

# **Fiscal Impact Report – BR82/SB93 GA** *Coverage for Hearing Aids for Children and Cochlear Implants*

PREPARED FOR THE KENTUCKY DEPARTMENT OF INSURANCE

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## Introduction

Lewis & Ellis, LLC (L&E) was engaged by the Kentucky Department of Insurance (KY DOI) to perform a fiscal impact analysis of BR82/SB93 GA, which would mandate that health benefit plans provide coverage, with no cost-sharing to the insured member for:

- Hearing aids for children regardless of degree of hearing loss subject to a minimum coverage amount of no less than \$2,500 as determined by the commissioner; and
- Cochlear implants.

Kentucky Revised Statute (KRS) 6.948<sup>a</sup> mandates that the sponsor of any bill proposing a health benefit mandate must request a financial impact statement from the Kentucky Department of Insurance (DOI). This statement must be completed within 30 days of the request and should include the following:

1. An assessment of the impact of the mandated health benefit on administrative expenses, premiums, and the overall cost of healthcare including any potential future cost savings.
2. Supporting documentation, including studies, written opinions, calculations, and citations that validate the findings and conclusions.
3. An estimate of any potential cost savings in the future, along with an explanation of why the bill would or would not lead to such savings, and
4. A certification confirming the accuracy of the information provided.

Additionally, KRS 6.948 mandates that the sponsor of any bill proposing a health benefit mandate must also request a federal cost defrayal impact statement from the Kentucky DOI. This statement must be completed within 30 days of the request. The federal defrayal cost impact statement shall:

1. Indicate whether a bill or amendment that contains a mandated health benefit may result in the state being required to make payments to defray costs.
2. If applicable, indicate which provision(s) of the bill or amendment may trigger the requirement to make payments to defray the costs.
3. If applicable, include an estimate of the payment amount that the state may be required to make if the bill or amendment is enacted into law.

L&E is tasked with performing the health mandate fiscal impact and federal cost defrayal impact analyses for the Kentucky insurance market, excluding the Kentucky Employee Health Plan (KEHP) and the Kentucky Medicaid programs. The fiscal impact analyses for these programs are performed by other entities. For this analysis, L&E reviewed literature, gathered statistics from public sources<sup>b</sup>, and used data from the KY DOI's 2023 Insurer Annual Data report.

## Administrative Expense Impact Analysis

The proposed bill is estimated to have **an immaterial (within +/- 0.05%) impact on administrative expenses** as a percentage of premium, based upon our analysis of the proposed mandate and our experience with similar health insurance benefits. It is our assumption that

<sup>a</sup> As amended by 2024 House Bill 635.

<sup>b</sup>Including reports for other states who have considered or passed similar legislation.

insurers either already provide coverage for the mandated benefits or the additional administrative requirements imposed by this mandate would not significantly impact the administrative costs relative to current levels.

## Premium Impact Analysis

To estimate BR82/SB93 GA’s premium impact, L&E evaluated data from KY DOI’s 2023 Insurer Annual Data report and publicly available sources. L&E used the collected information and data to estimate low-end and high-end assumptions for each variable that could impact cost or utilization. The ranges for each variable were then used to estimate the aggregate premium impact range.

While L&E selected specific assumptions to develop a range for the estimated premium impact, it is not intended to represent only the low- and high- scenarios illustrated. Each assumption range is intended to capture the various uncertainties inherent in each assumption and to provide an estimated range of resulting potential outcomes. Therefore, the final estimated aggregate premium impact range implicitly captures a wide range of scenarios and assumptions.

Each of the following sections discuss the data used to inform each assumption evaluated by L&E.

### HEARING AID AND COCHLEAR IMPLANT UTILIZATION PRE-MANDATE

Utilization data was reviewed from several publicly available sources.<sup>1 2 3 4</sup> Based on this data, L&E selected the following range for the hearing aid and cochlear implants utilization percentages pre-mandate:

Hearing Aid and Cochlear Implant Utilization Pre-Mandate		
	Low	High
<b>Children – Hearing Aids</b>	0.50%	3.00%
<b>Children – Cochlear Implants</b>	0.006%	0.013%
<b>Adults – Cochlear Implants</b>	0.003%	0.007%

L&E notes that the hearing aid utilization assumptions are based on a combination of assumed prevalence of hearing loss to be covered and an assumed percentage of that will elect to utilize hearing aids, both selected based on information from the cited sources.

### COVERAGE CHANGE INDUCED UTILIZATION

There is little data available regarding induced utilization<sup>c</sup> resulting from eliminating cost sharing for hearing aids and cochlear implants. However, L&E believes it is reasonable to assume that there is potential for increased utilization because the insured’s financial responsibility would

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<sup>c</sup> An increase in demand for and utilization of health care services caused by a decrease in the level of cost-sharing that insured’s are required to pay under their insurance coverage.

decrease if cost sharing were eliminated. Based on L&E’s similar experience with cost-sharing eliminations, the following induced utilization assumption range was selected:

<b>Assumed Induced Utilization</b>	
<b>Low</b>	<b>High</b>
0.0%	3.0%

**HEARING AID AND COCHLEAR IMPLANT UNIT COST**

Based on the information available from publicly available research<sup>5 6</sup>, L&E selected the following assumptions for the average cost for hearing aids and cochlear implants.

<b>Hearing Aid/Cochlear Implant Unit Cost</b>		
	<b>Low</b>	<b>High</b>
<b>Hearing Aids Unit Cost</b>	\$2,500	\$3,500
<b>Cochlear Implant Unit Cost</b>	\$30,000	\$60,000

**HEARING AID AVERAGE LIFESPAN**

Based on the information available from publicly available research<sup>7 5</sup>, L&E selected the following assumptions for the average lifespan for hearing aids.

<b>Hearing Aid Average Lifespan</b>		
	<b>Low</b>	<b>High</b>
<b>Hearing Aids Lifespan</b>	8 years	4 years

L&E notes that a longer lifespan results in a lower premium impact. Therefore, the longer lifespan is listed for the low end. Further, a lifespan assumption for cochlear implants is not needed because assumed procedure utilization is already on a per-year basis.

**HEARING AID AND COCHLEAR IMPLANT AVERAGE NUMBER OF DEVICES PER INSURED**

Based on L&E experience and information available from publicly available research<sup>8</sup>, approximately 60 to 65 percent of those experiencing hearing loss have hearing loss in both ears. Based on this information, the assumed average number of devices per insured for hearing aids and cochlear implants to be 1.6 devices.

**INSURER COST-SHARING PRE- AND POST-MANDATE**

Based on the KY DOI’s Annual data report, L&E selected the following assumptions for the Insurer Cost-Sharing Pre- and Post-Mandate:

Assumed Insurer Cost-Sharing		
	Low	High
<b>Hearing Aid/Cochlear Implant Insurer Cost-Share Pre-Mandate</b>	70%	50%
<b>Hearing Aid/Cochlear Implant Insurer Cost-Share Post-Mandate</b>	100%	100%

L&E notes that a higher level of pre-mandate insurer cost-share results in a lower premium impact. Therefore, the higher pre-mandate cost-share percentage is listed for the low end.

**RESULTING PREMIUM IMPACT ESTIMATE**

The following tables illustrate the range of assumptions selected by L&E and the resulting estimated premium impact range. The first three tables below show three calculations for each of the three components of the mandate with a pricing impact: Children Hearing Aids, Children Cochlear Implants, and Adult Cochlear Implants. The final table aggregates these components to show the final premium impact estimate for the mandate.

Children - Hearing Aid: Claim Cost Impact Calculation		
Assumption	Low	High
<b>Children – Hearing Aid Utilization Pre- Mandate (a)</b>	0.50%	3.00%
<b>Mandate Induced Utilization (b)</b>	0.0%	3.0%
<b>Children – Hearing Aid Utilization % Post- Mandate (c)=(a)*(1+b)</b>	0.50%	3.09%
<b>Unit Cost per Hearing Aid (d)</b>	\$2,500	\$3,500
<b>Hearing Aids Lifespan (e)</b>	8	4
<b>Average # of Devices per Insured (f)</b>	1.6	1.6
<b>Hearing Aid Insurer Cost-Share Pre- Mandate (g)</b>	70%	50%
<b>Hearing Aid Insurer Cost-Share Post- Mandate (h)</b>	100%	100%
<b>Children – Hearing Aid Claim Cost Impact PMPY (i)=[(c*d*f*h)/e]-[(a*d*f*g)/e]</b>	\$0.76	\$22.61
<b>Children – Hearing Aid Claim Cost Impact PMPM (j)=(i)/12</b>	\$0.06	\$1.88

<b>Children – Cochlear Implants: Claim Cost Impact Calculation</b>		
<b>Assumption</b>	<b>Low</b>	<b>High</b>
<b>Children – Cochlear Implants Utilization Pre- Mandate (a)</b>	0.006%	0.013%
<b>Mandate Induced Utilization (b)</b>	0.0%	3.0%
<b>Children – Cochlear Implants Utilization % Post- Mandate (c)=(a)*(1+b)</b>	0.006%	0.014%
<b>Unit Cost per Cochlear Implant (d)</b>	\$30,000	\$60,000
<b>Average # of Devices per Insured (e)</b>	1.6	1.6
<b>Cochlear Implant Insurer Cost-Share Pre- Mandate (f)</b>	70%	50%
<b>Cochlear Implant Insurer Cost-Share Post- Mandate (g)</b>	100%	100%
<b>Children – Cochlear Implant Claim Cost Impact PMPY (h)=(c*d*e*g)-(a*d*e*f)</b>	\$0.88	\$6.93
<b>Children – Cochlear Implant Claim Cost Impact PMPM (i)=(h)/12</b>	\$0.07	\$0.58

<b>Adult – Cochlear Implants: Claim Cost Impact Calculation</b>		
<b>Assumption</b>	<b>Low</b>	<b>High</b>
<b>Adult – Cochlear Implants Utilization Pre- Mandate (a)</b>	0.003%	0.007%
<b>Mandate Induced Utilization (b)</b>	0.0%	3.0%
<b>Adult – Cochlear Implants Utilization % Post- Mandate (c)=(a)*(1+b)</b>	0.003%	0.007%
<b>Unit Cost per Cochlear Implant (d)</b>	\$30,000	\$60,000
<b>Cochlear Implant Lifespan (e)</b>	30	10
<b>Cochlear Implant Insurer Cost-Share Pre- Mandate (f)</b>	70%	50%
<b>Cochlear Implant Insurer Cost-Share Post- Mandate (g)</b>	100%	100%
<b>Adult – Cochlear Implant Claim Cost Impact PMPY (h)=(c*d*e*g)-(a*d*e*f)</b>	\$0.44	\$3.50
<b>Adult – Cochlear Implant Claim Cost Impact PMPM (i)=(h)/12</b>	\$0.04	\$0.29

The three calculations above were weighted based on the child and adult populations to arrive at the total claim cost impact of the mandate shown below:

Premium Impact Calculation		
Assumption	Low	High
Mandate Claim Cost Impact PMPM (l)	\$0.06	\$0.77
Projected 2025 Total Claims Costs PMPM (m)	\$636.55	\$636.55
Projected 2025 KY Average Loss Ratio (n) <sup>d</sup>	89.5%	89.5%
Projected 2025 KY Average Premium PMPM (o)=(m)/(n)	\$711.60	\$711.60
Mandate Premium Impact PMPM (p)=(l)/(n)	<b>\$0.07</b>	<b>\$0.86</b>
Mandate Premium % Impact (q)=(p)/(o)	<b>0.0%</b>	<b>0.1%</b>
Projected 2025 KY Insured Members <sup>e</sup> (r)	351,797	351,797
Mandate Premium Total Annual Impact (s) = (p)*(r)*12	<b>\$277K</b>	<b>\$3.6M</b>

## Total Cost of Health Care Impact Analysis

L&E defines ‘Total Cost of Health Care’ as being equal to the sum of the Allowed Cost (i.e., the amount paid by the insurer plus the amount paid by the insured) and the insurer Non-Benefit Expenses. Additionally, as required by KRS 6.948, L&E considered the impact of potential future cost savings.

### POTENTIAL FOR FUTURE COST SAVINGS

L&E recognizes the potential for long-term savings through enhanced affordability and accessibility of hearing loss treatment. There is published research<sup>9</sup> showing that untreated hearing loss is associated with other costly comorbidities, including higher risk of emergency department visits, higher rate of hospitalization, and longer stay when hospitalized. However, available research does not define the magnitude of potential cost savings, particularly regarding the relationship between cost savings and incremental coverage increases. Based on experience and actuarial judgment, L&E estimates the impact of potential future savings as a result of the BR82/SB93 GA to be immaterial (within +/- 0.05%).

### RESULTING TOTAL COST OF HEALTH CARE IMPACT ESTIMATE

The proposed bill is estimated to have **an immaterial (within +/- 0.05%) impact on total cost of health care**, including potential future cost savings, based upon our analysis of the proposed mandate and our experience with similar health insurance benefits. This estimate differs from the premium estimate above because shifting cost sharing from the insured to the insurer does not impact the total cost of care. In this case, the only impact to the total cost of care is the induced utilization, which has an immaterial impact.

<sup>d</sup> Based on 2023 Insurer Annual Data report provided by the KY DOI. Excludes KEHP and Medicaid.

<sup>e</sup> Excluding the Kentucky Employee Health Plan (KEHP) and the Kentucky Medicaid programs.



## Cost Defrayal Impact Analysis

Based on L&E’s research and actuarial judgment, L&E determined that this bill does not contain a mandated health benefit that would result in the state being required to make payments to defray costs under 42 U.S.C sec 18031(d)(3) and 45 C.F.R. sec 155.170, as amended. This is based on the understanding that cost sharing mandates do not trigger defrayal and that hearing aids and cochlear implants are already covered under the state’s benchmark plan as an essential health benefit.

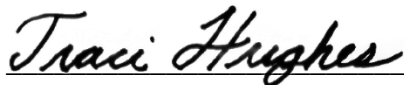
L&E has disclosed its defrayal determination based on its earnest interpretation of federal guidance available as of the date of this report. However, determination of defrayal is ultimately under the regulatory purview of Centers for Medicare and Medicaid Services (CMS).

## Certification of Accuracy

L&E believes the estimates are accurate based on the information disclosed in the report. To the extent that there are material inaccuracies, misrepresentations, or lack of adequate disclosure in the data, the results may be accordingly affected. Several of the assumptions made in this analysis are subject to uncertainty and it is expected that actual results could differ from the calculated estimates.



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3/10/2025

(Signature of Commissioner/Date)

## ASOP 41 Disclosures

The Actuarial Standards Board (ASB), vested by the U.S.-based actuarial organizations<sup>f</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>g</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:

- Bobby Dorman, ASA, MAAA, Vice President & Consulting Actuary
- Traci Hughes, FSA, MAAA, Vice President & Principal

These actuaries are available to provide supplementary information and explanation.

### Identification of Actuarial Documents

The date of this document is March 7, 2025. The date (a.k.a. “latest information date”) through which data or other information has been considered in performing this analysis is March 7, 2025.

### Disclosures in Actuarial Reports

- The contents of this report are intended for the use of the Kentucky Department of Insurance. The authors of this report are aware that it may 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.
- Lewis & Ellis, LLC is financially and organizationally independent from the health insurers and providers involved in this analysis. There is nothing that would impair or seem to impair the objectivity of the work.
- The purpose of this report is to assist the Kentucky Department of Insurance in assessing the financial impact and federal cost defrayal impact of proposed legislation that includes a proposed health benefit mandate.
- 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 by the insurers and Kentucky Department of Insurance for reasonableness, but the data has not been audited. 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.

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

- Several of the assumptions made in this analysis are subject to uncertainty and it is not unexpected that actual results could differ from the calculated estimates.
- 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.

**Actuarial Findings**

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

## Bibliography

- <sup>1</sup> Ehrenfeld, T. (2022, February 15). *Hearing aids for profound hearing loss*. Healthy Hearing. Retrieved February 10, 2025, from <https://www.healthyhearing.com/report/52948-Hearing-aids-for-profound-hearing-loss>.
- <sup>2</sup> American Speech-Language-Hearing Association. (n.d.). *Hearing aids for children*. ASHA Practice Portal. Retrieved February 10, 2025, from <https://www.asha.org/practice-portal/professional-issues/hearing-aids-for-children/>.
- <sup>3</sup> National Institute on Deafness and Other Communication Disorders. (n.d.). *Quick statistics about hearing, balance, & dizziness*. National Institutes of Health. Retrieved February 10, 2025, from <https://www.nidcd.nih.gov/health/statistics/quick-statistics-hearing>.
- <sup>4</sup> Nassiri, A. M., Marinelli, J. P., Lohse, C. M., & Carlson, M. L. (2023). *Incidence of cochlear implantation among adult candidates in the United States*. *Otology & Neurotology*, 44(6), 549–554. <https://doi.org/10.1097/MAO.0000000000003894>.
- <sup>5</sup> HearingLife. (n.d.). *Hearing aid prices in 2025 [comparison table]*. HearingLife. Retrieved February 10, 2025, from <https://www.hearinglife.com/hearing-aids/prices>.
- <sup>6</sup> Paretts, S. (2024, March 29). *How much do cochlear implants cost? Procedure and coverage breakdown*. CareCredit. Retrieved February 10, 2025, from <https://www.carecredit.com/well-u/health-wellness/understanding-cochlear-implants/>.
- <sup>7</sup> My Hearing Centers. (n.d.). *How long do hearing aids last?* My Hearing Centers. Retrieved February 10, 2025, from <https://myhearingcenters.com/how-long-do-hearing-aids-last/>.
- <sup>8</sup> Lin, F. R., Niparko, J. K., & Ferrucci, L. (2011). Hearing loss prevalence in the United States. *Archives of Internal Medicine*, 171(20), 1851–1852. <https://doi.org/10.1001/archinternmed.2011.506>.
- <sup>9</sup> “Infographic - Hearing Loss and Healthcare Utilization.” *Johns Hopkins Bloomberg School of Public Health | Cochlear Center for Hearing and Public Health*, [www.jhucochlearcenter.org/infographic-hearing-loss-and-healthcare-utilization](http://www.jhucochlearcenter.org/infographic-hearing-loss-and-healthcare-utilization). Accessed 19 Dec. 2023.