JOINT LEGISLATIVE AUDIT AND REVIEW COMMISSION
OF THE VIRGINIA GENERAL ASSEMBLY

EVALUATION OF PROPOSED
MANDATED HEALTH INSURANCE BENEFITS

Evaluation of House Bill 237: Mandated Coverage of Hearing Aids for Children

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JLARC Staff for This Evaluation

Hal Greer, Division Chief
Kimberly Sarte, Principal Fiscal Analyst
Jenny Breidenbaugh, Senior Associate Legislative Analyst

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Evaluation of HB 237: Mandated Coverage of Hearing Aids for Children

JLARC SUMMARY

House Bill 237 (HB 237) of the 2008 General Assembly would mandate health insurance coverage of hearing aids for children from birth to age 18. Coverage would include payment for one hearing aid per hearing-impaired ear every 24 months, up to $1,500 per hearing aid. The bill requires coverage for only those services and equipment prescribed by a licensed audiologist.

MEDICAL EFFICACY AND EFFECTIVENESS

Studies of the efficacy and effectiveness of hearing aids are limited, in part because universal newborn hearing screening is a fairly recent trend. Therefore, the number of infants diagnosed with hearing loss has been inadequate to demonstrate efficacy. While the use of hearing aids to improve a child's ability to hear is well established, studies do not separate the effects of hearing aids on children's development from other intervention services, such as speech and language therapy. Various studies have shown the positive impacts of early intervention, including hearing amplification, on speech and language development.

SOCIAL IMPACT

From 16 to 21 in every 1,000 children under 18 years of age have some degree of hearing loss, and almost 60 percent of Virginia children with hearing impairment use hearing aids for amplification.

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However, health insurance coverage of hearing aids for children is limited and only five percent of insurers in Virginia currently provide coverage. The average cost of hearing aids ranges from $500 to $3,500 each, plus related fees and services. These costs may be prohibitive for some families. Coverage for hearing aids is available to children under age three through an early intervention mandate, and several other programs are available to assist children with obtaining hearing aids. However, some children in the population affected by mandates may not benefit from some of these programs.

FINANCIAL IMPACT

HB 237 would likely increase the use of hearing aids since some children who need hearing aids currently do not have them. However, reducing the frequency of hearing aid replacement in the proposed bill from 24 months could lessen the impact of increased utilization. The median estimated impact of HB 237 on health insurance premiums for standard and group optional coverage ranges from $0.42 to $1.20 and is expected to be comparable to other mandates. However, establishing coverage for hearing aids for children has the potential to reduce cumulative lifetime costs related to the condition such as those associated with special education and lost economic productivity. The impact of the proposed mandate on hearing aid providers is unclear, but it appears hearing aids prescribed or dispensed by some providers, in particular, otolaryngologists and some hearing aid specialists, would not be covered. HB 237 appears to be in conflict with State and federal laws and regulations on this issue and, as a result, may limit access to hearing aids in certain areas of the State.

BALANCING MEDICAL, SOCIAL, AND FINANCIAL CONSIDERATIONS

Given the positive impact on public health and the potentially significant financial impact on families in obtaining hearing aids for their child, the proposed mandate is consistent with the role of health insurance. Further evidence that insurance coverage is appropriate is the fact that Medicaid and the State employee health plan provide coverage, and health insurance frequently provides coverage for other means of amplification. Utilization of hearing aids for children would likely increase as a result of the mandate, as would the cost to health insurance companies. However, despite these increases, the overall societal and total health-care costs may decrease because the use of hearing aids has shown positive impacts on children's development in multiple areas.

Evaluation of House Bill 237: Mandated Coverage of Hearing Aids for Children

House Bill 237 (HB 237) of the 2008 General Assembly would mandate health insurance coverage of hearing aids for children from birth to age 18. Coverage would include payment for one hearing aid per hearing-impaired ear every 24 months, up to $1,500 per hearing aid. Individuals who are covered may choose a higher-priced hearing aid and pay the difference in cost above $1,500. The coverage provided by the bill only applies to the services and equipment prescribed by a licensed audiologist.

BACKGROUND

Hearing aids are devices commonly used for amplification for individuals who are deaf or hard of hearing. For children, early detection and intervention of hearing loss are important for speech and language development. Intervention, including amplification with hearing aids, requires a multidisciplinary approach and the active involvement of the family and the child. Eight states currently mandate coverage (or offer of coverage) for hearing aids for children and four similar mandates have been previously introduced in Virginia.

a. Description of Medical Condition and Proposed Treatment

All infants born in Virginia are screened for hearing loss through mandated newborn hearing screening. Through this screening, children with a range of types and causes of hearing loss are identified. A variety of programs and professionals are involved in managing hearing loss in children, including identifying the proper amplification for children, such as hearing aids, and training them in the use of such devices. Digital behind-the-ear hearing aids are the recommended and most common type of hearing aid used by children with hearing loss.

Hearing Loss. Hearing loss in children is especially significant because childhood is a crucial time for developing communication skills, including speech and language. Left untreated, hearing loss can lead to delayed speech and language development, social and emotional problems, and academic failure. Further, hearing loss may be a safety concern when children are unable to hear audible

warnings such as fire alarms and sirens. There is no consensus as to whether hearing loss is considered a disability or handicap. For reporting purposes and the provision of special education services, the U.S. Department of Education identifies children with a hearing impairment as having a disability. However, medical experts in Virginia felt it was important to note that hearing loss does not have to be a handicap as children can develop normally with amplification.

Hearing loss is evaluated based on the intensity of hearing thresholds (the softest sound perceived) at various frequencies. Frequency of sound is measured in hertz (Hz) to describe what is commonly thought of as "pitch" in terms of the number of vibrations per second. A child with normal hearing can detect frequencies from 20 to 20,000 Hz, but this ability decreases with age. Most adults do not hear sounds above 10,000 Hz. The frequency range of human speech is 100 to 4,000 Hz. Intensity of sound expresses what is commonly thought of as "loudness" in decibels (dB). The baseline for normal human hearing begins at zero dB. A whisper is measured at 30 dB and normal conversation at 60 dB. The dB thresholds across frequencies tested from 250 Hz to 8,000 Hz are used to determine appropriate amplification, which most commonly is a hearing aid.

Degrees of hearing loss are defined differently by different sources. However, average normal hearing is defined as being able to hear sound between zero and 15 dB and above. Table 1 shows the degrees of hearing loss and the likely effects of hearing loss in each range as reported by the Virginia Department of Health (VDH). The table also reports the average hearing level measured in dB. This range represents the level at which the individual is able to hear noises or sounds. For example, a child with mild hearing loss can hear sounds that measure within 26 to 40 dB and above.

Hearing loss results from a range of many possible causes and is categorized into four types:

- Conductive hearing loss is the most common type in children and occurs when sound waves cannot pass into the inner ear. Recurring ear infection is the most common cause. This type of hearing loss can often be corrected with medical or surgical treatment and in some cases, hearing aids may be used.
- Sensorineural hearing loss develops when the auditory nerve or hair cells in the inner ear are damaged by aging, noise, illness, injury, infection, head trauma, toxic medications, or an inherited condition. Sensorineural

hearing loss is irreversible and the use of hearing aids in children with this type of loss is common.

- Mixed hearing loss is a combination of conductive and sensorineural hearing loss. The recommendation for hearing aids in mixed hearing loss depends on many factors.

Table 1: Degrees of Hearing Loss and Potential Effects

Degree of Loss	Average hearing level in decibels (dB)	Potential Effects
Normal	0-15 dB	All speech sounds heard.
Minimal	16-25 dB	Loss of some sounds. May have difficulty hearing quiet or distant speech, especially in noisy environments.
Mild	26-40 dB	Can hear most speech sounds, but miss certain fragments of words. With amplification, can understand all spoken communication at close distances.
Moderate	41-55 dB	Without amplification, 50-100% of speech sounds may be missed, which may effect speech development. Amplification can enable the individual to hear and distinguish all sounds.
Moderate severe	56-70 dB	Conversations cannot be understood, unless very loud. Age, consistency of amplification, and intervention will determine speech and language development.
Severe	71-90 dB	May be aware of loud voice near the ear, without amplification. Spoken language will not develop unless interventions occur. With amplification, should be able to detect all sounds of speech and environment.
Profound	91 dB or greater	Awareness of vibrations. Relies on vision rather than hearing as the primary means of communication and learning. Spoken language will not develop without intervention and amplification. Speech intelligibility often greatly reduced and atonal voice quality likely.

Source: Virginia Department of Health, Information for Parents of Children with Hearing Loss: Virginia's Resource Guide for Parents; and Northern and Downs (2002) *Hearing in Children*, Fifth Edition.

Hearing loss can occur in one or both ears. Unilateral hearing loss occurs in one ear. Children with unilateral hearing loss may function adequately in certain situations, and are very likely to have difficulty in environments with even slight levels of background noise, such as in a typical school classroom. Many children with unilateral hearing loss receive benefit with one hearing aid. Bilateral hearing loss occurs in both ears and may require binaural hearing aids. The use of binaural hearing aids for those with bilateral hearing loss is preferred for several reasons, including (1) bet-

ter hearing in noisy environments, (2) better understanding of consonant sounds, (3) improved localization (determining where a sound is coming from), and (4) avoidance of deterioration of the unaided ear.

Newborn Hearing Screening and Early Intervention Services. According to VDH, children with hearing loss have the best chance to learn speech and language skills when their hearing loss is identified early and they receive appropriate services. Based on a review of the medical literature, there are two primary justifications for universal newborn screening. First, a critical period exists for optimal language skills to develop, and the earlier the intervention, the better the outcomes for these skills. Second, treatment of hearing loss has been shown to improve communication. Medical research has shown that "diagnosis and intervention before six months of age can improve language and speech acquisition in hearing impaired children." According to medical experts, research has shown that if the hearing system is not used early in life, it will deteriorate permanently.

Currently 46 states, including Virginia, conduct newborn hearing screening. Mandatory newborn hearing screening of all infants born in Virginia hospitals was codified (*Code of Virginia* §32.1-64.1) in 1998 and health insurance coverage of the screening was mandated in 2001. Newborn screening utilizes two tests to identify hearing loss in infants: automated auditory brainstem response (AABR) and otoacoustic emissions (OAE). AABR tests the auditory pathway while the infant is sleeping by covering the infant's ears with earphones that produce soft clicking sounds. Electrodes placed on the infant's forehead and neck measure brain waves in response to the clicks and a computer analyzes the brain wave activity. OAE detects sensorineural hearing loss greater than 40 dB. In this test, a small microphone is placed in the ear canal and a computer analyzes the response of the ear to a series of clicks.

Newborn screening results are reported to the parents, the child's pediatrician, and VDH. The Virginia Early Hearing Detection and Intervention Program at VDH refers infants for further testing, provides follow-up reminders for parents, and refers them for early intervention services. Intervention services are provided through the Part C early intervention grant program administered by the Department of Mental Health, Mental Retardation and Substance Abuse Services (DMHMRSAS). In 1998, the General Assembly mandated coverage of early intervention services (*Code of Virginia* §38.2-3418.5) to provide medically necessary assistive technology devices (including hearing aids) for children from birth to three years of age who are found eligible.

Management of Hearing Loss in Children. After a newborn is identified with hearing loss, typically through newborn hearing screening, the child is referred to an audiologist or otolaryngologist for further diagnosis and assessment. Tests are conducted to determine the cause, degree, and type of hearing loss. This information will assist professionals in determining the proper type of amplification, if applicable. In many cases, a hearing aid is the proper type of amplification for a child.

An audiologist diagnoses, treats, and manages individuals with hearing loss. In Virginia, audiologists hold a master's or doctorate degree in audiology and are licensed by the Board of Audiology and Speech Pathology. The doctorate is the entry-level degree for Audiologists now entering the profession. They use specialized equipment to accurately diagnose hearing loss, and then recommend appropriate intervention for the diagnosed hearing loss. Audiologists provide complete hearing aid services for children, including dispensing and fitting hearing aids when identified as an appropriate intervention. Audiologists dispense (sell) the majority of hearing aids in the United States; however, in Virginia they must also be licensed as a hearing aid specialist in order to sell hearing aids. As of June 2008, there were 416 licensed audiologists in Virginia. Audiologists are also trained to recognize medical problems causing hearing loss and refer these patients to an otolaryngologist. Audiologists refer patients to an otolaryngologist for medical evaluation and treatment of hearing loss, especially for problems that require surgery.

According to federal and State regulations (18VAC80-20-230), a child may not be fit for a hearing aid unless a medical evaluation has been conducted by an otolaryngologist (or other qualified physician) within the previous six months. Otolaryngologists are commonly known as ENT physicians because they specialize in the diagnosis and treatment of ear, nose, and throat disorders. With regard to hearing, an otolaryngologist determines the etiology (cause) of the hearing loss and whether it is appropriate to treat the hearing loss with a medical or surgical intervention such as cochlear implants or bone-anchored hearing aids (discussed below). Otolaryngologists also assess a patient's need for hearing aids and refer the patient to an audiologist or hearing aid specialist.

Selection and fitting of a hearing aid involves several steps, including determining the aid prescription, selecting an appropriate aid, and confirming the appropriateness of the aid. According to the American Academy of Audiology, the goal of hearing aid fitting is to provide a signal that makes a range of sounds audible but not uncomfortable and provides excellent sound quality in various listening environments. Once the hearing aid is received, testing and measurements of a child's performance are conducted while wear-

ing the hearing aid. These tests help professionals to determine the appropriateness of the selected hearing aid. Most children who are candidates for hearing aid amplification use behind-the-ear aids. However, according to medical professionals, this varies by age. In teenagers, aesthetics and appearance may be important considerations and therefore, smaller aids that fit in the ear canal are more popular.

Hearing aid specialists fit and dispense hearing aids and, in Virginia, are regulated by the Board for Hearing Aid Specialists under the Department of Professional and Occupational Regulation. According to the *Code of Virginia* §54.1-1500, a hearing aid specialist is "a person who engages in the practice of fitting and dealing in hearing aids or who advertises or displays a sign or represents himself as a person who practices the fitting and dealing of hearing aids." According to staff at the Board for Hearing Aid Specialists, hearing aid specialists are not authorized to make medical diagnosis or perform treatment. As of September 2008, there were 563 licensed hearing aid specialists in Virginia. Hearing aid specialists have a high school education, at minimum, and training and experience related to fitting and selling hearing aids.

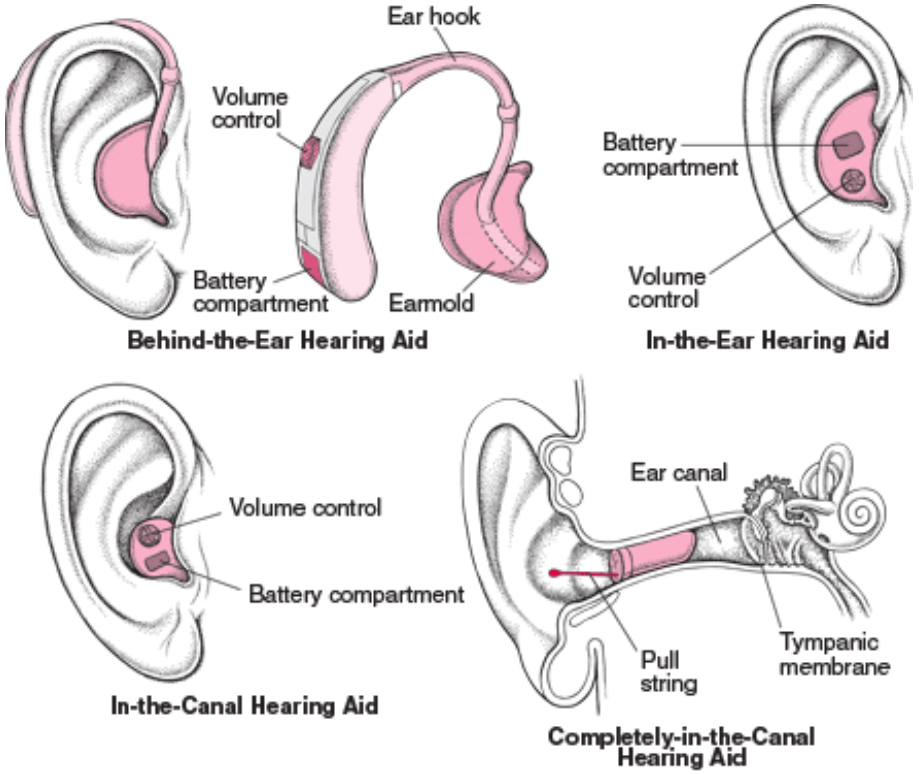
Ongoing monitoring is needed to validate the appropriateness of the aid, refine the diagnosis of hearing impairment, and adjust the aid to accommodate the child's growth and maturation. Once fitted with a hearing aid, follow-up visits may be needed every three months; however, the frequency of follow-up typically decreases as the child gets older. Orientation is important for the parents and child to teach them how to place, adjust, remove, and clean the aid, change the battery, perform basic troubleshooting, and address other concerns. In addition, counseling for the family is recommended to educate them on hearing loss and recommended technology to increase hearing.

Speech-language pathologists hold a master's or doctorate degree in communication sciences and disorders and are licensed by the Board of Audiology and Speech Pathology. The role of a speech-language pathologist is to evaluate speech and language development, assess speech disorders, and treat or habilitate speech disorders. As of June 2008, there were 2,541 speech pathologists in Virginia; 108 of these were certified as a school speech pathologist.

Types of Hearing Aids. Hearing aids are the most common device used for amplification for children who are deaf or hard of hearing. Hearing aids have three components: a microphone, amplifier, and receiver. The microphone picks up sounds from the environment and changes them into electrical signals. The amplifier enhances the electrical signal, which then passes through a receiver that converts the signal back to sound. The amplified sound passes into

the user's ear canal through the earmold. There are four basic types of hearing aids, each suitable for different needs and populations (Figure 1):

Figure 1: Types of Hearing Aids



Source: Merck & Co, Merck Manuals: Online Medical Library, Hearing Loss and Deafness.

- Behind-the-ear (BTE) –A hard plastic case is worn behind the ear and connects to a plastic earmold that fits inside the outer ear. The device is used for mild to profound hearing loss and is suitable for all ages. It is the type of hearing aid most frequently used by children.
- In-the-ear (ITE) – This device fits completely inside the ear and is used for mild to severe hearing loss. It is not usually worn by children because the casings must be replaced as the ear grows.
- Canal aid – The device fits into the ear canal. In-the-canal (ITC) aids are made to fit the size and shape of the person's ear canal and the completely-in-canal (CIC) aids are hidden in the ear canal. Both are used for mild to moderately severe hearing loss, and are not recommended for young children due to their small size.

- Body aid – This device is enclosed in a case and attached to the clothing, or carried in a pocket or around the neck. It is larger and more bulky than other aids and often used by children with multiple handicaps or developmental disabilities in addition to hearing loss.

As mentioned, BTE hearing aids are the type most commonly used by children. There are several reasons for this: (1) they can be easily adapted to the growing ear, (2) they are easily cleaned, (3) they are rugged, (4) the controls are visible and easily checked and adjusted by parents, (5) they accommodate the widest range of hearing loss (from mild to profound), and (6) they can be made to connect to other amplification technology.

Hearing aids are available in two types of technology: analog and digital. The type of electronic technology is what most impacts the price of hearing aids. When first introduced digital aids were more expensive; however, the price gap is decreasing as analog technology becomes more obsolete and fewer manufacturers produce or support analog hearing aids.

- Analog aids convert sound waves into electrical signals, which are then amplified. The audiologist is able to determine the volume and other specifications for the user, and the aid is built according to these specifications. The analog aid can be adjusted by the audiologist using a computer and adapted to suit different hearing environments.
- Digital aids convert sound waves into numerical codes, which are then amplified. They use a microphone, receiver, battery, and computer chip. The digital aid is also programmed with a computer and the sound quality can be adjusted based on the individual, providing an exact match to the individual's hearing loss.

According to medical experts, analog hearing aids are outdated and not recommended. Digital hearing aids are the current standard of care for children with hearing loss, and analog aids are becoming obsolete. According to medical experts, however, analog hearing aids may still be used, in some cases, by children whose families cannot afford the digital aids.

Earmolds and batteries are hearing aid parts that have to be replaced at regular intervals. The earmold supports the outer ear, directs sounds into the ear canal, and prevents feedback when properly fitted. According to pediatric amplification protocol, earmolds are replaced as the outer ear grows. Reevaluation and replacement should be every three to six months for young children

and once per year after age five. For infants, earmold replacement may be necessary on a monthly basis. Coverage of earmolds for children's hearing aids is included in HB 237 under related services.

All hearing aids use batteries to operate. There are several types and sizes of hearing aid batteries, and the average lifespan of a battery is one to four weeks. Hearing aid batteries are sold by pharmacies, hearing aid providers, and online. HB 237 would mandate coverage for only initial hearing aid batteries.

Other Types of Amplification and Equipment. Frequency modulation (FM) systems are commonly used by children with hearing aids to mitigate the effects of poor classroom acoustics. The FM system works like a miniature radio station. A receiver connects to the child's hearing aid and the speaker (frequently a teacher or parent) wears a microphone with a transmitter worn on the belt or in the pocket. The FM system amplifies the speaker's voice above the background noise and reduces the effects of reverberation and distance. The systems are most commonly used with BTE aids. According to the National Institute of Deafness and Other Communication Disorders, the cost of FM systems may range from $2,100 to $2,500. In the United States, certain broadcast frequencies are designated for hearing aid FM system use.

For some children with hearing loss, other types of amplification, such as cochlear implants and bone anchored hearing aids (BAHA), may be more appropriate than traditional hearing aids. Cochlear implantation is considered for children 18 months of age and older who have profound, bilateral sensorineural deafness. These children would receive minimal benefit from the use of a hearing aid. Cochlear implants are surgically implanted and deliver electrical stimulation to the inner ear and a cranial nerve. The implant does not allow for normal hearing, but the brain interprets the electrical stimulation as sound. According to the Food and Drug Administration, 15,500 children in the United States received cochlear implants by the end of 2006. Some children who are deaf acquire speech due to the assistance of the cochlear implant and speech-language therapy. However, the results of cochlear implantation are mixed, and further study is needed to understand factors that predict success.

The BAHA is a surgically implanted hearing aid used for individuals with conductive hearing loss, unilateral hearing loss, or mixed hearing loss who cannot use traditional hearing aids. BAHA aids transmit sound directly through the bone to the inner ear. A titanium post is surgically inserted into the skull with a portion remaining outside the skin. A sound processor is attached on the exterior and detects and transmits sound vibrations through the

titanium post. Health insurance companies are more likely to provide coverage for cochlear implants and implantation of BAHA aids because they involve surgical procedures.

b. History of Proposed Mandate

There have been four prior proposals for mandated coverage of hearing aids. In 2000, HB 554 and SB 272 would have mandated coverage for hearing examination, hearing aids, and related services, including one examination and two hearing aids every 36 months. The proposed mandates were not limited to children. The Special Advisory Commission on Mandated Health Insurance Benefits (Advisory Commission) found that some insurers provide coverage for hearing exams, and therefore concluded that a mandate was unnecessary. Further, the Advisory Commission pointed out that some resources for purchasing hearing aids exist, and there was concern that mandating hearing aids could increase health insurance premiums.

In 2001, SB 1191 would have mandated coverage of hearing aids and related services every 48 months up to $1,200 per hearing aid. This mandate was not limited to children. The Advisory Commission voted against recommending enactment of SB 1191.

In 2003, HB 2032 would have required coverage of hearing aids and related services for children up to age 18 and was similar in coverage to the current proposed mandate. The coverage would have included one hearing aid per hearing-impaired ear every 36 months up to $1,400 per hearing aid. (HB 237 includes coverage every 24 months up to $1,500 per hearing aid.) The Advisory Commission voted unanimously against enactment of the mandate, citing that a mandate could increase the cost of health insurance premiums and thereby increase the number of uninsured Virginians.

Seven states mandate health insurance coverage for hearing aids for children, including Connecticut, Kentucky, Louisiana, Maryland, Minnesota, New Mexico, and Oklahoma. The requirements vary by payment amount, replacement frequency, and covered ages. For example, Connecticut only mandates coverage for children 12 years of age or younger. Rhode Island has a mandated offer of coverage for hearing aids for all ages.

c. Proponents and Opponents of Proposed Mandate

Proponents and opponents of HB 237 will have the opportunity to express their views at the Special Advisory Commission on Mandated Health Insurance Benefits public hearing on October 27, 2008. Proponents of HB 237 appear to be advocates for children

who are deaf or hard of hearing. Proponents argue that hearing aids are critical to allow children with hearing loss to develop speech, language, and communication skills at an early age. Proponents further argue that children who do not have access to hearing aids experience education deficits and are less able to participate in and contribute to mainstream society.

The main opposition to the mandate appears to be from the health insurance industry. Industry representatives oppose the legislation because they indicate that several State services are available to assist children who need hearing aids. If hearing aids for children are offered through the State as opposed to requiring a mandate, the services reach a broader section of the population since mandates only apply to a certain proportion of the population. In addition, the health insurance industry is concerned that a mandate would increase the cost of hearing aids. The industry also points out that some health insurance companies may provide services through a rider policy or through an appeal for coverage. Also, some small employers do not offer dependent coverage; therefore, the mandate would not assist their employees in gaining coverage of hearing aids for their children.

The Virginia Society of Hearing Aid Specialists (the Society) is also opposed to HB 237 due to the exclusion of hearing aid specialists as a covered provider in the bill. The Society believes that limiting coverage of hearing aids for children to only those prescribed by audiologists would limit families' access to aids for children. They would be willing to support a bill that provided coverage for hearing aids dispensed by physicians, audiologists, or hearing aid specialists.

MEDICAL EFFICACY AND EFFECTIVENESS

Studies of the efficacy and effectiveness of hearing aids are limited partially due to the fact that universal newborn hearing screening is a fairly recent trend; therefore, adequate numbers of infants diagnosed with hearing loss were unavailable to demonstrate efficacy. While the use of hearing aids to improve a child's ability to hear is well established, studies do not separate the effects of hearing aids on children's development from other intervention services, such as speech and language therapy. Various studies have shown the positive impacts of early intervention, including hearing amplification, on speech and language development as well as social-emotional development.

a. Medical Efficacy of Benefit

There are no randomized, controlled clinical trails on hearing aids for children who are deaf or hard of hearing. According to a medi-

cal literature review and medical experts, this reflects the current thinking on hearing aids are the accepted standard of care. Therefore, researchers find it unethical to withhold or delay access to hearing aids for research purposes. As a result of the increased number of infants diagnosed with hearing loss in recent years due to newborn screening, more research is being conducted on the effect of hearing aids for children. Previously, most children with minimal degrees of hearing loss were not identified until school age, and children with higher degrees of hearing loss may not have been identified until age three.

b. Medical Effectiveness of Benefit

The use of hearing aids to improve a child's ability to hear is well established and accepted. Therefore, most studies consider the impact of the child's age at the time hearing loss is diagnosed and subsequent interventions on the child's speech, language, and social development. Various studies have shown the importance of early intervention, including hearing amplification, to speech and language development as well as social-emotional development. Children with mild to profound hearing loss who are identified in the first six months of life and provided with appropriate amplification (including hearing aids) and intervention services have significantly better outcomes than those identified after six months of age. Positive outcomes are seen in vocabulary, language, syntax, speech, and social-emotional development.

A difficulty with assessing hearing aids is that current studies do not separate the effects of hearing aids from other intervention services, such as special education. As discussed above, researchers consider it unethical to withhold interventions such as speech and language therapy from a child in order to investigate the impact that a hearing aid alone would have on a child. Therefore, it is unknown how the hearing aid alone would impact the development of the hearing-impaired child.

In 2007, the California Health Benefits Review Program which also reviewed a proposed hearing aid mandate in California, identified 14 studies that examine the relationship between age at intervention and outcomes for children with hearing loss. A summary of the studies is as follows:

- Studies that examined the impact of age at intervention on speech found that children who enrolled in intervention programs, including hearing aid fitting, at a younger age had better speech production, including vocalizing syllables, than children who enrolled later. Another study examining children fit with hearing aids before and after six months of age found that children fit

before six months had speech that was more easily understood than those fit after six months.

- Six studies assessed age at intervention on children's vocabularies and found that children with hearing loss who were treated at a younger age had statistically significant higher scores on receptive vocabulary tests (comprehension of spoken words and sentences).
- Four studies found that children whose hearing loss was diagnosed at or before six months of age had statistically significant higher scores on expressive vocabulary tests (vocabulary used when communicating with others). One study found no statistically significant difference in expressive vocabulary scores.
- Two studies show that children with hearing loss who were diagnosed and treated at or before six months of age developed language skills comparable to children with normal hearing.
- Three studies addressed the effect of age at intervention on nonverbal interactions, such as observation, imitation, and motor behavior. The studies found that children diagnosed and treated at or before six months of age had significantly more advanced nonverbal interactions than children who were diagnosed with hearing loss after six months.
- Five studies examined the impact of age at intervention on the personal and social development of children with hearing loss. Study results were positive for children who received earlier treatment and intervention, but the results were found to be statistically insignificant.

SOCIAL IMPACT

From 16 to 21 in every 1,000 children under 18 years of age have some degree of hearing loss, and almost 60 percent of Virginia children with hearing impairment use hearing aids for amplification. However, health insurance coverage of hearing aids for children is limited. According to a survey of insurers, only five percent currently provide coverage. The average cost of hearing aids ranges widely from $500 to $3,500 each plus related fees and services. These costs may be prohibitive for some families. Coverage for hearing aids is available to children under age three through an early intervention mandate and program, and several other programs are available to assist some children with obtaining hearing aids. However, some children in the population affected by mandates may not be able to benefit from some of these programs. Based on anecdotal evidence, the proposed mandate as written

may limit access to hearing aids in certain areas of the State by only covering those services and aids prescribed by audiologists.

a. Utilization of Treatment

According to a national survey by Gallaudet University, 58.7 percent of Virginia children with hearing impairment use hearing aids for amplification. No State data is collected that could be used to estimate a utilization rate for children in Virginia with hearing aids. According to medical experts, not all children with hearing loss benefit from the use of a hearing aid. For example, most children with conductive hearing loss and children who are eligible for cochlear implants do not use hearing aids. However, staff at DOE believe that the Gallaudet University utilization estimate may be low.

Data from the State Medicaid plan confirms what medical experts have indicated, which is that behind-the-ear (BTE) aids are the most common type of hearing aid used by children. More than 80 percent of children's hearing aids covered by Medicaid are BTE, and digital BTE aids represent nearly half of all aids used by children (Table 2). Medicaid data likely under-represents the use of digital hearing aids, in general because the State Medicaid plan required preauthorization for digital aids until 2008, which may have depressed requests for them.

Table 2: Most Common Hearing Aids Purchased by Children With Medicaid Coverage, January 2006-September 2008

Type of Aid	Technology	Number of Children	Average Age of Use	Proportion of Aids
BTE	Digital	136	9.2	48.7%
BTE	Analog	81	11.1	29.0
ITE	Analog	16	15.0	5.7
BTE	Digitally Programmable	12	11.7	4.3
CIC	Digital	9	14.3	3.2
ITE	Digital	9	15.1	3.2
ITC	Digital	6	15.5	2.2
Other	N/A	10	11.1	3.6
Total		**279**		

Source: Data from the Department of Medical Assistance Services.

Medicaid data shows that that in-the-ear (ITE), in-the-canal (ITC), and completely-in-the-canal (CIC) aids are more commonly used by teenagers than younger children. Table 2 also shows the average age of use of hearing aids by type. For example, the estimated average age of use for BTE hearing aids is slightly less than 10 years while the average age for ITE aids is 15 years. For ITC aids the average age is 15.5 years, and for CIC aids it is 14.3 years.

b. Availability of Coverage

In 2008, the Virginia State Corporation Commission Bureau of Insurance (BOI) surveyed the top 50 insurance carriers in Virginia regarding proposed mandates. Of the 42 insurers that responded to the survey, two (five percent) indicated coverage of hearing aids for children as a standard benefit. Another six insurers (14 percent) indicated that coverage is available on an optional basis for group policies. An additional three companies reported that they provide coverage for hearing aids under the early intervention mandate for children under three years of age, but this is not the full range of coverage that would be required by HB 237.

The coverage in HB 237 would overlap with an existing mandated benefit. As mentioned previously, coverage of hearing aids for children under three years of age is required under the early intervention services mandated benefit pursuant to *Code of Virginia* §38.2-3418.5. The benefit covers assistive technology (including hearing aids) and is limited to $5,000 per insured child per year.

According to health insurance companies and medical experts, health insurance coverage for cochlear implants and BAHA aids is provided more frequently than coverage for hearing aids. The rationale for this difference is that the implantation of cochlear implants and BAHA aids are surgical procedures. However, the coverage of these procedures indicates that the health insurance industry recognizes the value of amplification for hearing loss and the role of these procedures in addressing this need.

c. Availability of Treatment/ Benefit

There does not appear to be a problem with the general availability of hearing aids. However, as written, HB 237 may limit access to hearing aids. HB 237 limits coverage for hearing aids to those prescribed by audiologists and would not cover those prescribed by otolaryngologists or other licensed physicians. In some cases, an otolaryngologist or other physician may complete a medical evaluation, recommend a hearing aid, and refer the child directly to a hearing aid specialist licensed to fit and dispense the aid. In these cases, it appears the hearing aid may not be covered. The Virginia Society of Hearing Aid Specialists opposes the bill for this reason.

According to staff from the hearing aid loan bank, access to audiologists with the equipment and training to assess infants and children appears to be limited in certain areas of the State, including Northern Virginia and Tidewater, and certain rural areas like Southwest Virginia. However, statewide there do not appear to be issues of availability for hearing aid specialists (providers). There

were 416 licensed audiologists statewide as of June 2008 and 563 licensed hearing aid specialists as of September 2008. Some audiologists are also hearing aid specialists. The State does not collect data on the number of audiologists who are also hearing aid specialists and vice versa.

d. Availability of Treatment Without Coverage

As previously discussed, hearing aids for children are widely available for purchase. However, the cost may be prohibitive for some families without insurance coverage. There are several programs available to assist families with the purchase of hearing aids. However, some children may be unable to benefit from these programs due to age and income restrictions.

Two State programs provide hearing aids for children who meet certain eligibility requirements, and other State programs provide assistance to children with hearing impairment through a hearing aid loaner program and low interest loans for purchasing aids. Care Connection for Children through VDH provides care coordination, information, and referrals for children with a physical condition lasting longer than 12 months, and may assist families that are uninsured and at or below 300 percent of the federal poverty level (FPL) to purchase hearing aids for children. Data on the provision of hearing aids through this program is unavailable because the devices are grouped under the general category of durable medical equipment.

Newborns with hearing impairment identified through the newborn hearing screening are referred to Part C early intervention services after hearing loss is confirmed; the early intervention program is administered by DMHMRSAS. Part C provides services for all eligible Virginia children under three years of age, regardless of income level, and congenital or acquired hearing loss qualifies a child for services through the mandate. A team of professionals work with the family to write an individualized family service plan and determine the child's need for assistive technology, such as hearing aids. If the need for a hearing aid is established, Part C funds may be used to purchase the aid; however, Part C is a payer of last resort. Therefore, all other resources of the family must be exhausted before program funds are used, including coverage provided by insurance through the early intervention mandate. The Part C program does not collect data on the number of children with hearing impairment or who receive hearing aid(s) through the program.

The Assistive Technology Loan Fund Authority (ATLFA) is established by the *Code of Virginia* §51.5 Chapter 11 as a political subdivision of the State. ATLFA, renamed the NewWell Fund, pro-

vides low interest loans for the purchase of assistive technology to families at any income level. The number of loans given to purchase hearing aids for children is unknown, since the NewWell Fund does not track recipients' ages. From July 2000 to September 2008, the fund provided 110 loans for the purchase of hearing aids. However, staff indicated that only a few of these hearing aids were for children. The fund has not received a State appropriation since 1998.

The Virginia Hearing Aid Loan Bank was established in 2005 to loan hearing aids and FM systems to children statewide under 18 years of age for up to six months. The purpose of this program is to bridge the gap between the child's diagnosis of hearing loss and the receipt of a hearing aid. Also, the bank loans hearing aids to children who are required by health insurance providers to conduct a hearing aid trial in order to qualify for coverage for a cochlear implant. The loan bank has 103 hearing aids and 20 FM systems. Since June 2005, the bank has loaned equipment to 187 children—145 borrowed hearing aids, 23 borrowed hearing aids and FM systems, and 19 borrowed only an FM system.

Until November 2007, the Consumer Services Fund, through the Department of Rehabilitative Services, provided grants to individuals with disabilities who could not qualify for loans though the NewWell fund. It was recommended as an untapped funding source for children with hearing aids in the 2004 *Report on Funding for Children's Hearing Aids* by the Secretary of Health and Human Resources, but the fund was eliminated in November 2007 due to State budget cuts.

Other organizations and clubs occasionally assist families with the cost of hearing aids for their children. Local groups such as the Lions, Masons, and churches may contribute towards the purchase of hearing aids. Also, two national non-profit organizations, the HIKE fund and Hear Now, provide assistive technology for children and families who cannot afford it. The HIKE fund provides hearing aids and other assistive technology devices to children with hearing impairment up to age 20. In 2007-2008 the HIKE fund provided two awards to Virginia families for a total of $5,710. Hear Now provides hearing aids for low-income individuals (below approximately 170 percent FPL) and is a payer of last resort program. In 2007, the program provided 119 hearing aids in Virginia; however, none of these were to children. Staff at Hear Now indicated that children typically qualify for coverage through Medicaid or other State programs. Since their income requirements are lower than those of Medicaid and other programs, they target a similar population. Other national, State, and local programs may provide assistance for families to purchase hearing aids for children.

e. Financial Hardship

The costs of purchasing hearing aids for children include both initial and ongoing costs. Initial costs include the hearing aid(s) itself, aid fitting and dispensing fees, hearing aid warranty against loss or damage (highly recommended for children), earmolds, and a battery. Ongoing costs include repairs or modification, earmolds, and batteries.

The average price of hearing aids ranges widely from $500 to $3,500 each. Prices tend to vary based on the market and area of the State. Most children have binaural hearing loss and therefore require two hearing aids. Digital aids and smaller aids, more commonly used by teenagers, tend to be more expensive than analog aids and BTE aids. One health insurance company in Virginia covered hearing aids for nine children in FY 2008. Four of these children received binaural digital BTE aids at an average total cost of $1,440. As mentioned, digital hearing aids are the current standard of care, especially for children. According to medical experts, the life expectancy of a hearing aid is three to five years.

Fitting and dispensing fees are directly related to the cost of purchasing a hearing aid. A fitting fee is charged for the process of evaluating and adjusting the performance of the aid. This fee is either a certain percentage of the cost of the aid or an established amount. The dispensing fee is charged for educating the parents and child about the hearing aid, including instructions for use and care. The dispensing fee is often included in the fitting fee, but providers explain that these are separate procedures. These fees may be included in the price of the hearing aids (bundled) or charged separately (unbundled).

Table 3 shows an example of the initial costs of purchasing binaural digital BTE hearing aids and annual ongoing costs. Since hearing aids have to be replaced every three to five years, the cost is less in the years when the hearing aid does not have to be replaced. Earmolds, batteries, and repair costs are ongoing and the table shows the annual average for these costs. For example, hearing aid batteries are replaced every one to four weeks and earmolds, depending upon age, are replaced several times a year.

The financial hardship is greatest for those families above 300 percent FPL (and do not qualify for State assistance) and who do not have insurance coverage for hearing aids for their children. Based on a median household income of $58,607 in Virginia in 2008, the annual cost of hearing aids for children could range from 1.5 to 6.0 percent of median household income. According to medical experts, the ongoing costs related to hearing aids for children, such as batteries, are a financial hardship for some families. Based on average

commercial rates in 2005, these ongoing costs average approximately $870 or 1.5 percent of median household income. The average cost of purchasing new or replacement hearing aids is approximately 6.0 percent of median household income based on the example in Table 3, and these costs recur every three to five years. This amount may likely be greater, as the cost figures used in Table 3 are based on average commercial rates in 2005.

Table 3: Example of Average Commercial Rates for Binaural Hearing Aids and Related Services, 2005

Item	Initial Cost	Replacement Schedule	Ongoing Annual Costs[a]
Digital BTE hearing aids, binaural	$2,800	3-5 years	$0
Fitting	112	3-5 years	0
Dispensing	300	3-5 years	0
Warranty, loss and damage	100	2 years	0
Earmolds	200	2-4 per year	600
Batteries	3	1-4 weeks	68
Repair or modification	0	As needed	202
Total	$3,515		$870

[a] Calculated based on the midpoint of range specified under "Replacement Schedule."

Source: Department of Medical Assistance Services, Decision Memorandum: Hearing Aids for Children Part II, April 3, 2006. Appendix B: Current DMAS Charges and Average Commercial Rates.

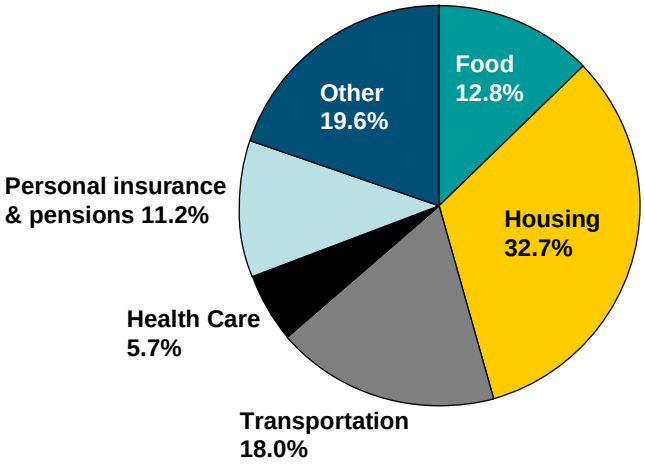
As shown in Figure 2, health-care costs are estimated to be approximately 5.7 percent of total annual U.S. household expenditures. Therefore, the cost of hearing aids could equal or exceed the total amount that households typically spend on health-care costs annually. These costs would persist throughout an individual's lifetime. Further, this amount does not include other costs related to hearing impairment that are not directly related to the hearing aid itself.

Other costs associated with hearing impairment in children exacerbate the financial hardship of purchasing a hearing aid(s). These expenses can be categorized into four areas:

- medical and audiologic expenses, including routine otolaryngology and audiologic consultations and services;
- education and training expenses, including parent-infant training programs, and speech, language, and auditory therapy;

- special living expenses, such as FM systems; special signaling devices like door bells, telephone TTY systems, fire alarms, and alarm clocks; and interpreter fees; and
- loss of income and unemployment—unemployment of deaf adults is more than twice the U.S. national unemployment rate.

Figure 2: Distribution of Total Annual U.S. Household Expenditures by Major Category, 2005



Source: Bureau of Labor Statistics, Consumer Expenditure Survey, 2005.

Another consideration is that while the $1,500 cap on coverage in HB 237 appears appropriate given the average rates discussed above, the average cost of hearing aids may increase over time. Any revision to the mandated cap would require legislative action.

f. Prevalence/ Incidence of Condition

Incidence Rate

The incidence rate is the number of new cases of a condition within a specified period of time.

Prevalence Rate

The prevalence rate is defined as the total number of cases of the condition in the population in a specific time.

The most commonly reported incidence rate for newborns with hearing loss is one in every 1,000 live births; however, as new data is released from universal newborn screening programs, the incidence appears to be closer to two or three per 1,000 live births. Medical research indicates that this rate may underestimate the number of children with hearing loss since newborn screening does not report children born with normal hearing who experience late-onset or progressive hearing loss, or children with mild hearing loss that may not be identified through newborn screening. A study released by the Centers for Disease Control and Prevention (CDC) in June 2008 found the prevalence of hearing loss in newborns to range from 1.5 to 3.6 per 1,000 children. Prevalence rates from the National Institutes of Health (NIH) range from 16.1 to 21 in every 1,000 children under 18 years of age.

Data collected by DOE and VDH estimate the number of children with hearing loss in Virginia. Based on preliminary data from 2007, 81 Virginia newborns (0.07 percent of newborns statewide) with hearing loss were identified through newborn hearing screening (Table 4). According to DOE, 2,014 children age 18 and under received special education services for hearing impaired in 2007. This number does not include all children with hearing loss in Virginia since not all of these children require special education services.

Table 4: Number of Newborns Identified With Hearing Loss Compared to the Number of Live Births in Virginia, 2001-2006

Year	Newborns With Hearing Loss[a]	Live Births	Proportion of Newborns With Hearing Loss
2001	55	96,535	0.06%
2002	60	97,390	0.06
2003	65	98,991	0.07
2004	84	101,748	0.08
2005	107	102,247	0.1
2006	111	108,716	0.1
2007[b]	81	108,261	0.07

[a] As reported to the Virginia Department of Health
[b] Provisional data

Note: The number of infants screened for hearing loss before one month of age increased from 95.1% in 2001 to 99.3% in 2006.

Source: Virginia Department of Health, Virginia Early Hearing Detection and Intervention Program.

g. Demand for Proposed Coverage

Between 4,300 and 6,700 children may benefit from coverage under HB 237. This estimate is based on the NIH prevalence rate of 16.1 to 21 per 1,000 children have hearing loss, the Gallaudet University estimate that approximately 58.7 percent of children in Virginia with hearing loss use hearing aids, and the fact that health insurance mandates only impact one-quarter to one-third of the market. However, this estimate may overstate the demand for coverage because children under three with health insurance already receive coverage through early intervention services (though some of this coverage may be used up if early intervention services are required for other things.) There is no data on which to base an adjustment for children under three years of age who receive coverage through the early intervention mandate.

h. Labor Union Coverage

Labor unions do not appear to have advocated specifically for the inclusion of this benefit in their health benefit packages. Typically, labor unions advocate for broader benefits, rather than a benefit as specific as the proposed mandate.

i. State Agency Findings

Two reports have investigated the funding for and mandated coverage of hearing aids for children. In 2004, the Office of the Secretary of Health and Human Resources released the *Report on Funding for Children's Hearing Aids*, at the request of a member of the General Assembly. According to the report, nearly 600 children in Virginia under the age of six had hearing loss; however, as is the case today, no data was available on how many of these needed or received hearing aids. Programs that offer assistance to families for purchasing hearing aids were also discussed although data on this assistance was limited. The report noted that two sources of funding were virtually untapped: the Assistive Technology Loan Fund Authority (now called NewWell) and the Consumer Services Fund. The NewWell fund is discussed in the Availability of Treatment Without Coverage section of this report, and the Consumer Services Fund was eliminated through State budget cuts in November 2007.

Senate Joint Resolution 426 of the 2003 General Assembly requested the Special Advisory Commission on Mandated Health Insurance Benefits to study the costs and benefits of requiring insurers to cover hearing aids for children under age five. The report, *Senate Joint Resolution 426 Study of Hearing Aid Coverage for Small Children*, provides background information on hearing loss in children, discusses the medical efficacy of hearing aids, and reports the survey results of health insurance companies on the premium impact of a proposed mandate. Monthly premiums costs reported by these companies range from $0.20 to $3.00 for standard group coverage of hearing aids for children under age five.

j. Public Payer Coverage

The State Medicaid program provides coverage of hearing aids for children through the Early Periodic Screening Diagnosis and Treatment (EPSDT) program. Coverage for hearing aids is provided for children under age 21 years of age enrolled in Medicaid/FAMIS Plus (0 to 133 percent FPL) and children under age 19 enrolled in FAMIS (134 to 200 percent FPL). Coverage for new hearing aids is generally limited to one aid (monaural) or one pair of aids (binaural) every five years. There is no absolute coverage limit for children's hearing aids; the Department of Medical Assis-

tance Services (DMAS) uses preauthorization to verify medical need if a new device is sought within the five years. DMAS also uses preauthorization if the cost of a device exceeds the reimbursement rate established for that particular type of hearing aid. Related services and supplies covered by Medicaid include repairs (two per year), an extended warranty, earmolds (as many as needed due to growth), and six batteries per aid per month.

Prior to 2008, coverage for hearing aids was capped at $475 per hearing aid, or $825 for binaural hearing aids, which included reimbursement for the cost of the hearing aids as well as fitting and dispensing fees. After studying the reimbursement, DMAS increased rates (effective January 1, 2008) for hearing aids and unbundled the reimbursement for fitting and dispensing, resulting in a significant reimbursement increase for the provision of the hearing aids. However, the Medicaid reimbursement amount for hearing assessments by audiologists were not changed, and remains low compared to market prices. DMAS staff indicated that access to audiologists may be limited by the relatively low reimbursement rates in some areas of the State, like Northern Virginia.

Audiology services are only reimbursed by Medicaid when they are provided by a licensed audiologist. These services include measurement, testing, and evaluation of hearing. Licensed hearing aid specialists are reimbursed for dispensing (selling) hearing aids.

Medicare does not provide coverage for hearing aids. However, this does not impact the population in question, because HB 237 proposes mandated coverage for children from birth to 18 years of age and Medicare provides coverage for certain disabled Virginians and those ages 65 and older.

k. Public Health Impact

Public Health

The role of public health is to protect and improve the health of a community through preventive medicine, health education, and control of communicable diseases.

Although the prevalence of hearing-impaired children who would benefit from the use of hearing aids is relatively low, mandating coverage of hearing aids for children could impact public health. While benefits accrue to the child gaining coverage for the hearing aid, there is also a societal benefit. Amplification increases the individual's ability to communicate and participate fully within society, and improves the individual's quality of life. Given that the population affected by this mandate would be children, the potential social impact of the proposed mandate would be to improve the ability of hearing-impaired individuals to more fully contribute to society as productive citizens. Also, children who receive appropriate amplification may have less of a need for special education and other social services throughout their life.

FINANCIAL IMPACT

HB 237 would likely increase the use of hearing aids since some children who need hearing aids currently do not have them. The median estimated impact of HB 237 on health insurance premiums for standard and group optional coverage ranges from $0.42 to $1.20 and is expected to be comparable to other mandates, which range from 0.02 to 5.30 percent depending on the mandate and type of contract. However, the estimated premium impacts are higher than what has been estimated for comparable coverage in at least one other state. Costs to insurance companies will most likely increase as a result of providing increased coverage of hearing aids for children, although reducing the frequency of hearing aid replacement in the proposed bill from 24 months could lessen this impact. In addition, establishing coverage for hearing aids for children has the potential to reduce cumulative lifetime costs related to the condition such as those associated with special education and lost economic productivity. However, evidence shows that a mandate may not change the cost of hearing aids. The impact of the proposed mandate on hearing aid providers is unclear, but it appears hearing aids prescribed or dispensed by some providers, in particular otolaryngologists and some hearing aid specialists would not be covered, which is contrary to existing State law and regulations.

a. Effect on Cost of Treatment

Representatives from the insurance industry expressed concern that mandated coverage would result in higher prices charged for hearing aids; however, evidence from other sources shows that such an increase may not occur. According to insurance representatives, hearing aid providers will increase the prices of hearing aids in order to receive a higher reimbursement. However, the California Health Benefits Review Program, which reviews the impact of proposed mandates in California, expects the cost of hearing aids to remain the same after mandating insurance coverage, in part because health insurers may obtain discounts from manufacturers and wholesale distributors as they do with other durable medical equipment. Also, data from one Virginia insurer shows that the insurer received a discount on the cost of hearing aids.

b. Change in Utilization

Mandated coverage of hearing aids for children would likely increase the use of hearing aids since some children who need hearing aids do not have them. However, reducing the frequency of hearing aid replacement compared to what is currently required in the proposed mandate could lessen this impact. In many cases, a

mandate would result in a cost shift, since a certain proportion of families whose children need hearing aids pay these costs out of pocket. The extent of the increase in demand relative to the cost shift is unknown since data on the proportion of children who need and use hearing aids is not available. However, there is anecdotal evidence that some families choose to not purchase hearing aids for their children, primarily due to cost. Mandated coverage of hearing aids for children is unlikely to increase inappropriate use of aids since hearing aids provide no advantage for children for which the need has not been established.

According to medical experts and the literature, hearing aids for children should be replaced every three to five years. HB 237 would cover one hearing aid per hearing-impaired ear every 24 months. The State Medicaid program replaces hearing aids for children every five years. Medical experts have also indicated that children losing hearing aids is a fairly common problem. Warranties that cover loss are one way to replace lost hearing aids. Decreasing the frequency of replacement hearing aids covered by HB 237, with perhaps a provision for the replacement of one lost aid or set of aids, would minimize the impact on utilization.

c. Serves as an Alternative

Mandating coverage of hearing aids for children would establish a minimum standard of care for a certain level of hearing for children who are deaf or hard of hearing. In many cases, a hearing aid serves as an alternative to the child being deaf or hard of hearing. According to medical experts, for those children who benefit from the use of a hearing aid, surgical procedures like cochlear implants or BAHA aids are ineffective in treating their hearing loss. In fact, during the process of determining eligibility for cochlear implantation, many health insurance providers require a hearing aid trial to discover whether the child would benefit from the use of a hearing aid as opposed to a cochlear implant. In other words, hearing aids do not serve as an alternative to another treatment or procedure for those children who would benefit from them.

d. Effect on Providers

The impact of the proposed mandate on providers of hearing aids is unclear, but some providers appear to be excluded from the coverage. HB 237 limits coverage of hearing aids to those prescribed by a licensed audiologist and does not appear to cover hearing aids when prescribed by an otolaryngologist (or other qualified physician). VDH protocol for the early hearing detection and intervention program recommends that an audiologist provide services for children with hearing loss, and according to staff at the hearing

aid loan bank, most recommendations for hearing aids for children are made by audiologists. However, State (18 VAC 80-20-230) and federal (21 CFR 801.420) regulations require that children under age 18 must be examined by an otolaryngologist or other licensed physician prior to the fitting and dispensing of a hearing aid. In some cases, the otolaryngologist or other physician may also prescribe the hearing aid. State law requires a hearing aid specialist license in order to dispense a hearing aid, and audiologists are also required to have a hearing aid specialist license for this purpose. However, there is concern that HB 237 may restrict insured children from obtaining prescriptions from otolaryngologists and purchasing hearing aids from hearing aid specialists who are not also audiologists. There are 563 specialists statewide that are licensed to fit and sell hearing aids in Virginia, but many are not audiologists. Limiting coverage for hearing aids to those prescribed by audiologists appears contrary to existing State and federal laws and regulations and could present access problems in some areas of the State.

Impact of Premiums on Employers' Decisions to Offer Health Insurance

"Elasticity of offer" indicates how sensitive employers are to changes in premiums in their decisions to offer health insurance. The Congressional Budget Office and others have reported an elasticity of offer of approximately -0.25 across all employers, meaning that a 10 percent increase in the average premium is predicted to decrease the likelihood of an employer offering health insurance by about 2.5 percent. Small employers are more sensitive to price and have a higher elasticity of offer. In addition to premiums, other factors affect employer decisions to offer health insurance, including the availability of public coverage such as Medicaid, non-group coverage alternatives for employees, the industry, and the employer's location.

e. Administrative and Premium Costs

The impact of HB 237 on premiums for standard and group optional coverage is expected to be in the range of other health insurance mandates, which range from 0.02 to 5.30 percent depending on the mandate and type of contract. Premium estimates were gathered by BOI through a survey of health insurers. Median monthly premium estimates for coverage of HB 237 range from $0.42 to $8.38. A low response rate may limit the usefulness of estimates of these premium costs, especially for individual optional coverage (median estimate of $8.38) because these estimates were provided by only two insurers. Administrative costs of the proposed mandate may be higher than other mandates because of the need to establish new contractual relationships with providers.

Administrative Expenses of Insurance Companies. In its survey of insurance providers, BOI does not ask companies to provide estimates of their administrative expenses associated with the proposed mandate. However, administrative expenses related to HB 237 may be higher than other mandates because health insurance has not typically covered hearing aids. Therefore, insurers would need to establish provider networks and negotiate reimbursement rates with providers of the newly covered services. However, hearing aids for children under three years of age are already covered under early intervention services. Thus, provider networks would not require a totally new set of providers.

Premium and Administrative Expenses of Policyholders. BOI annually surveys a sample of Virginia health insurers on the premium impact of proposed mandates. In 2008, the top 50 health insurance

providers in Virginia were surveyed. While an overall response rate to the survey of 84 percent (42 companies) was achieved, a relatively small number of insurance companies provided estimated monthly premiums costs for HB 237, particularly for individual coverage, which may limit the usefulness of the estimates. Five companies provided an estimate for individual policyholders, and 15 companies provided an estimate for group certificateholders. Contributing to the low response rate for individual coverage are those companies that do not serve the individual market. In addition to the relatively low response rate, the estimates varied widely with considerable differences between individual and group policyholders (Table 5).

Table 5: Estimated Monthly Premium Impact of HB 237

	# of Responses	Median Estimate	Highest Estimate	Lowest Estimate
Individual (standard)	5	$1.20	$3.00	$0.05
Individual (optional)	2	8.38	14.00	2.75
Group (standard)	15	0.42	4.39	0.20
Group (optional)	15	0.50	9.00	0.49

Source: Bureau of Insurance, Survey of Insurance Providers, 2008.

The median monthly premium estimates for the coverage in HB 237 as part of a standard individual option is $1.20 per month and the median estimate for standard group coverage is $0.42. One company provided an estimated total monthly premium cost of $313.50. Optional group coverage is estimated at $0.50. Only two insurers provided monthly estimates for individual optional coverage with the median being $8.38 per month.

Average Individual Insurance Premiums

In October 2007, the Virginia Bureau of Insurance reported an average annual health insurance premium (with current mandated benefits) for an individual contract, single coverage, of $2,929.58 or approximately $244 per month.

A premium increase of $0.05 to $3.00 for individual coverage would result in a monthly premium increase between 0.02 and 1.2 percent based on the estimated average monthly premium cost for a single coverage, individual contract, as defined in BOI's 2007 report on the financial impact of mandated health insurance benefits. The California Health Benefits Review Program reports an estimated premium increase of 0.007 to 0.013 percent in the group market and 0.039 percent in the individual market for coverage of hearing aids for children. Based on the estimates in the California report, a plan in the individual market with an existing premium of $244 per month might increase by $0.10 per month. Data are not available on the monthly premium estimate for group plans in Virginia, so it is not possible to calculate the percent increase in premium costs resulting from HB 237.

f. Total Cost of Health Care

The proposed mandate is not expected to have a significant impact on overall health-care costs in Virginia, and may reduce total overall costs. Costs to insurance companies will most likely increase as a result of providing increased coverage of hearing aids for children. However, establishing coverage for hearing aids for children has the potential to reduce cumulative lifetime costs such as those associated with special education and lost economic productivity. The National Education Association estimates that the average cost per special education student is an additional $9,369 per student per year. Further, the CDC estimates that 24.3 percent of economic costs associated with hearing loss costs are direct non-medical costs such as special education, and 68.9 percent of costs are indirect costs like lost economic productivity.

BALANCING MEDICAL, SOCIAL, AND FINANCIAL CONSIDERATIONS

Given the positive impact on public health and the potentially significant financial impact on families of obtaining hearing aids for their child, the proposed mandate is consistent with the role of health insurance. Further evidence that insurance coverage is appropriate is the fact that Medicaid and the State employee health plan provide coverage, and insurance frequently provides coverage for other means of amplification. Utilization of hearing aids for children would likely increase as a result of the mandate, as would the cost to health insurance companies. However, despite these increases, the overall societal and total health-care costs may decrease as a result of mandated coverage because the use of hearing aids has shown positive impacts on children's development in multiple areas, which may positively impact public health. The impact of a mandated offer of hearing aids for children is unclear.

a. Social Need/ Consistent With Role of Insurance

Based on the premise that the role of health insurance is to promote public health, encourage the use of preventive care, and provide protection from excessive financial expenses for unexpected illness or injury, HB 237 appears consistent with the role of insurance. The use of hearing aids addresses a medical need in children and positively impacts public health. Consistency with the role of insurance is further illustrated by Medicaid and State employee health plan coverage of hearing aids for children. In addition, health insurance coverage for surgical procedures such as cochlear implants or BAHA aids (which is provided more frequently than coverage for hearing aids) indicates that the health insurance industry recognizes the value of amplification and its role in addressing this need.

b. Need Versus Cost

The cost of hearing aids for children may create a financial hardship for some families and may be cost prohibitive in some cases, especially for middle income families. Health insurance coverage of hearing aids for children is not widely available and private and government programs that provide financial assistance for purchasing hearing aids primarily target children under three years of age and those at or below 300 percent FPL. While the cost to health insurance companies would likely increase as a result of mandated coverage of hearing aids for children (though the price of hearing aids is not expected to change), there is the potential to decrease cumulative social and health-care costs resulting from hearing loss, including costs associated with speech and language therapy, special education, and lost economic productivity.

A mandate would likely increase the use of hearing aids since a proportion of children who need hearing aids do not have them, and various studies have shown the positive impacts of intervention and amplification, including hearing aids, on speech and language development as well as social-emotional development. However, utilization and the impact on premiums could be decreased by covering hearing aids less frequently than the bill currently provides. Medical experts recommend that hearing aids for children be replaced every three to five years and HB 237 proposes coverage every two years. Another consideration is that setting a coverage cap in the mandate requires legislative action to modify the amount as medical costs change.

c. Mandated Offer

Mandated Offer

A mandated offer requires health insurers to offer for purchase the coverage described in the mandate for an additional fee.

It is unclear whether mandating that health insurers offer coverage of hearing aids for children would meet the need for coverage. The median estimate for optional group coverage is $0.57, so employers may purchase the coverage. The median estimate for optional individual is $8.38 so it is less likely many people purchasing individual coverage would select the option, though the reliability of the estimate for individual coverage is questionable due to the small number of estimates provided.

A mandate to offer coverage for hearing aids for children was evaluated by the California Health Benefits Review Program, which found that a mandated offer would likely have no impact on the cost or utilization of hearing aids. The evaluation reported that high premiums would likely result from optional coverage in order to compensate for adverse selection and therefore, very few employers and employees would chose to purchase the benefit.

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Appendix A

Statutory Authority for JLARC Evaluation of Proposed Mandated Health Insurance Benefits

§ 2.2-2503. Special Advisory Commission on Mandated Health Insurance Benefits; membership; terms; meetings; compensation and expenses; staff; chairman's executive summary.

A. The Special Advisory Commission on Mandated Health Insurance Benefits (the Commission) is established as an advisory commission within the meaning of § 2.2-2100, in the executive branch of state government. The purpose of the Commission shall be to advise the Governor and the General Assembly on the social and financial impact of current and proposed mandated benefits and providers, in the manner set forth in this article.

B. The Commission shall consist of 18 members that include six legislative members, 10 nonlegislative citizen members, and two ex officio members as follows: one member of the Senate Committee on Education and Health and one member of the Senate Committee on Commerce and Labor appointed by the Senate Committee on Rules; two members of the House Committee on Health, Welfare and Institutions and two members of the House Committee on Commerce and Labor appointed by the Speaker of the House of Delegates in accordance with the principles of proportional representation contained in the Rules of the House of Delegates; 10 nonlegislative citizen members appointed by the Governor that include one physician, one chief executive officer of a general acute care hospital, one allied health professional, one representative of small business, one representative of a major industry, one expert in the field of medical ethics, two representatives of the accident and health insurance industry, and two nonlegislative citizen members; and the State Commissioner of Health and the State Commissioner of Insurance, or their designees, who shall serve as ex officio nonvoting members.

C. All nonlegislative citizen members shall be appointed for terms of four years. Legislative and ex officio members shall serve terms coincident with their terms of office. All members may be reappointed. However, no House member shall serve more than four consecutive two-year terms, no Senate member shall serve more than two consecutive four-year terms, and no nonlegislative citizen member shall serve more than two consecutive four-year terms. Vacancies occurring other than by expiration of a term shall be filled for the unexpired term. Vacancies shall be filled in the manner as the original appointments. The remainder of any term to which a member is appointed to fill a vacancy shall not constitute a term in determining the member's eligibility for reappointment.

D. The Commission shall meet at the request of the chairman, the majority of the voting members or the Governor. The Commission shall elect a chairman and a vice-chairman, as determined by the membership. A majority of the members of the Commission shall constitute a quorum.

E. Legislative members of the Commission shall receive such compensation as provided in § 30-19.12, and nonlegislative citizen members shall receive such compensation for the performance of their duties as provided in § 2.2-2813. All members shall be reimbursed for all reasonable and

necessary expenses incurred in the performance of their duties as provided in §§ 2.2-2813 and 2.2-2825. Funding for the compensation and costs of expenses of the members shall be provided by the State Corporation Commission.

F. The Bureau of Insurance, the State Health Department, and the Joint Legislative Audit and Review Commission and such other state agencies as may be considered appropriate by the Commission shall provide staff assistance to the Commission. The Joint Legislative Audit and Review Commission shall conduct assessments, analyses, and evaluations of proposed mandated health insurance benefits and mandated providers as provided in subsection D of § 30-58.1, and report its findings with respect to the proposed mandates to the Commission.

G. The chairman of the Commission shall submit to the Governor and the General Assembly an annual executive summary of the interim activity and work of the Commission no later than the first day of each regular session of the General Assembly. The executive summary shall be submitted as provided in the procedures of the Division of Legislative Automated Systems for the processing of legislative documents and reports and shall be posted on the General Assembly's website.

§ 30-58.1. Powers and duties of Commission.

The Commission shall have the following powers and duties:

A. Make performance reviews of operations of state agencies to ascertain that sums appropriated have been, or are being expended for the purposes for which such appropriations were made and to evaluate the effectiveness of programs in accomplishing legislative intent;

B. Study on a continuing basis the operations, practices and duties of state agencies, as they relate to efficiency in the utilization of space, personnel, equipment and facilities;

C. Make such special studies and reports of the operations and functions of state agencies as it deems appropriate and as may be requested by the General Assembly;

D. Assess, analyze, and evaluate the social and economic costs and benefits of any proposed mandated health insurance benefit or mandated provider, including, but not limited to, the mandate's predicted effect on health care coverage premiums and related costs, net costs or savings to the health care system, and other relevant issues, and report its findings with respect to the proposed mandate to the Special Advisory Commission on Mandated Health Insurance Benefits; and

E. Make such reports on its findings and recommendations at such time and in such manner as the Commission deems proper submitting same to the agencies concerned, to the Governor and to the General Assembly. Such reports as are submitted shall relate to the following matters:

1. Ways in which the agencies may operate more economically and efficiently;

2. Ways in which agencies can provide better services to the Commonwealth and to the people; and

3. Areas in which functions of state agencies are duplicative, overlapping, or failing to accomplish legislative objectives or for any other reason should be redefined or redistributed.

Appendix B

Proposed Mandated Benefit Requiring Coverage of Hearing Aids for Children

HOUSE BILL NO. 237
Offered January 9, 2008
Prefiled December 28, 2007

A BILL to amend and reenact § 38.2-4319 of the Code of Virginia and to amend the Code of Virginia by adding a section numbered 38.2-3418.15, relating to health insurance coverage for hearing aids for children.

Patrons—Cosgrove; Senator: Blevins

Referred to Committee on Commerce and Labor

Be it enacted by the General Assembly of Virginia:

1. That § 38.2-4319 of the Code of Virginia is amended and reenacted and that the Code of Virginia is amended by adding a section numbered 38.2-3418.15 as follows:

§ 38.2-3418.15. Coverage for hearing aids and related services.

A. Notwithstanding the provisions of § 38.2-3419, each insurer proposing to issue individual or group accident and sickness insurance policies providing hospital, medical and surgical, or major medical coverage on an expense-incurred basis; each corporation providing individual or group accident and sickness subscription contracts; and each health maintenance organization providing a health care plan for health care services shall provide coverage for hearing aids and related services for children from birth to age 18 under any policy, contract, or plan delivered, issued for delivery or renewed in the Commonwealth on and after July 1, 2008. The coverage shall include payment of the cost of one hearing aid per hearing-impaired ear every 24 months, up to $1,500 per hearing aid. The insured may choose a higher-priced hearing aid and may pay the difference in cost above $1,500, with no financial or contractual penalty to the insured or to the provider of the hearing aid.

B. No insurer, corporation, or health maintenance organization shall impose upon any person receiving benefits pursuant to this section any copayment or fee, and no condition may be applied to the person that is not equally imposed upon all individuals in the same benefit category.

C. For the purposes of this section:

"Hearing aid" means any wearable, nondisposable instrument or device designed or offered to aid or compensate for impaired human hearing and any parts, attachments, or accessories, including earmolds, but excluding batteries and cords. Hearing aids are not to be considered durable medical equipment.

"Related services" includes earmolds, initial batteries, and other necessary equipment, maintenance, and adaptation training.

D. Coverage shall be available under this section only for services and equipment prescribed by a certified audiologist licensed to prescribe such services or equipment under Chapter 26 (§ 54.1-2600 et seq.) of Title 54.1.

E. The provisions of this section shall not apply to short-term travel, accident-only, limited or specified disease policies, or contracts designed for issuance to persons eligible for coverage under Title XVIII of the Social Security Act, known as Medicare, or any other similar coverage under state or federal governmental plans or to short-term nonrenewable policies of not more than six months' duration.

§ 38.2-4319. Statutory construction and relationship to other laws.

A. No provisions of this title except this chapter and, insofar as they are not inconsistent with this chapter, §§ 38.2-100, 38.2-136, 38.2-200, 38.2-203, 38.2-209 through 38.2-213, 38.2-216, 38.2-218 through 38.2-225, 38.2-229, 38.2-232, 38.2-305, 38.2-316, 38.2-322, 38.2-400, 38.2-402 through 38.2-413, 38.2-500 through 38.2-515, 38.2-600 through 38.2-620, Chapter 9 (§ 38.2-900 et seq.), §§ 38.2-1016.1 through 38.2-1023, 38.2-1057, Article 2 (§ 38.2-1306.2 et seq.), § 38.2-1306.1, § 38.2-1315.1, Articles 3.1 (§ 38.2-1316.1 et seq.), 4 (§ 38.2-1317 et seq.) and 5 (§ 38.2-1322 et seq.) of Chapter 13, Articles 1 (§ 38.2-1400 et seq.) and 2 (§ 38.2-1412 et seq.) of Chapter 14, §§ 38.2-1800 through 38.2-1836, 38.2-3401, 38.2-3405, 38.2-3405.1, 38.2-3407.2 through 38.2-3407.6:1, 38.2-3407.9 through 38.2-3407.16, 38.2-3411.2, 38.2-3411.3, 38.2-3411.4, 38.2-3412.1:01, 38.2-3414.1, 38.2-3418.1 through 38.2-3418.14 *38.2-3418.15*, 38.2-3419.1, 38.2-3430.1 through 38.2-3437, 38.2-3500, subdivision 13 of § 38.2-3503, subdivision 8 of § 38.2-3504, §§ 38.2-3514.1, 38.2-3514.2, 38.2-3522.1 through 38.2-3523.4, 38.2-3525, 38.2-3540.1, 38.2-3542, 38.2-3543.2, Article 5 (§ 38.2-3551 et seq.) of Chapter 35, Chapter 52 (§ 38.2-5200 et seq.), Chapter 55 (§ 38.2-5500 et seq.), Chapter 58 (§ 38.2-5800 et seq.) and § 38.2-5903 of this title shall be applicable to any health maintenance organization granted a license under this chapter. This chapter shall not apply to an insurer or health services plan licensed and regulated in conformance with the insurance laws or Chapter 42 (§ 38.2-4200 et seq.) of this title except with respect to the activities of its health maintenance organization.

B. For plans administered by the Department of Medical Assistance Services that provide benefits pursuant to Title XIX or Title XXI of the Social Security Act, as amended, no provisions of this title except this chapter and, insofar as they are not inconsistent with this chapter, §§ 38.2-100, 38.2-136, 38.2-200, 38.2-203, 38.2-209 through 38.2-213, 38.2-216, 38.2-218 through 38.2-225, 38.2-229, 38.2-232, 38.2-322, 38.2-400, 38.2-402 through 38.2-413, 38.2-500 through 38.2-515, 38.2-600 through 38.2-620, Chapter 9 (§ 38.2-900 et seq.), §§ 38.2-1016.1 through 38.2-1023, 38.2-1057, § 38.2-1306.1, Article 2 (§ 38.2-1306.2 et seq.), § 38.2-1315.1, Articles 3.1 (§ 38.2-1316.1 et seq.), 4 (§ 38.2-1317 et seq.) and 5 (§ 38.2-1322 et seq.) of Chapter 13, Articles 1 (§ 38.2-1400 et seq.) and 2 (§ 38.2-1412 et seq.) of Chapter 14, §§ 38.2-3401, 38.2-3405, 38.2-3407.2 through 38.2-3407.5, 38.2-3407.6 and 38.2-3407.6:1, 38.2-3407.9, 38.2-3407.9:01, and 38.2-3407.9:02, subdivisions 1, 2, and 3 of subsection F of § 38.2-3407.10, 38.2-3407.11, 38.2-3407.11:3, 38.2-3407.13, 38.2-3407.13:1, and 38.2-3407.14, 38.2-3411.2, 38.2-3418.1, 38.2-3418.2, 38.2-3419.1, 38.2-3430.1 through 38.2-3437, 38.2-3500, subdivision 13 of § 38.2-3503, subdivision 8 of § 38.2-3504, §§ 38.2-3514.1, 38.2-3514.2, 38.2-3522.1 through 38.2-3523.4, 38.2-3525, 38.2-3540.1, 38.2-3542, 38.2-3543.2, Chapter 52 (§ 38.2-5200 et seq.), Chapter 55 (§ 38.2-5500 et seq.), Chapter 58 (§ 38.2-5800 et seq.) and § 38.2-5903 shall be applicable to any health maintenance organization granted a license under this chapter. This chapter shall not apply to an insurer or health services plan licensed and regulated in conformance with the insurance laws or Chapter 42 (§ 38.2-4200 et seq.) of this title except with respect to the activities of its health maintenance organization.

C. Solicitation of enrollees by a licensed health maintenance organization or by its representatives shall not be construed to violate any provisions of law relating to solicitation or advertising by health professionals.

D. A licensed health maintenance organization shall not be deemed to be engaged in the unlawful practice of medicine. All health care providers associated with a health maintenance organization shall be subject to all provisions of law.

E. Notwithstanding the definition of an eligible employee as set forth in § 38.2-3431, a health maintenance organization providing health care plans pursuant to § 38.2-3431 shall not be required to offer coverage to or accept applications from an employee who does not reside within the health maintenance organization's service area.

F. For purposes of applying this section, "insurer" when used in a section cited in subsections A and B of this section shall be construed to mean and include "health maintenance organizations" unless the section cited clearly applies to health maintenance organizations without such construction.

Appendix C

Evaluation Topic Areas and Criteria for Assessing Proposed Mandated Health Insurance Benefits

Topic Area	Criteria
1. Medical Efficacy	
a. Medical Efficacy of Benefit	The contribution of the benefit to the quality of patient care and the health status of the population, including the results of any clinical research, especially randomized clinical trials, demonstrating the medical efficacy of the treatment or service compared to alternatives or not providing the treatment or service.
b. Medical Effectiveness of Benefit *JLARC Criteria**	The contribution of the benefit to patient health based on how well the intervention works under the usual conditions of clinical practice. Medical effectiveness is not based on testing in a rigid, optimal protocol, but rather a more flexible intervention that is often used in broader populations.
c. Medical Efficacy of Provider	If the legislation seeks to mandate coverage of an additional class of practitioners: 1) The results of any professionally acceptable research, especially randomized clinical trials, demonstrating the medical results achieved by the additional class of practitioners relative to those already covered. 2) The methods of the appropriate professional organization to assure clinical proficiency.
d. Medical Effectiveness of Provider *JLARC Criteria**	The contribution of the practitioner to patient health based on how well the practitioner's interventions work under the usual conditions of clinical practice. Medical effectiveness is not based on testing in a rigid, optimal protocol, but rather more flexible interventions that are often used in broader populations.
2. Social Impact	
a. Utilization of Treatment	The extent to which the treatment or service is generally utilized by a significant portion of the population.
b. Availability of Coverage	The extent to which insurance coverage for the treatment or service is already generally available.
c. Availability of Treatment *JLARC Criteria**	The extent to which the treatment or service is generally available to residents throughout the state.
d. Availability of Treatment Without Coverage	If coverage is not generally available, the extent to which the lack of coverage results in persons being unable to obtain necessary health care treatments.
e. Financial Hardship	If the coverage is not generally available, the extent to which the lack of coverage result in unreasonable financial hardship on those persons needing treatment.
f. Prevalence/Incidence of Condition	The level of public demand for the treatment or service.
g. Demand for Coverage	The level of public demand and the level of demand from providers for individual or group insurance coverage of the treatment or service.

h. Labor Union Coverage	The level of interest of collective bargaining organizations in negotiating privately for inclusion of this coverage in group contracts.
i. State Agency Findings	Any relevant findings of the state health planning agency or the appropriate health system agency relating to the social impact of the mandated benefit.
j. Public Payer Coverage *JLARC Criteria**	The extent to which the benefit is covered by public payers, in particular Medicaid and Medicare.
k. Public Health Impact *JLARC Criteria**	Potential public health impacts of mandating the benefit.
3. Financial Impact	
a. Effect on Cost of Treatment	The extent to which the proposed insurance coverage would increase or decrease the cost or treatment of service over the next five years.
b. Change in Utilization	The extent to which the proposed insurance coverage might increase the appropriate or inappropriate use of the treatment or service.
c. Serves as an Alternative	The extent to which the mandated treatment or service might serve as an alternative for more expensive or less expensive treatment or service.
d. Impact on Providers	The extent to which the insurance coverage may affect the number and types of providers of the mandated treatment or service over the next five years.
e. Administrative and Premium Costs	The extent to which insurance coverage might be expected to increase or decrease the administrative expenses of insurance companies and the premium and administrative expenses of policyholders.
f. Total Cost of Health Care	The impact of coverage on the total cost of health care.
4. Effects of Balancing Medical, Social, and Financial Considerations	
a. Social Need/Consistent with Role of Insurance	The extent to which the benefit addresses a medical or a broader social need and whether it is consistent with the role of health insurance.
b. Need Versus Cost	The extent to which the need for coverage outweighs the costs of mandating the benefit for all policyholders.
c. Mandated Option	The extent to which the need for coverage may be solved by mandating the availability of the coverage as an option for policy holders.

*Denotes additional criteria added by JLARC staff to criteria adopted by the Special Advisory Commission on Mandated Health Insurance Benefits.

Source: Special Advisory Commission on Mandated Health Insurance Benefits and JLARC staff analysis.

Appendix D

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Joint Legislative Audit and Review Commission
Suite 1100
General Assembly Building
Capitol Square
Richmond, Virginia 23219
804-786-1258 Fax 804-371-0101
http://jlarc.state.va.us