



**SOUTH CAROLINA REVENUE AND FISCAL AFFAIRS OFFICE**  
**STATEMENT OF ESTIMATED FISCAL IMPACT**  
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<b>Bill Number:</b>	H. 4214	Introduced on March 7, 2019
<b>Author:</b>	Rose	
<b>Subject:</b>	Medical Care for Children with Autism	
<b>Requestor:</b>	House Medical, Military, Public, and Municipal Affairs	
<b>RFA Analyst(s):</b>	Miller and Shuford	
<b>Impact Date:</b>	April 16, 2019	Updated for Additional Agency Response

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### **Fiscal Impact Summary**

The fiscal impact of this bill depends upon the determination of defrayment. Under the Affordable Care Act (ACA), a state is responsible for defraying the cost of newly mandated insurance coverage, unless an exception applies. If the State is required to defray, this bill will increase state expenditures by approximately \$1,166,000 to cover the additional insurance coverage for autistic spectrum disorder (ASD). Because insurance contracts run on a calendar basis the General Fund expenditure impact will be one half, \$583,000, in FY 2019-20. In FY 2020-21, the General Fund expenditure impact will increase by another \$583,000 for a total recurring impact of \$1,166,000, beginning in FY 2020-21. Also, if litigation is required to resolve the defrayment issue, then additional expenses may be incurred. If the State is not responsible for defrayment there will be no increase in General Fund expenditures.

This bill will have no expenditure impact for the Department of Insurance (DOI), as it does not change the current responsibilities of the agency. However, if the State is required to defray and DOI is placed in charge of the distribution of funds to the insurer, there may be an undetermined increase in the General Fund, beginning in FY 2020-21, because of the increase of administrative costs to manage defrayment.

This bill will have no expenditure impact for the Public Employee Benefit Authority (PEBA) because all age limits and the limits regarding coverage related to age and dollar amounts in the State Health Plan for ASD were removed for the health care plan in 2015.

This bill may increase General Fund and Other Funds insurance premium tax revenue by an undetermined amount, if non-qualified health plans increase premiums for additional mandated insurance coverage for ASD. Additionally, if the State is not subject to defrayment, General Fund and Other Funds insurance premium tax revenue will increase by approximately \$14,247 and \$328 respectively, beginning in FY 2020-21, due to the increase in premiums for qualified health plans (QHPs).

### **Explanation of Fiscal Impact**

**Updated for Additional Agency Response on April 16, 2019**

**Introduced on March 7, 2019**

**State Expenditure**

This bill adds a uniform definition for autism spectrum disorder (ASD) in the South Carolina Intellectual Disability, Related Disabilities, Head Injuries, and Spinal Cord Injuries Act §44-20-10 et seq. and the Accident and Health Insurance §38-71-10 et seq.

Current law defines autism or ASD in a slightly different manner under each of these code sections. The modified definition reflects the current medically accepted definition of ASD and does not alter the function of §§44-20-10 et seq. and 38-71-10 et seq. It does not fiscally or operationally impact the Department of Disabilities and Special Needs or the Department of Insurance. Therefore, the updated definition would not have an expenditure impact for these agencies.

Additionally, this amended bill would expand the required insurance coverage by deleting existing age limits. Furthermore, the bill expands the definition of insurer to include admitted and non-admitted insurers and expands the definition of the health insurance plan to include all health insurance policies and health benefit plans for the purposes of ASD coverage. Further, this bill removes the age limits for diagnoses to be eligible for coverage and the age limit for coverage. Additionally, behavioral therapy is no longer subject to a maximum spending limit. This bill takes effect upon the signing of the Governor.

Current law excludes Individual and Small Group health insurance markets from the definition of insurer and health care plan. Additionally, a person must be diagnosed by the age of 8 to be eligible to receive coverage and insurers must cover a person until he is 18. Also, under current law behavioral therapy is covered only up to \$50,000 plus inflation.

Under the Affordable Care Act (ACA), the State may be required to pay the cost of the additional coverage for qualified health care plans. This determination rests on whether the services required by the bill are considered a new additional benefit that is not considered an essential health benefit or an extension of current benefits. At this time, the answer to these legal questions is unclear. There is no history of a state triggering the reimbursements or precedent for state payments for expanded coverage requirements, and the responsibilities of a state with regard to this component of the ACA have not been established. If State liability is established, then the estimated costs are described below. If litigation is required to resolve this issue, then additional expenses may be incurred.

**Department of Insurance (DOI).** The bill will expand the coverage requirements for ASD, beginning in July 2019. Pursuant to §2-7-73, DOI provided an actuarial report performed by Lewis and Ellis, Inc. analyzing the impact of this bill. The actuarial analysis is attached to this fiscal impact. Because insurance coverage runs on a calendar basis, the actuarial report assumes that new coverage will begin in January 1, 2020. According to the actuarial report the total expenditure increase to qualified health plans (QHP) from January 1, 2020, to December 31, 2020, will be approximately \$1,166,000.

The analysis specifies that due to the inherent variability in the underlying assumptions of the analysis, the increase of \$1,166,000 to QHPs is an estimate. Taking into consideration all of the variability, with a 95 percent statistical confidence, the range of the fiscal impact for one full year is between \$644,000 and \$3,960,000.

Because the cost of ASD treatment varies greatly for children and adults, the actuarial analysis considered the increase in costs for coverage of children under the age of 18 and for adults between the ages of 18 and 64. The analysis determined the estimated number of individuals in each age group within QHPs, the percentage of individuals who utilize ASD services, and the average annual cost of treatment. The table below displays the estimated variables used by the actuarial analysis.

QHP Enrollees under 18	21,900
Percentage Utilizing ASD Services	0.1838%
Average Annual Cost	\$20,000
Total Cost for Enrollees under 18	804,635
QHP Enrollees ages 18 to 64	197,000
Percentage Utilized ASD Services	0.0300%
Average Annual Cost	\$4,000
Total Cost of Enrollees ages 18 to 64	\$236,637
Total Annual Cost of ASD services	\$1,041,271

Additionally, there will be an increase in administrative costs due to the increased coverage. Administrative costs are approximately 12 percent of the new coverage cost, which is approximately \$125,000, resulting in total annual cost increase of \$1,166,000.

As discussed above, the impact of this bill depends upon whether the State is subject to defrayment under the ACA. The issue of defrayment will determine who will pay the increased cost of insurance coverage for ASD. If the State is subject to defrayment, this bill will result in an increase in General Funds expenditures to offset the increase in expenses of the QHPs. Because insurance contracts run on a calendar basis the General Fund expenditure impact will be one half, \$583,000, in FY 2019-20. In FY 2020-21, the General Fund expenditure impact will increase by another \$583,000 for a total recurring impact of \$1,166,000, beginning in FY 2020-21. If the State is not subject to defrayment, Revenue and Fiscal Affairs (RFA) assumes the increase in annual cost of coverage will result in a matching increase in premiums. Therefore, the annual increase in premiums due to the new mandated coverage under this bill will total \$1,166,000. This will result in no expenditure impact to the State.

In addition to the QHPs, there are non-qualifying health plans that may be mandated to cover ASD due to the broadened definition of insurer and health plan and the removal of the age limitations for diagnoses as well as insurance coverage for ASD. The analysis does not consider the fiscal impact to non-qualifying health plans. Non-qualified health plans do not recover increased mandated coverage through defrayment under the ACA. Therefore, any increased expenses for non-qualified health plans will result in an increase in premiums. RFA does not have sufficient data to estimate the potential increase in expenditures for non-qualified health plans. Therefore, the potential increase in expenditures, and the matching increase in premiums, if any, for non-qualifying health plans is unknown, but will have no expenditure impact to the General Fund, Other Funds, or Federal Funds.

**Public Employee Benefit Authority (PEBA).** This bill will expand the coverage required for ASD beginning in July 2019. PEBA indicates there will be no expenditure impact because all age limits and spending caps were removed from the State Health Plan in 2015. Therefore, no expenditure impact is expected for PEBA.

### **State Revenue**

The increase in insurance premium tax revenue totals 1.25 percent of any increase in insurance premiums. Insurance premium taxes are allocated 97.75 percent to the General Fund and 2.25 percent to Other Funds. The full increase in premium taxes for a calendar year, due to an increase in premiums, is collected in March of the year following. Therefore, the full increase in premium taxes will be collected in March 2021, resulting in an increase in General Fund and Other Funds insurance premium taxes beginning in FY 2020-21.

As discussed above, the increase in expenditures for non-qualified health plans are not subject to defrayment and therefore will result in an increase in premiums. This increase in premiums will also increase General Fund and Other Funds insurance premium taxes. However, as the increase in expenditures for non-qualified health plans is unknown, the increase in premiums and General Fund and Other Funds insurance premium taxes is undetermined.

The impact on insurance premium tax revenue for QHPs depends upon the legal conclusion of whether the State has to defray costs of coverage. If the State defrays the cost, then premiums for QHPs will not increase and the insurance premium tax will only increase by 1.25 percent of the increase in premiums for non-qualified health plans.

If the mandated coverage for QHP is not defrayed by the State, the increase in premiums due to the increased expenditures for QHPs will result in an increase in insurance premium tax revenue. As discussed above, the estimated annual increase in premiums is \$1,166,000. Therefore, the total increase in premium insurance tax revenue for QHP's is \$14,575. Insurance premium taxes are allocated 97.75 percent to the General Fund and 2.25 percent to Other Funds and will be collected in March of 2021. Therefore, in addition to any increase in revenues because of non-qualified health plans premiums, this bill may increase General Fund and Other Funds premium tax revenue by \$14,247 and \$328 respectively, beginning in FY 2020-21, dependent upon whether the State defrays the increased cost of coverage for QHPs.

### **Local Expenditure**

N/A

### **Local Revenue**

N/A

### **Introduced on March 7, 2019**

#### **State Expenditure**

This bill adds a uniform definition for autism spectrum disorder (ASD) in the South Carolina Intellectual Disability, Related Disabilities, Head Injuries, and Spinal Cord Injuries Act §44-20-10 et seq. and the Accident and Health Insurance §38-71-10 et seq. Additionally, this amended bill would expand the required insurance coverage by deleting existing age limits. Furthermore,

the bill expands the definition of insurer to include admitted and non-admitted insurers and expands the definition of the health insurance plan to include all health insurance policies and health benefit plans for the purposes of ASD coverage. This bill takes effect upon signing of the Governor.

Current law defines autism or ASD in a slightly different manner under each of these code sections. The modified definition reflects the current medically accepted definition of ASD and does not alter the function of §§44-20-10 et seq. and 38-71-10 et seq. It does not fiscally or operationally impact the Department of Disabilities and Special Needs or the Department of Insurance. Therefore, the updated definition would not have an expenditure impact for these agencies.

This bill also broadens ASD insurance coverage by broadening the definition of insurer and health insurance plan. Further, this bill removes the age limits for diagnoses to be eligible for coverage and the age limit for coverage. Additionally, behavioral therapy is no longer subject to a maximum spending limit.

Current law includes a narrower definition of insurer and health care plan. Additionally, a person must be diagnosed by the age of eight to be eligible to receive coverage and insurers must cover a person until he is eighteen. Also, under current law behavioral therapy is covered only up to \$50,000 plus inflation.

Under the Affordable Care Act (ACA), the State may be required to pay the cost of the additional coverage for qualified health care plans. This determination rests on whether the services required by the bill are considered a new additional benefit or an extension of current benefits. At this time, the answer to these legal questions is unclear. There is no history of a state triggering the reimbursements or precedent for state payments for expanded coverage requirements, and the responsibilities of a state with regard to this component of the ACA have not been established. If State liability is established, then the estimated costs are described below. If litigation is required to resolve this issue, then additional expenses may be incurred.

**Department of Insurance (DOI).** The bill will expand the coverage requirements for ASD beginning in July 2019. DOI is working to provide an actuarial analysis, as required by §2-7-73 for bills mandating health insurance coverage. Therefore, the expenditure impact of this bill is pending, contingent upon a response from DOI.

**Public Employee Benefit Authority (PEBA).** This bill will expand the coverage required for ASD beginning in July 2019. PEBA indicates there will be no expenditure impact because all age limits and spending caps were removed from the State Health Plan in 2015. Therefore, no expenditure impact is expected for PEBA.

### **State Revenue**

The impact on insurance premium tax revenue will depend upon the legal conclusion of whether the newly mandated benefit is considered an essential benefit under the ACA. If the coverage is determined to be a mandated new benefit, and the State defrays the cost, then the premiums will

not increase. Insurance premium tax revenue will not increase if the premiums do not increase and there will be no increase in General Fund revenue or Other Funds revenue.

If the mandated coverage is not defrayed by the state, any increase in premiums for private insurers as a result of this bill would increase insurance premiums. An increase in premiums would increase premium tax. The premium tax is 1.25 percent. Premium taxes are paid quarterly and is allocated as follows: 1 percent to the South Carolina Forestry Commission, 1 percent to the aid to fire district account within the State Treasury, 0.25 percent to the aid to emergency medical services regional councils within the Department of Health and Environmental Control (DHEC), and the remaining 97.75 percent to the General Fund.

DOI is working to provide an actuarial analysis, as required by §2-7-73 for bills mandating health insurance coverage which should include an estimate for the increase in premiums. Therefore, the revenue impact of this bill is pending, contingent upon a response from DOI.

**Local Expenditure**

N/A

**Local Revenue**

N/A



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Actuarial Report on:

COST ESTIMATE OF SOUTH CAROLINA  
BILL H.4214 TO AMEND HEALTH  
INSURANCE COVERAGE FOR  
AUTISM SPECTRUM DISORDER

**SOUTH CAROLINA DEPARTMENT OF INSURANCE**

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### EXECUTIVE SUMMARY

Lewis & Ellis, Inc. (L&E) was retained by the South Carolina Department of Insurance (Department) to provide a fiscal impact statement regarding House Bill 4214 (H.4214) which would amend §38-71-280 and §44-20-30 of the Code of Laws South Carolina, 1976.

The key amendment included in H.4214 would be to expand the mandated coverage of Autism Spectrum Disorder (ASD) treatments to the Individual and Small Group health insurance markets.

Additionally, H.4214 would eliminate the following restrictions currently included in the law:

- Autism diagnosis must occur by age 8;
- Coverage ends at age 16;
- An indexed annual benefit maximum on behavioral health treatment.

L&E's conclusions were reached by developing an independent range of cost estimates and by reviewing similar studies of autism spectrum disorders performed on the behalf of agencies in other states.

### CONCLUSIONS

Based on an independent analysis of South Carolina's State Health Plan (SHP) autism claims experience, L&E developed a best estimate for the cost to the state of South Carolina for including autism as a mandated benefit in the Individual and Small Group QHP markets.

This cost is expected to be approximately \$1.17 million for calendar year 2020. On a per member per month (PMPM) basis, the cost is expected to be \$0.53 PMPM for each person who purchases a Qualified Health Plan (QHP). These costs include both the cost of coverage and the expense to administer the claims.

Due to the inherent variability in the underlying assumptions (e.g. the autism prevalence rate in the State Health Plan being materially different than other state estimates and the number of people in QHP coverage), L&E developed a range of possible outcomes based on a statistical simulation.

With a 95% statistical confidence, L&E estimates that the costs will be between \$0.64 and \$3.96 million for calendar year 2020. On a PMPM basis, the cost is expected to be between \$0.29 and \$1.72 PMPM for each person who purchases a QHP.

After 2020, the State's costs would be expected to increase due to increased enrollment in QHPs and increased per member costs as a result of medical cost trend, which is typically around 6% annually.

## PURPOSE & SCOPE

L&E was retained by the South Carolina Department of Insurance to provide a fiscal impact statement regarding H.4214 which would amend §38-71-280 and §44-20-30. Copies of H.4214, §44-20-30, and §38-71-280 are included in the Appendices of this report.

H.4214 amendments to §38-71-280 include:

- The elimination of the exclusion of mandated coverage of Autism Spectrum Disorder treatments in the Individual and Small Group health insurance markets;
- Autism diagnosis does not have to occur by age 8;
- ASD coverage no longer ends at age 16;
- The elimination of the annual maximum.

H.4214 amendments to §44-20-30 include:

- A definition of Autism Spectrum Disorder.

Section 1311(d)(3) of the Patient Protection and Affordable Care Act of 2010 (ACA) directs states to defray costs if they require QHPs to offer benefits in addition to the ten essential health benefits (EHBs) that the ACA requires for Small Group and Individual policies. Since the South Carolina EHB benchmark plan did not include autism services and since the State declined to define habilitative services to include autism benefits, the State would have to defray autism costs that are subject to H.4214<sup>1</sup>.

Pursuant to §2-7-73 of the S.C. Code of Law, L&E was asked to assess the following regarding the financial impact of H.4214:

- To what extent does the coverage increase or decrease the cost of treatment or services;
- To what extent does the coverage increase or decrease the use of treatment or service;

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<sup>1</sup><https://www.cms.gov/CCIIO/Resources/Data-Resources/Downloads/Updated-South-Carolina-Benchmark-Summary.pdf>

- To what extent does the mandated treatment or service substitute for more expensive treatment or service;
- To what extent does the coverage increase or decrease the administrative expenses of insurance companies and the premium and administrative expenses of policyholders; and
- What is the impact of this coverage on the total cost of health care?

### LIMITATIONS

This report is limited to providing the state of South Carolina (State) financial cost estimates associated with H.4214. This report is not appropriate for any other purpose.

While L&E believes that the projections developed in this report provide a reasonable basis for the expected costs for persons that would now have ASD services provided through their health insurance policy, there is uncertainty surrounding the assumptions and data reviewed and utilized for this report. The actuarial guidance and discussion in this report should not be considered predictions of what will occur. The guidance provided in this report is based on evaluating a specific set of assumptions and should be used to evaluate a range of potential outcomes. Actual experience will deviate from the projections evaluated.

The authors of this report are members of the American Academy of Actuaries and meet the qualification standards for performing this analysis. The guidance and analysis expressed in this report are those of the authors only and do not necessarily represent the opinions of other L&E consultants.

The authors of this report are not attorneys and are not qualified to give legal advice. Users of this report should consult legal counsel for interpreting proposed legislation, state laws, and other issues related to H.4214.

### LIMITS ON DISTRIBUTION

The authors of this report are aware that it may be distributed to third parties; however, any users of this report must possess a certain level of expertise in health insurance, healthcare, or actuarial science so as not to misinterpret the data presented. Any distribution of this report must be made in its entirety. In addition, any third party with access to this report acknowledges, as a condition of receipt, that L&E makes no representations or warranties as to the accuracy or completeness of the material. Any third party with access to these materials cannot bring suit, claim, or action against L&E, under any theory of law, related in any way to this material.

### RELIANCES AND CONFIDENTIALITY

In performing this study, L&E relied on data and information from many sources, including but not limited to the Department, BlueCross BlueShield of South Carolina (BCBS), and the South Carolina State Health Plan (SHP). L&E did not audit the data sources for accuracy, although the data were reviewed for reasonableness. If the data or information provided was inaccurate or incomplete, then any resultant projections or guidance could also be inaccurate or incomplete.

L&E recognizes that in the performance of the work, L&E acquired or had access to records and information considered confidential by the above parties. L&E took steps to comply with confidentiality and privacy issues.

## ASSUMPTIONS

There are four key underlying variables in evaluating the potential fiscal impact of H.4214. These four variables are:

- The cost per each ASD service provided;
- The number of ASD services provided;
- The number of persons that the coverage applies to;
- The State’s costs administrating the ASD mandate.

## COST PER SERVICE

### CHILDREN

In South Carolina, the State Health Plan covers ASD subject to §38-71-280. Since there is very limited South Carolina specific data available other than the SHP data, L&E utilized the SHP claims and membership data as well as industry data to develop an estimated ASD cost based on what L&E believes are reasonable assumptions.

Actual costs will depend on many factors including, but not limited to, the type and level of benefits, the population served, provider availability, and provider cost.

### STATE HEALTH PLAN COST DATA

BlueCross BlueShield of South Carolina is currently the administrator of the State Health Plan for South Carolina employees’ medical benefits. BCBS provided cost and membership data for SHP’s autism spectrum disorder benefits for calendar years 2015 through early 2019.

L&E determined that the current 2019 data was not reliable because the year is not complete.

Year	Aggregated ASD Cost	Covered ASD Children	Cost per Enrolled Child
2015	\$1,965,602	179	\$10,981
2016	\$2,156,959	203	\$10,625
2017	\$2,625,741	199	\$13,195
2018	\$3,560,192	190	\$18,738

## ASSUMPTIONS

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L&E made several adjustments to the above data for the projections consistent with H.4214:

- Claims trend was added to project the child costs to calendar year 2020; and
- The four years of utilization data was averaged.

The cost per enrolled child exhibited a steep increase in 2018. While reasons for the change are not available at the time of this report, L&E concluded that the most recent cost data was a reasonable and appropriate starting point for the projections. The stochastic simulations used to make the projections do use the other years' cost information to estimate the range of future costs.

For the claims trend adjustment to apply to the assumed starting point for the costs, L&E utilized information from the PWC 2019 Medical Cost Trend report. In this report, claims trend is reported/projected as 6.2% in 2016, 5.5% in 2017, and 6.0% in both 2018 and 2019. L&E has assumed a 6.0% annualized trend.

### ADULTS

There is very little publicly available information concerning adult autism costs; however, one study, *The Lifetime Distribution of the Incremental Societal Costs of Autism* by Dr. Michael Ganz<sup>2</sup>, did address adult costs.

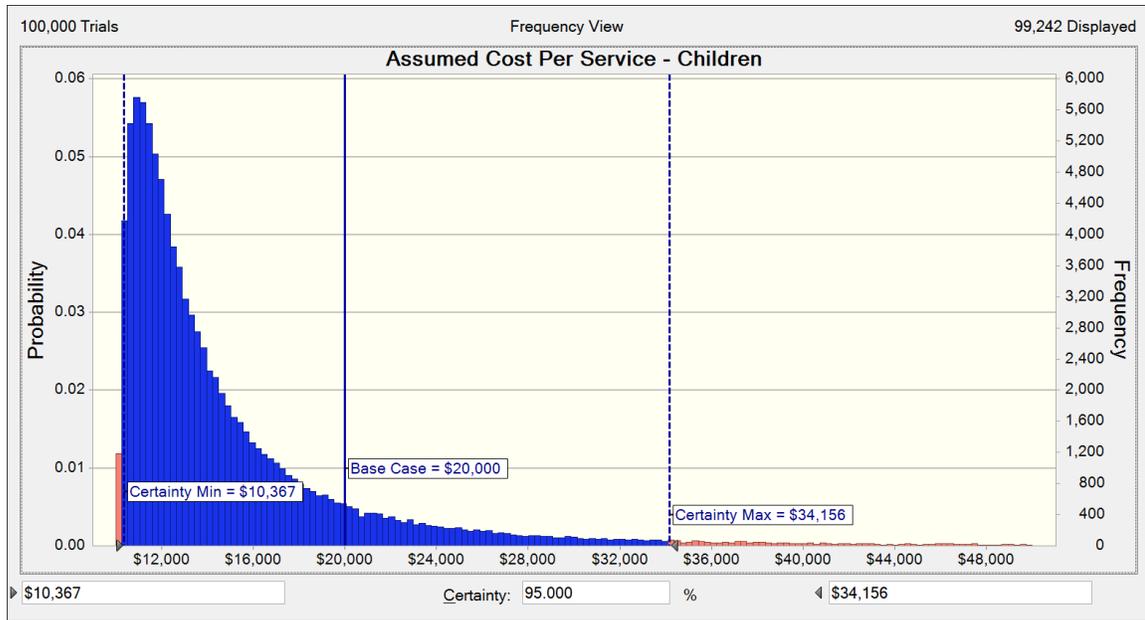
Based on the analysis performed in this study and on the very limited data available from the State Health Plan, L&E assumed that the average cost for adults is 20% of child costs in the base case.

### COST PER SERVICE MODELING ASSUMPTIONS

Based on the adjusted SHP data, L&E assumed a base case of the 2020 ASD child cost to be \$20,00. The following graph illustrates the range of child costs assumed in the modeling.

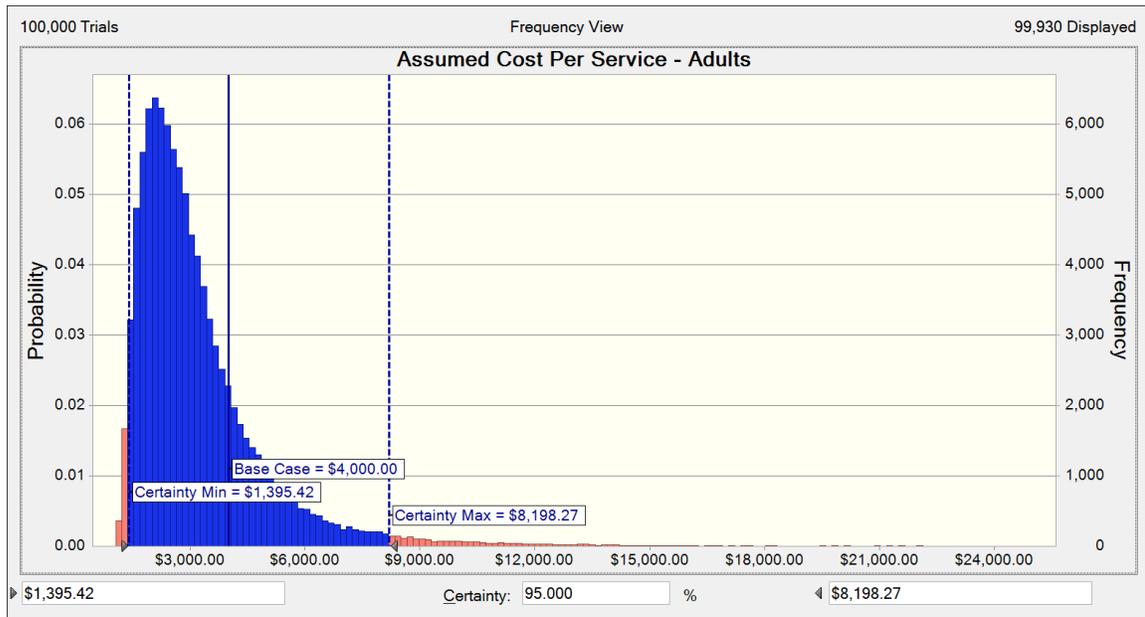
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<sup>2</sup> <http://www.flour.com/sitedocuments/incrementalsocietalcostsautism.pdf>



It should be noted that 95% of the time the cost estimates are approximately between \$10,000 and \$34,000.

For adults, L&E assumed that the base case average cost is 20% of children costs. In projecting a range of possible adult costs, L&E has assumed the cost percentage relative to children could increase as the number of children that age into adult coverage increases.



## ASSUMPTIONS

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Regarding the range of costs, 95% of the values are expected to be between approximately \$1,400 and \$8,200.

### NUMBER OF MEMBERS RECEIVING ASD SERVICES

#### CHILDREN

As with cost data, there is very little South Carolina specific data available other than the SHP dataset. Therefore, L&E utilized the SHP data available as well as industry data collected in L&E's 2015 analysis on autism costs in South Carolina entitled, *Cost Estimate of South Carolina Bill s.135 to Amend Health Insurance Coverage for Autism Spectrum Disorder*<sup>3</sup>.

The actual use of ASD services will depend on many factors including, but not limited to, the type and level of benefits, the population served, and provider availability.

#### STATE HEALTH PLAN COST DATA

The following table summarizes the percent of SHP children that utilized ASD services:

Year	SHP Members Age 0-18	# of Children (Age 0-18) w/ ASD Services	% of Children with ASD Services	Treated Prevalence Rate (Equal to 1 ÷ %)
2015	102,617	179	0.17%	1 in 573
2016	103,990	203	0.20%	1 in 512
2017	105,579	199	0.19%	1 in 531
2018	107,505	190	0.18%	1 in 566

The prevalence rate has been stable and is consistent with the L&E's 2015 report (after adjusting for differences in the ages covered). Because of the stability in the prevalence rate over these four years, the average prevalence rate of 1 in 544 was used as the base case.

#### ADULTS

The SHP data for 2015 through 2018 shows a treated prevalence rate of 1 in 111,720 adults. However, this is reflective of only 15 member-years of treatment and could significantly differ from the QHP population. Therefore, L&E focused on larger datasets, including those that are not South Carolina-specific.

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<sup>3</sup> <http://rfa.sc.gov/files/impact/H3747%20Actuarial%20Report.pdf>

There is very little publicly available information concerning the number of ASD services utilized by adults; however, in 2009 England's National Health Service (NHS) released the first study of autism in the general adult population. The findings estimated that approximately 1 in 100 adults had autism<sup>4</sup>.

To modify this population-based prevalence rate to a diagnosed prevalence rate, L&E made two adjustments. The first adjustment was a dampening factor to consider only adults with a clinically diagnosed ASD classification. L&E applied a dampening factor 79%<sup>5</sup>.

The second adjustment was a utilization adjustment to account for the percentage of adults diagnosed with an ASD who will seek ASD services. A study performed by Ousseny Zerbo et al found that insured adults with ASD in California received physical or occupational therapy at a rate of 3.8%.<sup>6</sup> This data was collected between 2008 and 2012, but California was an early adopter of ASD coverage mandates and L&E believes this treatment rate may well be reasonable for South Carolina in 2020.

After applying these adjustments, L&E assumed a base case adult treated prevalence rate of approximately 1 in 3,330.

### NUMBER OF ASD SERVICES MODELING ASSUMPTIONS

Based on the SHP data, L&E assumed a base case treatment rate of 1 in 544 for children and 1 in 3,330 for adults. Based on L&E's 2015 analysis of autism costs, data from other states suggests that there may be wide variation between states for children.

Additionally, the treatment rate for adults may increase as awareness of ASD increases and youth who received treatment under modern coverage mandates reach adulthood and continue treatment. Therefore, L&E has assumed that the treatment rate for adults may increase significantly above its current level.

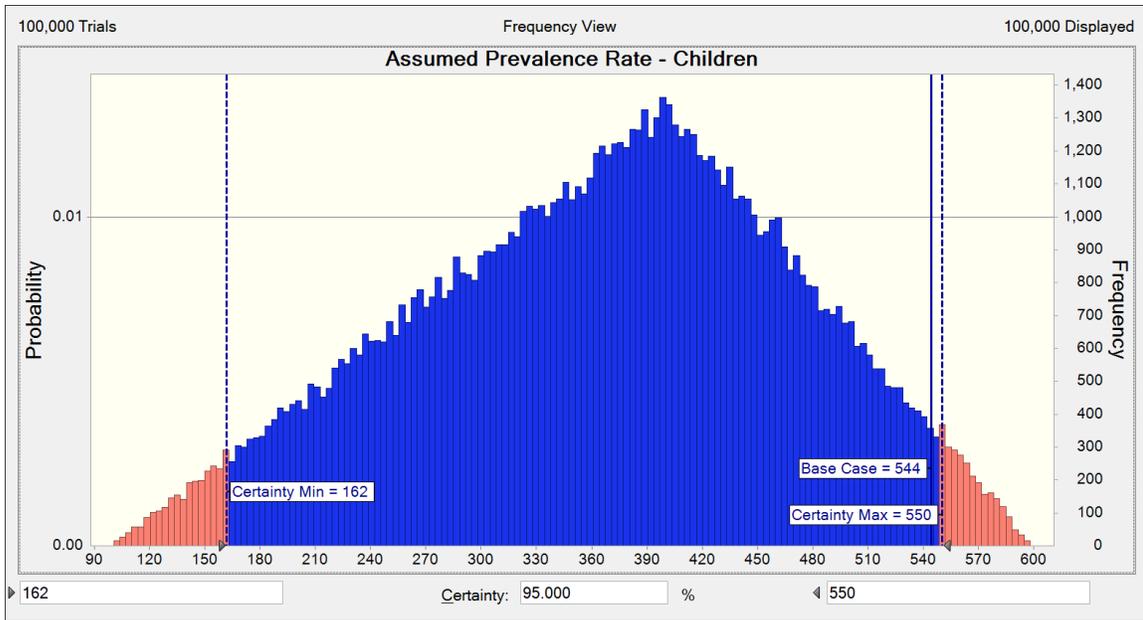
The following graph illustrates the range of autism prevalence for children assumed in the modeling.

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<sup>4</sup> <http://content.time.com/time/health/article/0,8599,1927415,00.html?xid=rss-health>

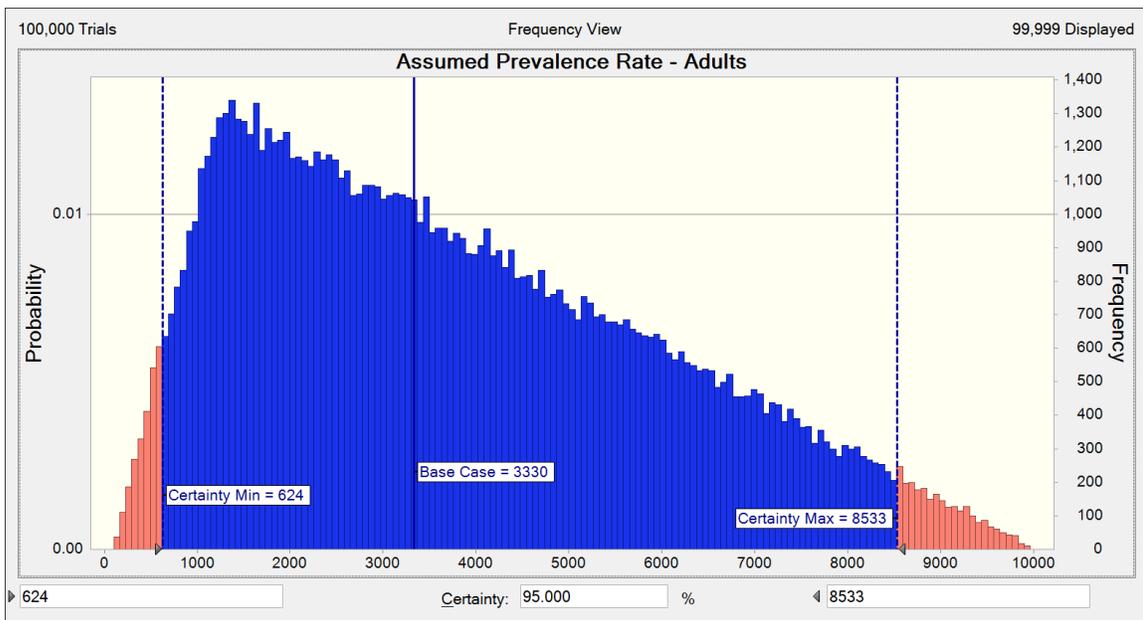
<sup>5</sup> <http://cca.hawaii.gov/ins/files/2015/01/Final-Autism-Actuarial-Analysis-Report.pdf>

<sup>6</sup> <https://www.liebertpub.com/doi/full/10.1089/aut.2018.0004>



Regarding the range of prevalence for children, 95% of the prevalence rates are assumed to be approximately between 1 in 160 and 1 in 550.

For adults, L&E assumed that the base case prevalence rate would be 1 in 3,330. Regarding the range of adult prevalence rates, 95% of the values are expected to be approximately between 1 in 625 and 1 in 8,500.



### COVERED PERSONS

#### TOTAL QHP ENROLLMENT

Per section 1311(d) (3) of the Affordable Care Act, as implemented by 45 CFR 155.170, if a state requires a Qualified Health Plan to cover additional benefits beyond the EHBs, the state must defray the cost. The definition of QHP is established by section 1301(a) of the Affordable Care Act and implemented in 45 CFR 155.20.

L&E assumed that South Carolina would be responsible for ASD costs associated with any insurance coverage certified as QHP, regardless of whether the coverage is sold on the Exchange or off the Exchange.

The Department provided L&E the results of departmental data surveys reflecting current enrollment snapshots as of January 2019. These surveys include issuer reported enrollment information.

For the base case L&E has assumed that the number of total QHP members will be consistent from 2019 to 2020. According to the United States Census Bureau, the population of the South grew by 0.9% in 2018. L&E assumes that the 2019 QHP enrollment will increase by this amount in the base case in 2020. This results in a projected total QHP enrollment of approximately 219,000 members.

#### PERCENTAGE OF CHILDREN AND ADULTS

To estimate the percent of the projected population that were adults versus children, L&E began by reviewing the CMS Health Insurance Exchanges 2019 Open Enrollment Period Final Report.<sup>7</sup> As of this report date, 8.7% of the enrollees in the South Carolina Marketplace were under age 18.

The State Health Plan data indicated that approximately 20% of the covered population is under age 18. This is materially different from the approximate 9% on the Individual Exchanges. L&E assumed that the portion of the projected enrollment that will be children is approximately 10%.

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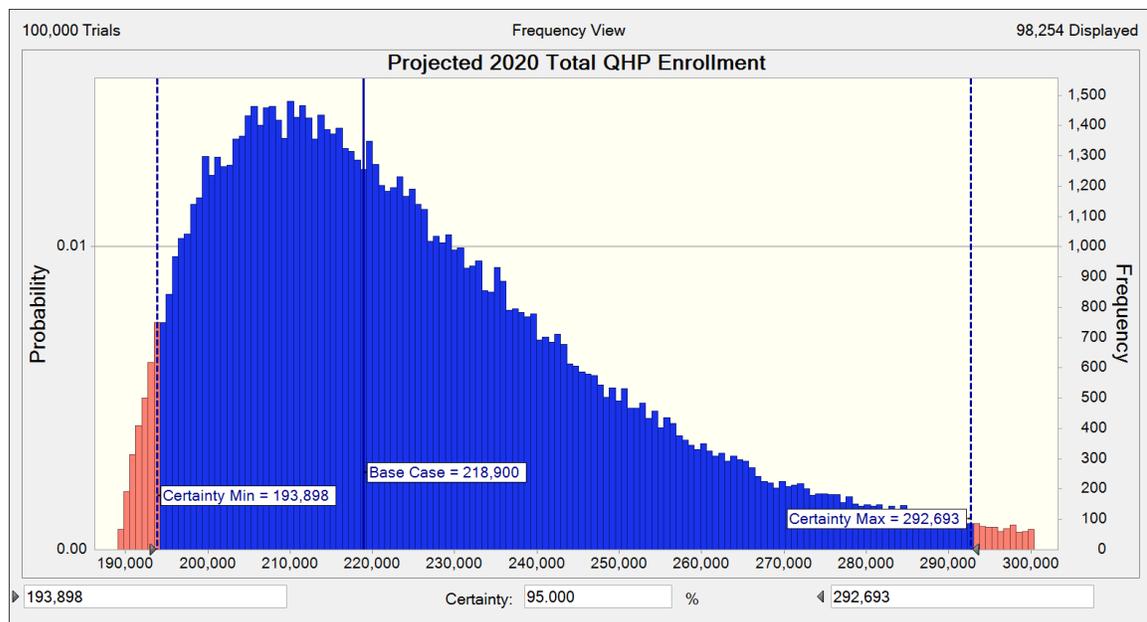
<sup>7</sup> [https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Marketplace-Products/2019\\_Open\\_Enrollment.html](https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Marketplace-Products/2019_Open_Enrollment.html)

Age Group	Projected Total 2020 Membership	Assumed % of Membership
<18	21,900	10%
18-64	197,000	90%
<b>Total</b>	<b>218,900</b>	<b>100%</b>

**COVERED PERSONS MODELING ASSUMPTIONS**

**TOTAL QHP ENROLLMENT**

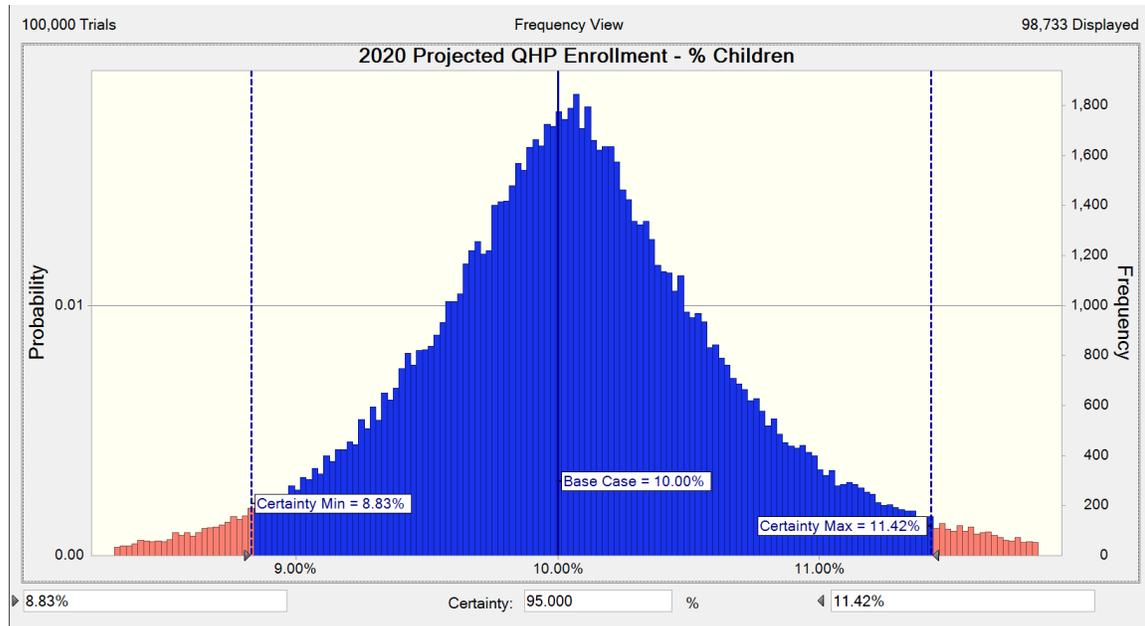
L&E determined that a reasonable range of 2020 membership would be between 10% lower to 10% higher than the base case. Such variation could result from significant changes to premium levels or economic conditions. Additionally, L&E assumed that there could ultimately be QHP enrollment in the Small Group market (in 2019, there was only Individual enrollment).



**PERCENTAGE OF CHILDREN AND ADULTS**

For the base case, L&E assumed that 10% of the QHP enrollees were under age 18 while 90% were aged 18 to 64.

Regarding the range of the children percentage, 95% of the scenarios are expected to be approximately between 9% and 11.5%.



## ADMINISTRATIVE COSTS

Pursuant to 45 CFR 144.170, a state must make payments to defray the cost of additional required benefits that are in excess of EHBs. These payments can be made either:

- To an enrollee; or
- Directly to the QHP issuer on behalf of the enrollee.

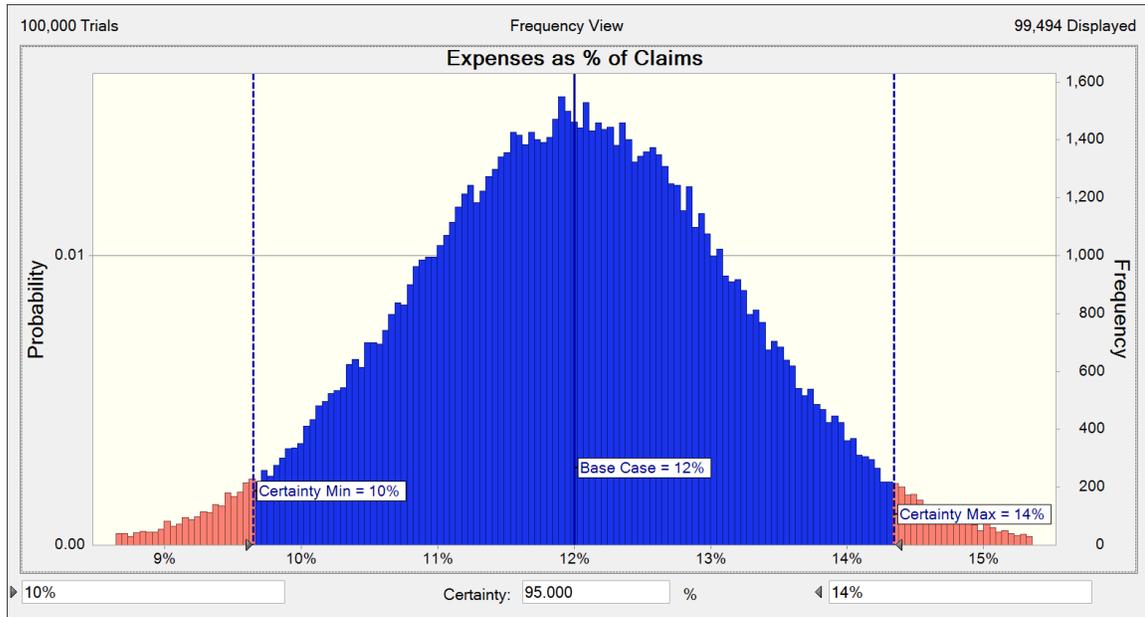
As a result, there will need to be a process established and maintained that allows South Carolina to administer the autism mandate program. To estimate the costs of administering this program, L&E reviewed the administrative costs of the health insurance issuers selling Individual and Small Group coverage.

In the Individual and Small Group markets, medical claim costs typically account for 75 to 85% of premiums. The remaining 15 to 25% of premiums are available for retention items such as administrative costs, taxes, fees, commissions, and profit.

For this analysis, L&E leveraged the research collected in its 2015 report. In the 2015 report, L&E concluded that the average expense ratio for an issuer was 12%. L&E assumes that the average administrative expense load (excluding the retention items not related to administration) for health insurance has not materially changed since the prior analysis. Therefore, L&E assumed that the State's expense load to administer these benefits would be equal to an issuer's expense load. Therefore, L&E assumed that administrative costs would be equal to 12% of claims to administer the autism claims.

# ASSUMPTIONS

For the range of possible outcomes, 95% of the scenarios project the expense assumption to be between 10% and 14%.



## RESULTS

Based on an independent analysis of the State Health Plan autism claims experience and membership information, L&E developed a best estimate for the cost to the state of South Carolina for including autism as a mandated benefit in the Individual and Small Group markets for 2020.

After 2020, the State's costs would be expected to increase due to increased Exchange/QHP enrollment and increased per member costs as a result of medical cost trend, which is typically around 6% annually.

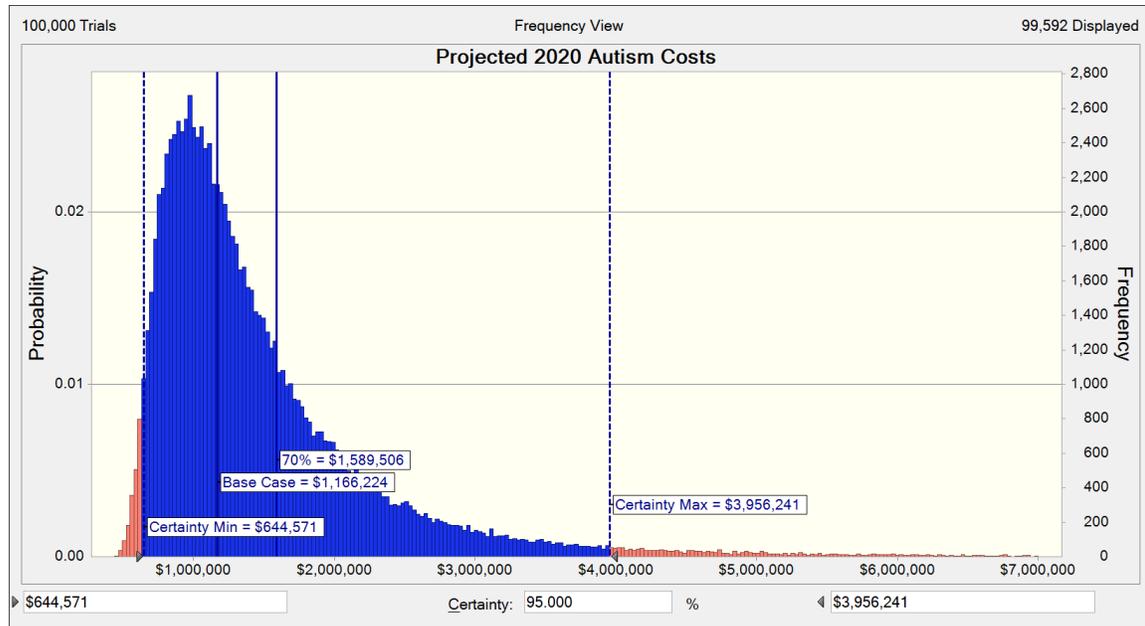
## BASE CASE

	2020
<b>QHP enrollees under age 18</b>	21,900
<b>ASD frequency of services</b>	0.18%
<b>Annual cost for users of ASD services</b>	\$20,000
<b>Cost for enrollees under age 18</b>	\$804,635
<b>QHP Enrollees between ages 18 and 64</b>	197,000
<b>ASD Frequency of Services</b>	0.03%
<b>Annual cost for users of ASD services</b>	\$4,000.00
<b>Cost for enrollees between 18 and 64</b>	\$236,637
<b>Total Projected 2020 Medical Cost</b>	\$1,041,271
<b>Total Projected 2020 Administrative Cost</b>	\$124,953
<b>Total Projected 2020 Cost</b>	\$1,166,224
<b>Projected Cost on PMPM Basis</b>	\$0.53

## RANGE OF RESULTS

In addition to developing a best estimate, L&E developed a range of possible outcomes by creating a stochastic simulation of 100,000 scenarios. Due to the inherent variability in the underlying assumptions (e.g. the autism prevalence rate in the State Health Plan being materially different than other state estimates and possible enrollment in the Small Group market), a range of outcomes will allow South Carolina to view the range of likely results and assess the risks of potentially higher autism mandate costs.

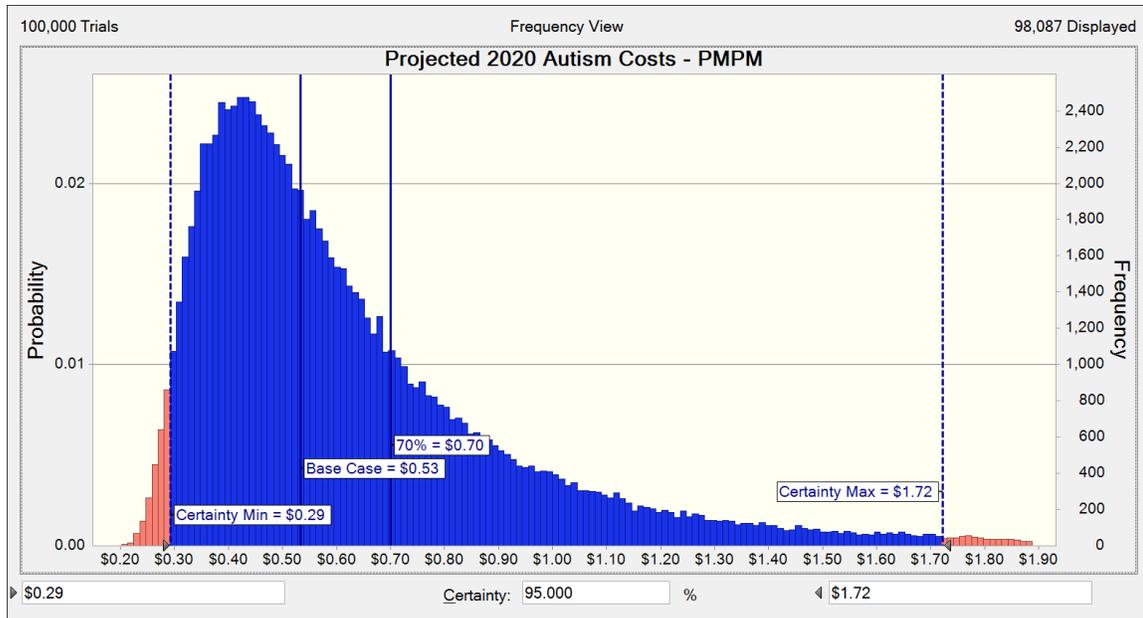
The following graph illustrates the range of possible 2020 aggregate costs based on the inherent variability of the underlying assumptions that was described previously in the report.



A few notes about the projected 2020 autism costs:

- There is a projected 95% likelihood that the autism costs for 2020 will be approximately between \$0.64 million and \$3.96 million;
- The range is skewed towards the lower cost estimates:
  - Approximately 70% of the estimates are lower than \$1.59 million; while
  - The range of costs higher than \$1.59 million only accounts for 30% of the cost estimates.

The following graph illustrates the range of possible 2020 aggregate costs on a PMPM basis.



A few notes about the projected PMPM 2020 autism costs:

- There is a projected 95% likelihood that the PMPM autism costs for 2016 will be between \$0.29 PMPM and \$1.72 PMPM;
- The range is skewed towards the lower PMPM estimates:
  - 70% of the estimates are lower than \$0.70 PMPM; while
  - PMPM estimates above \$0.70 account for only 30% of the PMPM estimates.

## §2-7-73 FISCAL IMPACT ASSESSMENT

Pursuant to §2-7-73 of the South Carolina Code of Law, L&E was asked to assess the following regarding the financial impact of H.4214:

- To what extent does the coverage increase or decrease the cost of treatment or services;
- To what extent does the coverage increase or decrease the use of treatment or service;
- To what extent does the mandated treatment or service substitute for more expensive treatment or service;
- To what extent does the coverage increase or decrease the administrative expenses of insurance companies and the premium and administrative expenses of policyholders; and
- What is the impact of this coverage on the total cost of health care?

For the Fiscal Impact Assessment, L&E leveraged the research collected and the analysis performed in its 2015 report.

### TO WHAT EXTENT DOES THE COVERAGE INCREASE OR DECREASE THE COST OF TREATMENT OR SERVICES

In 2015, L&E concluded that the passage of an autism mandate may ultimately decrease the cost of treatment; however, South Carolina could be impacted differently from the experience in other states due to state-specific factors, such as provider availability and provider cost.

L&E has not been provided any evidence since the prior report which would change the prior conclusion.

### TO WHAT EXTENT DOES THE COVERAGE INCREASE OR DECREASE THE USE OF TREATMENT OR SERVICE

In 2015, L&E concluded that the passage of an autism mandate will increase the use of treatment services.

L&E has not been provided any evidence since the prior report which would change the prior conclusion.

TO WHAT EXTENT DOES THE MANDATED TREATMENT OR SERVICE SUBSTITUTE FOR MORE EXPENSIVE TREATMENT OR SERVICE

In 2015, L&E concluded that there does not appear to be any information available to assess whether the autism mandate would substitute for more expensive treatments.

L&E has not been provided any evidence since the prior report which would change the prior conclusion.

TO WHAT EXTENT DOES THE COVERAGE INCREASE OR DECREASE THE ADMINISTRATIVE EXPENSES OF INSURANCE COMPANIES AND THE PREMIUM AND ADMINISTRATIVE EXPENSES OF POLICYHOLDERS

L&E has included in the cost estimate a projected amount of administrative cost for administering the mandated benefits consistent with the expense ratio on existing QHP products. L&E does not anticipate that any additional material administrative costs will be incurred.

Additionally, since the ACA requires the state to defray the cost of the mandate by reimbursing the policyholder directly or indirectly for the excess cost of the mandate, the impact to each policyholder's premium rates is expected to be negligible or non-existent.

WHAT IS THE IMPACT OF THIS COVERAGE ON THE TOTAL COST OF HEALTH CARE?

As outlined previously in this report, the impact of the autism mandate is expected to cost the state of South Carolina between \$0.64 million and \$3.96 million for calendar year 2020.

APPENDIX A - CODE OF LAWS SECTION 38-71-280

**AUTISM SPECTRUM DISORDER; COVERAGE; ELIGIBILITY FOR BENEFITS.**

(A) As used in this section:

(1) "Autism spectrum disorder" means one of the three following disorders as defined in the most recent edition of the Diagnostic and Statistical Manual of Mental Disorders of the American Psychiatric Association:

- (a) Autistic Disorder;
- (b) Asperger's Syndrome;
- (c) Pervasive Developmental Disorder - Not Otherwise Specified.

(2) "Insurer" means an insurance company, a health maintenance organization, and any other entity providing health insurance coverage, as defined in Section 38-71-670(6), which is licensed to engage in the business of insurance in this State and which is subject to state insurance regulation.

(3) "Health maintenance organization" means an organization as defined in Section 38-33-20(8).

(4) "Health insurance plan" means a group health insurance policy or group health benefit plan offered by an insurer. It includes the State Health Plan, but does not otherwise include any health insurance plan offered in the individual market as defined in Section 38-71-670(11), any health insurance plan that is individually underwritten, or any health insurance plan provided to a small employer, as defined by Section 38-71-1330(17).

(5) "State Health Plan" means the employee and retiree insurance program provided for in Article 5, Chapter 11, Title 1.

(B) A health insurance plan as defined in this section must provide coverage for the treatment of autism spectrum disorder. Coverage provided under this section is limited to treatment that is prescribed by the insured's treating medical doctor in accordance with a treatment plan. With regards to a health insurance plan as defined in this section an insurer may not deny or refuse to issue coverage on, refuse to contract with, or refuse to renew or refuse to reissue or otherwise terminate or restrict coverage on an individual solely because the individual is diagnosed with autism spectrum disorder.

- (C) The coverage required pursuant to subsection (B) must not be subject to dollar limits, deductibles, or coinsurance provisions that are less favorable to an insured than the dollar limits, deductibles, or coinsurance provisions that apply to physical illness generally under the health insurance plan, except as otherwise provided for in subsection (E). However, the coverage required pursuant to subsection (B) may be subject to other general exclusions and limitations of the health insurance plan, including, but not limited to, coordination of benefits, participating provider requirements, restrictions on services provided by family or household members, utilization review of health care services including review of medical necessity, case management, and other managed care provisions.
  
- (D) The treatment plan required pursuant to subsection (B) must include all elements necessary for the health insurance plan to appropriately pay claims. These elements include, but are not limited to, a diagnosis, proposed treatment by type, frequency, and duration of treatment, the anticipated outcomes stated as goals, the frequency by which the treatment plan will be updated, and the treating medical doctor's signature. The health insurance plan may only request an updated treatment plan once every six months from the treating medical doctor to review medical necessity, unless the health insurance plan and the treating medical doctor agree that a more frequent review is necessary due to emerging clinical circumstances.
  
- (E) To be eligible for benefits and coverage under this section, an individual must be diagnosed with autistic spectrum disorder at age eight or younger. The benefits and coverage provided pursuant to this section must be provided to any eligible person under sixteen years of age. Coverage for behavioral therapy is subject to a fifty thousand dollar maximum benefit per year. Beginning one year after the effective date of this act, this maximum benefit shall be adjusted annually on January first of each calendar year to reflect any change from the previous year in the current Consumer Price Index, All Urban Consumers, as published by the United States Department of Labor's Bureau of Labor Statistics.

HISTORY: 2007 Act No. 65, Section 1, eff July 1, 2008, applicable to health insurance plans issued, renewed, delivered, or entered into on or after that date.

APPENDIX B - HOUSE BILL 4214

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9

**A BILL**

10

11 TO AMEND THE CODE OF LAWS OF SOUTH CAROLINA,  
12 1976, SO AS TO ENACT THE “MEDICAL CARE FOR  
13 CHILDREN WITH AUTISM ACT”; TO AMEND SECTION  
14 44-20-30, RELATING TO TERMS DEFINED IN THE “SOUTH  
15 CAROLINA INTELLECTUAL DISABILITY, RELATED  
16 DISABILITIES, HEAD INJURIES, AND SPINAL CORD  
17 INJURIES ACT”, SO AS TO DEFINE “AUTISM SPECTRUM  
18 DISORDER”; AND TO AMEND SECTION 38-71-280,  
19 RELATING TO HEALTH INSURANCE COVERAGE FOR  
20 AUTISM SPECTRUM DISORDER, SO AS TO MAKE  
21 CONFORMING CHANGES AND REMOVE THE AGE  
22 REQUIREMENT.

23

24 Be it enacted by the General Assembly of the State of South  
25 Carolina:

26

27 SECTION 1. This act must be known and may be cited as the  
28 “Medical Care for Children with Autism Act”.

29

30 SECTION 2. Section 44-20-30 of the 1976 Code is amended by  
31 adding an appropriately numbered item to read:

32

33 “( ) ‘Autism spectrum disorder’ means a pervasive  
34 developmental disorder as defined by the most recent publication of  
35 the Diagnostic and Statistical Manual of Mental Disorders (DSM)  
36 or as defined in any previous edition of the DSM.”

37

38 §SECTION 3. Section 38-71-280 of the 1976 Code is amended to  
39 read:

40

41 “Section 38-71-280. (A) As used in this section:

1 (1) 'Autism spectrum disorder' means ~~one of the three~~  
2 ~~following disorders as defined in the most recent edition of the~~  
3 ~~Diagnostic and Statistical Manual of Mental Disorders of the~~  
4 ~~American Psychiatric Association:~~

5 (a) ~~Autistic Disorder;~~

6 (b) ~~Asperger's Syndrome;~~

7 (c) ~~Pervasive Developmental Disorder - Not Otherwise~~  
8 ~~Specified~~ a pervasive developmental disorder as defined by the most  
9 recent publication of the Diagnostic and Statistical Manual of  
10 Mental Disorders (DSM) or as defined in any previous edition of the  
11 DSM.

12 (2) 'Insurer' means an insurance company, a health  
13 maintenance organization, and any other entity providing health  
14 insurance coverage, as defined in Section 38-71-670(6), ~~which is~~  
15 ~~licensed to engage in the business of insurance in this State and~~  
16 ~~which is subject to state insurance regulation.~~

17 (3) 'Health maintenance organization' means an organization  
18 as defined in Section 38-33-20(8).

19 (4) 'Health insurance plan' means a ~~group~~ health insurance  
20 policy or ~~group~~ health benefit plan offered by an insurer. It includes  
21 the State Health Plan, ~~but does not otherwise include any health~~  
22 ~~insurance plan offered in the individual market as defined in Section~~  
23 ~~38-71-670(11), any health insurance plan that is individually~~  
24 ~~underwritten, or any health insurance plan provided to a small~~  
25 ~~employer, as defined by Section 38-71-1330(17).~~

26 (5) 'State Health Plan' means the employee and retiree  
27 insurance program provided for in Article 5, Chapter 11, Title 1.

28 (B) A health insurance plan as defined in this section must  
29 provide coverage for the treatment of autism spectrum disorder.  
30 Coverage provided under this section is limited to treatment that is  
31 prescribed by the insured's treating medical doctor in accordance  
32 with a treatment plan. With regards to a health insurance plan as  
33 defined in this section an insurer may not deny or refuse to issue  
34 coverage on, refuse to contract with, or refuse to renew or refuse to  
35 reissue or otherwise terminate or restrict coverage on an individual  
36 solely because the individual is diagnosed with autism spectrum  
37 disorder.

38 (C) The coverage required pursuant to subsection (B) must not  
39 be subject to dollar limits, deductibles, or coinsurance provisions  
40 that are less favorable to an insured than the dollar limits,  
41 deductibles, or coinsurance provisions that apply to physical illness  
42 generally under the health insurance plan, ~~except as otherwise~~  
43 ~~provided for in subsection (E).~~ However, the coverage required

[4214]

2

1 pursuant to subsection (B) may be subject to other general  
2 exclusions and limitations of the health insurance plan, including,  
3 but not limited to, coordination of benefits, participating provider  
4 requirements, restrictions on services provided by family or  
5 household members, utilization review of health care services  
6 including review of medical necessity, case management, and other  
7 managed care provisions.

8 (D) The treatment plan required pursuant to subsection (B) must  
9 include all elements necessary for the health insurance plan to  
10 appropriately pay claims. These elements include, but are not  
11 limited to, a diagnosis, proposed treatment by type, frequency, and  
12 duration of treatment, the anticipated outcomes stated as goals, the  
13 frequency by which the treatment plan will be updated, and the  
14 treating medical doctor's signature. The health insurance plan may  
15 only request an updated treatment plan once every six months from  
16 the treating medical doctor to review medical necessity, unless the  
17 health insurance plan and the treating medical doctor agree that a  
18 more frequent review is necessary due to emerging clinical  
19 circumstances.

20 ~~(E) To be eligible for benefits and coverage under this section,~~  
21 ~~an individual must be diagnosed with autistic spectrum disorder at~~  
22 ~~age eight or younger. The benefits and coverage provided pursuant~~  
23 ~~to this section must be provided to any eligible person under sixteen~~  
24 ~~years of age. Coverage for behavioral therapy is subject to a fifty~~  
25 ~~thousand dollar maximum benefit per year. Beginning one year after~~  
26 ~~the effective date of this act, this maximum benefit shall be adjusted~~  
27 ~~annually on January first of each calendar year to reflect any change~~  
28 ~~from the previous year in the current Consumer Price Index, All~~  
29 ~~Urban Consumers, as published by the United States Department of~~  
30 ~~Labor's Bureau of Labor Statistics."~~

31  
32 SECTION 4. This act takes effect upon approval by the Governor.

33 ----XX----

34

## APPENDIX C - ASOP 41 DISCLOSURES

The Actuarial Standards Board (ASB), vested by the U.S.-based actuarial organizations<sup>8</sup>, promulgates actuarial standards of practice (ASOPs) for use by actuaries when providing professional services in the United States.

Each of these organizations requires its members, through its Code of Professional Conduct<sup>9</sup>, to observe the ASOPs of the ASB when practicing in the United States. ASOP 41 provides guidance to actuaries with respect to actuarial communications and requires certain disclosures which are contained in the following.

### IDENTIFICATION OF THE RESPONSIBLE ACTUARY

The responsible actuaries are:

- David M. Dillon, FSA, MAAA, MS, Senior Vice President & Principal
- Kevin Ruggeberg, ASA, MAAA, Associate Actuary

These actuaries are available to provide supplementary information and explanation.

### IDENTIFICATION OF ACTUARIAL DOCUMENTS

The date of this document is April 4, 2019. The date (a.k.a. "latest information date") through which data or other information has been considered in performing this analysis is March 28, 2019.

### DISCLOSURES IN ACTUARIAL REPORTS

- The purpose of this report is to assist the South Carolina Department of Insurance in assessing the fiscal impact of H.4214.
- The authors of this report are aware that it will be distributed to third parties. Any third party with access to this report acknowledges, as a condition of receipt, that they cannot bring suit, claim, or action against L&E, under any theory of law, related in any way to this material.

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<sup>8</sup> The American Academy of Actuaries (Academy), the American Society of Pension Professionals and Actuaries, the Casualty Actuarial Society, the Conference of Consulting Actuaries, and the Society of Actuaries.

<sup>9</sup> These organizations adopted identical Codes of Professional Conduct effective January 1, 2001.

- L&E is financially and organizationally independent from the health insurance issuers who may be impacted by H.4214. There is nothing that would impair or seem to impair the objectivity of the work.
- The responsible actuaries identified above are qualified as specified in the Qualification Standards of the American Academy of Actuaries.
- L&E has reviewed the data provided for reasonableness, but it was not audited. Neither L&E nor the responsible actuaries assume responsibility for these items that may have a material impact on the analysis. To the extent that there are material inaccuracies in, misrepresentations in, or lack of adequate disclosure by the data, the results may be accordingly affected.
- L&E is not aware of any subsequent events that may have a material effect on the findings.
- There are no other documents or files that accompany this report.
- The findings of this report are enclosed.

### ACTUARIAL FINDINGS

The actuarial findings of the report can be found in the body of this report.

### METHODS, PROCEDURES, ASSUMPTIONS, AND DATA

The methods, procedures, assumptions and data used by the actuaries can be found in the body of this report.

### ASSUMPTIONS OR METHODS PRESCRIBED BY LAW

This report was prepared as prescribed by applicable law, statutes, regulations and other legally binding authority.

### RESPONSIBILITY FOR ASSUMPTIONS AND METHODS

The actuaries do not disclaim responsibility for material assumptions or methods.

### DEVIATION FROM THE GUIDANCE OF AN ASOP

The actuaries have not deviated materially from the guidance set forth in an applicable ASOP.