ABA programming, the number of annual hours for ABA programming, the $36,000 annual cap, and an hourly rate of $51.45, the calculated average annual cost for an ABA program for all ages is $33,737.

Other (than ABA) Medical Costs

Based on several studies[11], we estimated that children with ASDs had costs covered by insurers of approximately three times the average for non-inpatient medical services under current benefit programs. It is also clear that the mandate would mean that some services that an insurer could currently deny or exclude would now be covered. In our range of estimates, we assumed that the mandate would result in additional insured medical costs equal to 50% to 100% of the current level of estimated covered non-inpatient costs.

The estimated annual cost for additional non-ABA services (note many non-ABA medical services are already provided to individuals with ASD) that would be covered as a result of the mandate are shown for each scenario in the table below:

Scenario	Non-ABA Medical Costs
Low	$1,800
Middle	$2,700
High	$3,600

(Amounts in 2009 dollars)

Administrative Costs

Typically, medical claim costs could be expected to be 80 to 90% of premiums, meaning 10 to 20% of premiums are available for administration, profit, or other costs, often collectively referred to as "retention." We have estimated the incremental retention charge to be 15% of premium.

Oregon Market Data

The MEPS survey provides average premiums, enrollees, offer rates, take-up rates, and self-insured percentages by employer size for healthcare coverage sponsored by privately insured employers. From this data we can estimate the size of the privately insured small group, insured large group, and self-insured markets. State-specific premium data for

[11] Mandell, Cao, Ittenbach, & Pinto-Martin, 2006. Croen, Najjar, Ray, Lotspeich, & Bernal, 2006. Liptak, Stuart, & Auinger, 2006.

Oregon was available for 2006[12], so we trended this based on average recent employer premium increases provided from the Kaiser Family Foundation HRET[13] survey to estimate the 2009 average annual premium per member necessary to compute the cost of mandated benefits as a percentage of annual premiums.

To estimate average premiums for the individual market, we reviewed survey results developed by America's Health Insurance Plans[14] which showed average premiums and members per policy by state, insurer annual statement exhibits, and Oregon Medical Insurance Pool premium rates[15]. The Oregon Medical Insurance Pool is a high-risk pool whose rates are calculated as 125% of the Commercial premium rates for individual policies.

In developing our premium and membership estimates, we completed reasonableness tests by reviewing insurer annual statement filings to ensure that the individual and group premium estimates were not unreasonable.

[12] MEPS state survey data. http://www.meps.ahrq.gov/mepsweb/data_stats/state_tables.jsp?regionid=-1&year=-1. Accessed January 2009.

[13] Kaiser Family Foundation and Health Research Educational Trust. Employer Health Benefits- 2008 Annual Survey.

[14] AHIP Individual Health Insurance 2006 - 2007: A Comprehensive Survey of Premiums, Availability, and Benefits. http://www.ahipresearch.org/pdfs/Individual_Market_Survey_December_2007.pdf. Accessed January 2009.

[15] http://www.oregon.gov/DCBS/OMIP/docs/premium_rates.pdf. Accessed May 2009.

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Cost Estimates

Long-Term Cost Estimates - "Middle" Cost Scenario

The table below summarizes our "Middle" scenario average annual cost estimates and premium increases on a per covered person basis, and as a percentage of the annual premiums for each market. Our "Middle" estimate is that in the long-term, the premium increase associated with the mandated benefits provided by House Bill 3000 would be about 0.40% of insured premiums assuming that the individual, small group, and large group private insurance markets are covered by the Bill. However, we note that costs could be lower in the years immediately following the passage of the mandate due to the limited supply of ABA therapists.

The estimated cost increases for the individual, small group, and large group markets are shown in the table below. The annual claim cost per covered person estimate of $12.10, and premium increase of $14.20 are in 2009 dollars.

	Market			
	Individual	Small Group	Large Group	All
Covered Persons	227,000	396,000	473,000	1,096,000
Average Premium per Person	$2,300	$3,700	$4,000	$3,540
Annual Mandate Claim Cost per Covered Person	$12.10	$12.10	$12.10	$12.10
Claim Cost as a Percentage of Premium	0.53%	0.33%	0.30%	0.34%
Estimated Premium Increase with Admin @ 15%	$14.20	$14.20	$14.20	$14.20
Premium Increase as a Percentage of Premium	0.62%	0.38%	0.36%	0.40%

Scenario Estimates

As discussed in Section 1, very little insurance data exists that can be used to directly estimate the costs of ABA benefits mandated by House Bill 3000. This causes uncertainty in developing actuarial assumptions and cost estimates. Due to this uncertainty, it is useful to develop cost estimates for scenarios using optimistic and pessimistic assumptions.

Cost estimates are very sensitive to various assumptions, especially those related to ABA utilization and costs. Therefore, we varied our assumptions to develop estimated costs for ASD services under "Low," "Middle," and "High" cost scenarios, as shown in the table below:

Scenario	% Diagnosed Under Age 6 Starting ABA	Avg. Annual ABA Program Cost	Avg. Annual non-ABA Cost	Annual Premium Increase per Person	Premium Increase (% of Premium)
Low	40.0%	$25,000	$1,800	$9.40	0.27%
Middle	50.0%	$30,000	$2,700	$14.20	0.40%
High	66.7%	$33,737	$3,600	$20.40	0.58%

Short-Term Cost Estimates by Scenario

In addition to the uncertainty associated with long-term cost estimates, how quickly costs could reach their ultimate level due to the limited supply of ABA therapists is also uncertain. We have provided the table below to illustrate the potential short-term increases in premiums, and how they could grade into the long-term estimates over time.

Estimated Increase in Premiums due to HB 3000 by Year						
Scenario	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Years 6 and Beyond**
Low	0.09%	0.12%	0.16%	0.19%	0.23%	0.27%
Middle	0.20%	0.24%	0.28%	0.32%	0.36%	0.40%
High	0.38%	0.42%	0.46%	0.50%	0.54%	0.58%

Individual Market Comments

In developing the individual market cost estimates, we reviewed Oregon underwriting and rating rules and noted that Oregon has fairly liberal eligibility rules and uses adjusted community rating meaning that rates cannot be adjusted due to health status. In addition, the Oregon Medical Insurance Pool has reasonable rates (approximately 125% of Commercial rates). Generally access to insurance in Oregon is good, and therefore we would not expect that the inclusion of the mandated autism benefits would lead to a significant change in the risks insured in the individual market.

Appendix 1

Cost Assumptions – Illustrative Exhibits

EXHIBIT I - SUMMARY OF HOUSE BILL 3000 "MIDDLE" SCENARIO ASSUMPTIONS AND COSTS

State Oregon

Mandate Market

Individual	Yes
Small Group	Yes
Large Group	Yes

Additional Annual Medical Costs for Non ABA Services

Under 23	$ 2,700

Annual Limits by Covered Service

	Hours Limit	Max Hours	Dollar Limit	Max $s
ABA	No	-	Yes	$36,000

Key Assumptions:

United States Prevalence

Diagnostic Subtype	Ultimate Prevalence	Average Age of Diagnosis
Autistic Disorder	1 in 450	3
PDD-NOS	1 in 300	3
Asperger's	1 in 900	6
All ASD	**1 in 150**	

Oregon Prevalence Adjustment: 1.00

Oregon Prevalence

Diagnostic Subtype	Ultimate Prevalence	Average Age of Diagnosis
Autistic Disorder	1 in 450	3
PDD-NOS	1 in 300	3
Asperger's	1 in 900	6
All ASD	**1 in 150**	

% of Diagnosed Children w/ ABA	
Under 6	50.0%
6	37.5%
7	25.0%
8	16.7%
9	11.1%
10	7.4%
11	4.9%
12	3.3%
Ages 13 to 20	2.5%

Average ABA Program Hours	
Ages Under 8	1,500
Ages 8 to 12	671
Ages 13 to 20	401

Average cost of ABA Program: $30,000

Market	Coverage Estimates: Number of Persons Covered	Premium (Per Person)	Total Premium	Costs Excluding Administrative Expense: Costs	Costs (% of Premium)	Cost (Per Covered Person)	Premium Increase including Admin @ 15%: Incremental Premium	Premium Increase %	Annual Increase per Covered Person
Individual	227,000	$ 2,300	$ 522,100,000	$ 2,746,700	0.53%	$ 12.10	$ 3,231,000	0.62%	$ 14.20
Small Group	396,000	3,700	1,465,200,000	4,791,600	0.33%	12.10	5,637,000	0.38%	14.20
Large Group	473,000	4,000	1,892,000,000	5,723,300	0.30%	12.10	6,733,000	0.36%	14.20
Total	1,096,000	$ 3,540	$ 3,879,300,000	$ 13,261,600	0.34%	$ 12.10	$ 15,602,000	0.40%	$ 14.20

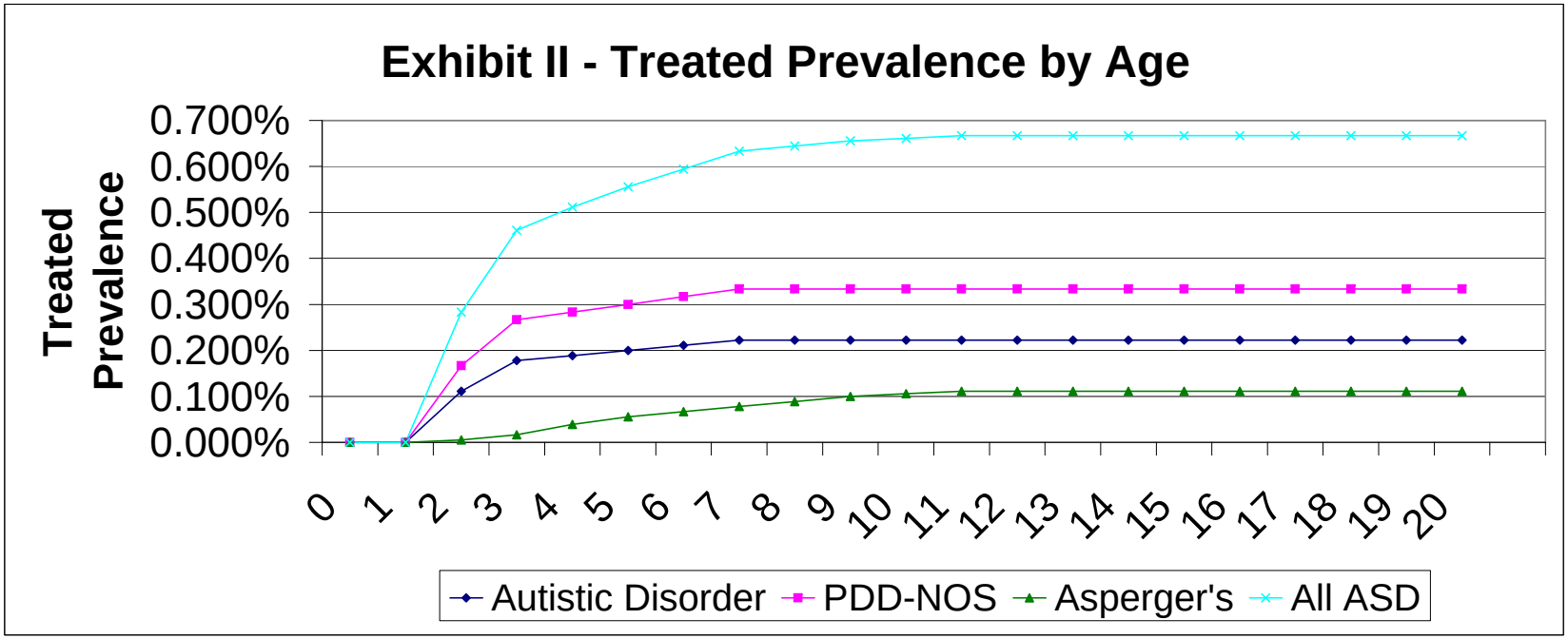
Exhibit II - Treated Prevalence by Age
Treated Prevalence
0.700%
0.600%
0.500%
0.400%
0.300%
0.200%
0.100%
0.000%
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Autistic Disorder
PDD-NOS
Asperger's
All ASD

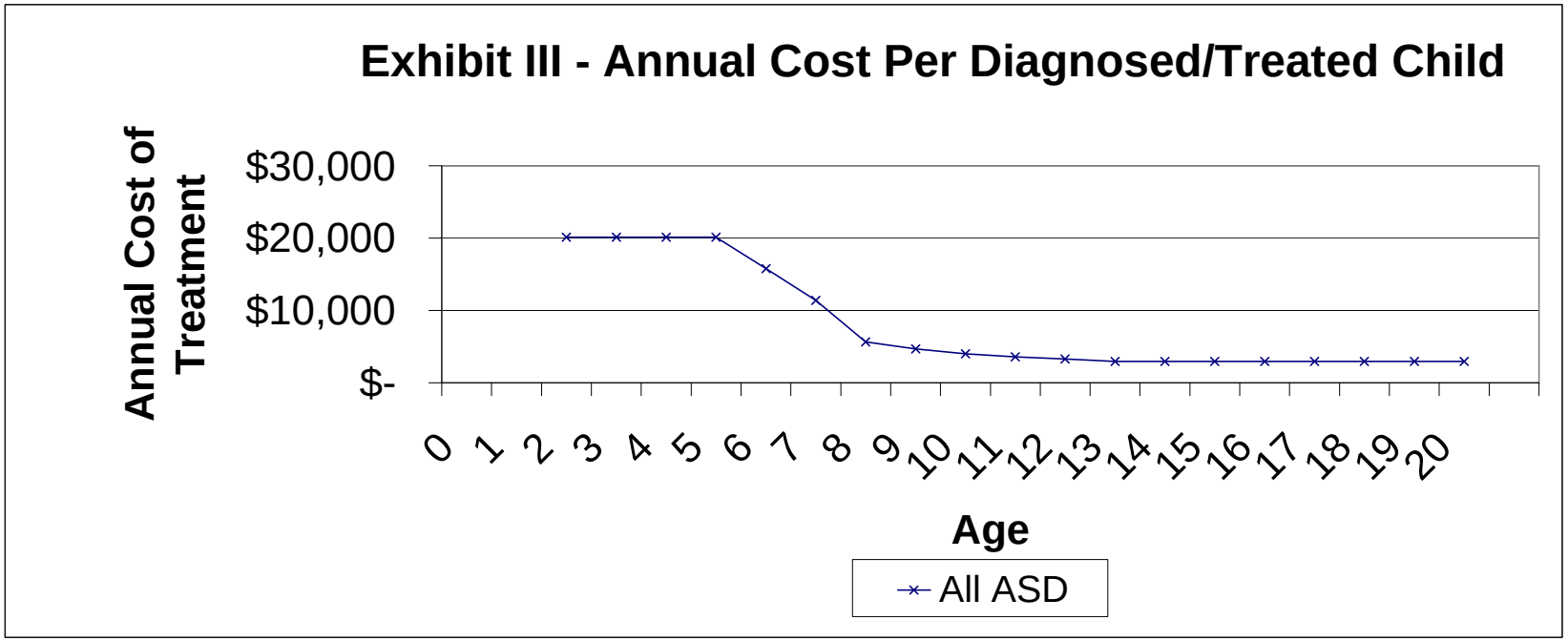
Exhibit III - Annual Cost Per Diagnosed/Treated Child
Annual Cost of Treatment
$30,000
$20,000
$10,000
$-
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Age
All ASD

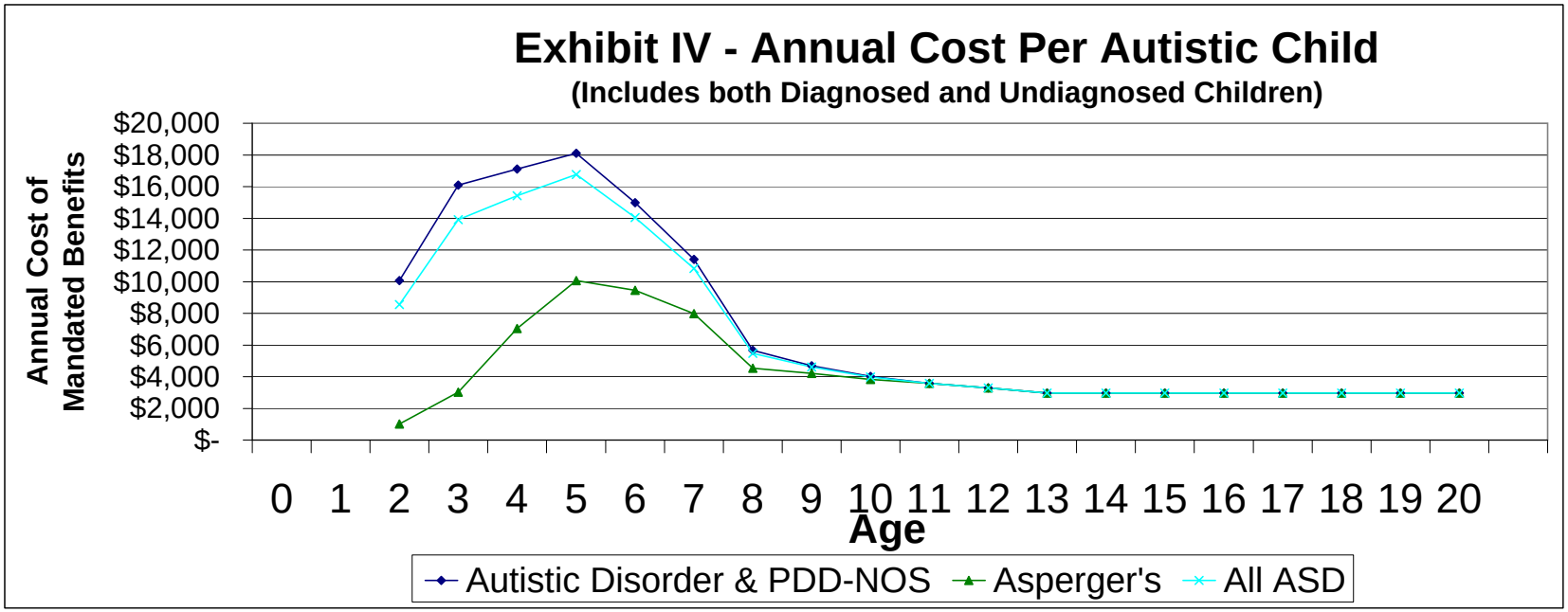
Exhibit IV - Annual Cost Per Autistic Child
(Includes both Diagnosed and Undiagnosed Children)
Annual Cost of Mandated Benefits
$20,000
$18,000
$16,000
$14,000
$12,000
$10,000
$8,000
$6,000
$4,000
$2,000
$-
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Age
Autistic Disorder & PDD-NOS
Asperger's
All ASD

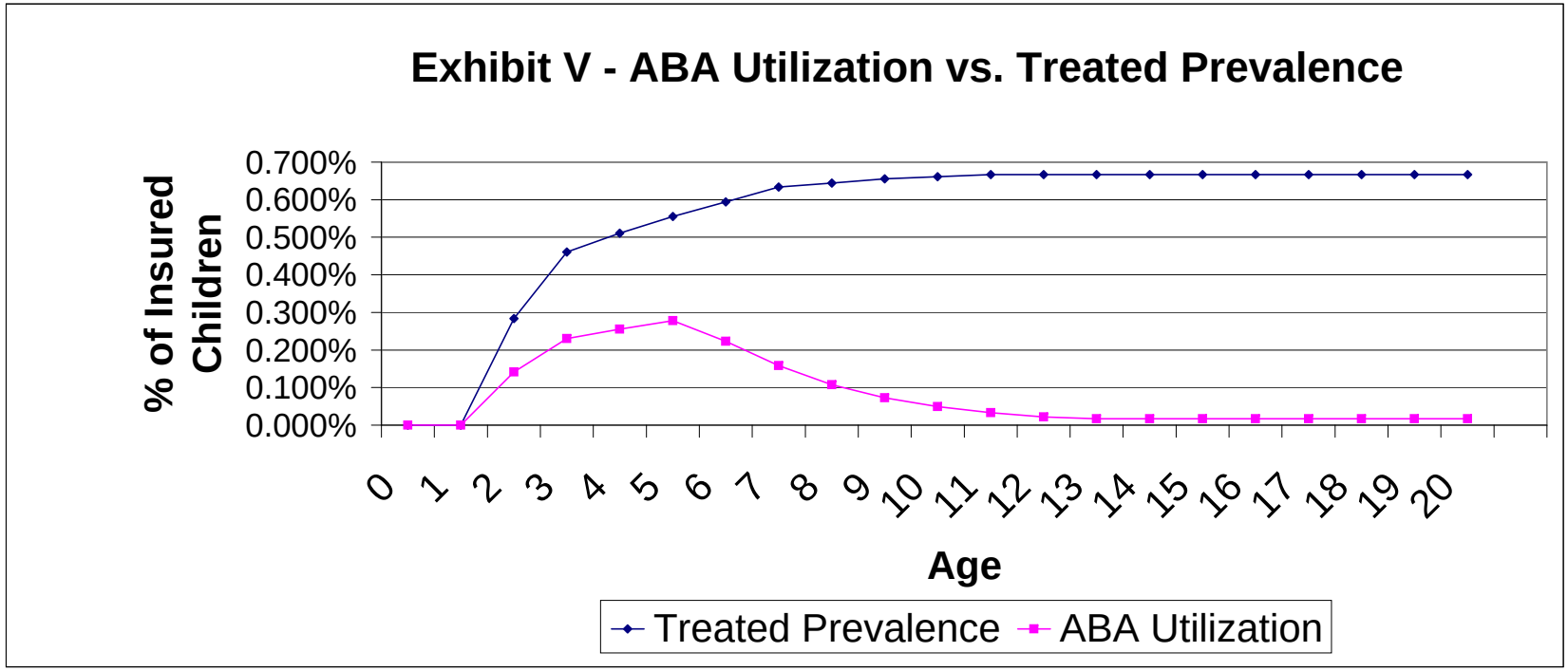
Exhibit V - ABA Utilization vs. Treated Prevalence
% of Insured Children
0.700%
0.600%
0.500%
0.400%
0.300%
0.200%
0.100%
0.000%
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Age
Treated Prevalence
ABA Utilization

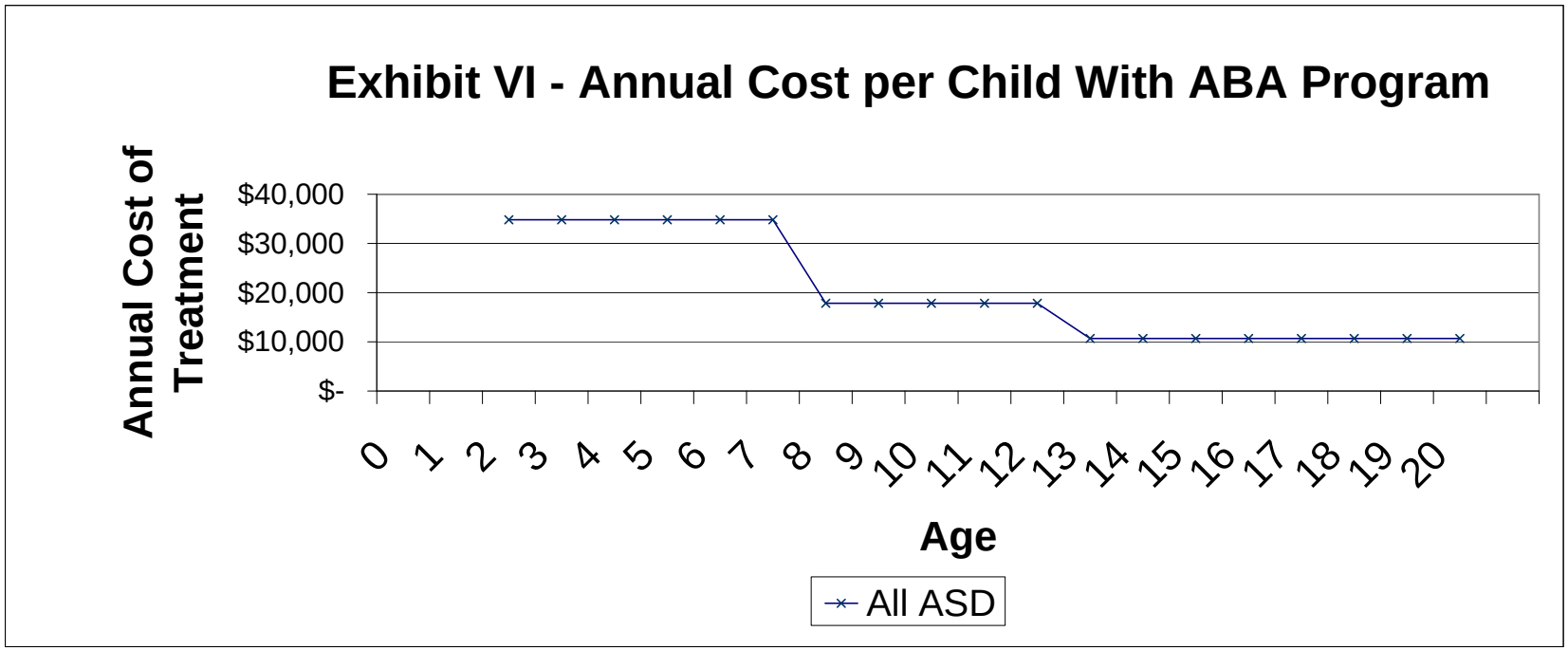
Exhibit VI - Annual Cost per Child With ABA Program
Annual Cost of Treatment
$40,000
$30,000
$20,000
$10,000
$-
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Age
All ASD

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