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Deanna D. Smith

Date

10/21/03

2003 SENATE HUMAN SERVICES

SB 2257

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2003 SENATE STANDING COMMITTEE MINUTES

BILL/RESOLUTION NO. SB 2257

Senate Human Services Committee

☐ Conference Committee

Hearing Date January 27, 2003

Tape Number	Side A	Side B	Meter #
1		X	2388 - end
2	X		0 - 3348
Committee Clerk Signature <i>Donna Kramer</i>			

Minutes:

SENATOR JUDY LEE opened the public hearing on SB 2257 to provide for infant hearing detection and intervention. A fiscal note is attached.

SENATOR KEN SVEDJAN of Grand Forks introduced the bill. (Meter # 2425 - 2650)

BERNARD HOGGARTH, pediatrician with the Altru Health System in Grand Forks, testified in support of the bill. (Written testimony attached) (Meter # 2746 - 3384)

SENATOR LEE: Question asking if all hospitals are doing the screening? Concern about parents not getting their children screened. (Meter # 3390 - 3658)

SENATOR KAREN KREBSBACH, of Minot, testified in behalf of the bill as one of the sponsors and giving support. (Meter #3689 - 3790)

DR. LARRY G. MARTIN, audiologist with Trinity Health in Minot, testified in support of the bill. (Written testimony provided). (Meter # 3840 - 4350)

SENATOR LEE: Question about babies born at home. (Meter #4343 - 4455)

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Senate Human Services Committee
Bill/Resolution Number SB 2257
Hearing Date January 27, 2003

SENATOR ERBELE: Asked for description of screening test. (Meter #4470 - 4597)

SENATOR POLOVITZ: Question about premature babies. Tested prior to discharge. (Meter # 4681 - 4960)

ERIC R. LUNN, MD, a pediatrician practicing in Grand Forks and also an Associate Professor of Pediatrics and Assistant Dean at the University of ND School of Medicine & Health Services, left written testimony in support as he was unable to testify in person. (Copy of testimony attached)

MANDI HOFFER testified for DONENE FEIST, from Edgeley, in favor of the bill. Mrs. Feist has a child who has been diagnosed with a hearing impairment. (Written testimony provided)

ROBERT M. WENTZ, MD, a general pediatrician working at Q & R Clinic in Bismarck, testified in favor. (Written testimony attached)

DR. STEPHANIE MARTIN, audiologist and speech language pathologist with ND Center for Persons with Disabilities at Minot State University, testified in favor of the bill. (Tape 1, Side B, Meter # 6190 - end and Tape 2, Side A, 0 - 945) (Brochure enclosed on hearing testing for infants, Early Hearing Detection and Intervention information sheet and Newborn Hearing Screening information sheet)

Opposed:

ARNOLD THOMAS, President of the ND Healthcare Association, testified in opposition to SB 2257. He stated the bill is not needed. Hospitals are supporting early identification of infants. Bill mandates what has already been done. He also stated the focus is on babies born in the hospitals and secondary followups. What they have difficulty with is saying the track we are

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Deanna Wall 12/21/03
Operator's signature Date

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Senate Human Services Committee
Bill/Resolution Number SB 2257
Hearing Date January 27, 2003

going in now that would mandate testing would produce any better referral results. (Written testimony attached) (Meter # 1000 - 1860)

ROD ST. AUBYN, Director of Government Relations for BCBS, testified in opposition.

(Written testimony) He stated that while this bill does not have a direct impact to insurance reimbursement, it will have a long term indirect impact. (Meter # 1890 - 2625)

TAMMY GALLUP MILLNER, Unit Director of Children's Special Health Services within Medical Services, for the Department of Human Services, testified. She stated the Department acknowledges the importance of a coordinated, statewide early hearing detection and intervention (EHDI) program in our state but has taken a neutral stance on this bill as oversight responsibilities for the program were not included in the Governor's budget. (Written testimony) (Meter # 2704 - 2930)

SENATOR LEE: Questioned Steffi Martin as to high risk children being compared to all children being screened ... what the accuracy is?

DR. STEPHANIE MARTIN: Approximately 50% of the children with significant hearing loss have no known risk factors whatsoever. Nothing in their history, nothing in the birth delivery ... we will miss those children. There are very few false positives than the true. No parental resistance following screening. (Meter # 2968 - 3200)

BERNARD HOGGARTH: From the genetic point of view, tracking is so important. New genes discovered. (Meter # 3202 - 3298)

ROD ST. AUBYN: Will provide scientific results from the BCBS.

Public Hearing closed at this time. (Meter #3348)

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Diana Walsh
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2003 SENATE STANDING COMMITTEE MINUTES

BILL/RESOLUTION NO. SB 2257

Senate Human Services Committee

☐ Conference Committee

Hearing Date February 5, 2003

Tape Number	Side A	Side B	Meter #
1	X		5200 - 6055
Committee Clerk Signature <i>Donna Kremes</i>			

Minutes:

SENATOR JUDY LEE reopened the committee discussion on SB 2257 relating to hearing detection and intervention. She stated we had heard a lot of testimony about infant hearing screening - how important and valuable it is. There is a fiscal note attached.

The point has come out through this is that this work is currently being done. Senator Lee said she was not sure that this needed to be put into statute. Interested in hearing committee's thoughts on this.

Continued discussion about when it is being done ... with newborns. There is a hospital tracking system. Why the bill came to us. (Meter #5534 - 5885)

SENATOR BROWN made motion to DO NOT PASS.

SENATOR ERBELE seconded the motion.

Roll call was read. 5 yeas 1 nay.

SENATOR POLOVITZ to be the carrier. (Meter # 6055)

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10/21/03
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FISCAL NOTE
Requested by Legislative Council
01/21/2003

Bill/Resolution No.: SB 2257

1A. State fiscal effect: Identify the state fiscal effect and the fiscal effect on agency appropriations compared to funding levels and appropriations anticipated under current law.

	2001-2003 Biennium		2003-2005 Biennium		2005-2007 Biennium	
	General Fund	Other Funds	General Fund	Other Funds	General Fund	Other Funds
Revenues				\$40,874		\$38,024
Expenditures			\$30,834	\$40,874	\$28,684	\$38,024
Appropriations			\$30,834	\$40,874	\$28,684	\$38,024

1B. County, city, and school district fiscal effect: Identify the fiscal effect on the appropriate political subdivision.

2001-2003 Biennium			2003-2005 Biennium			2005-2007 Biennium		
Counties	Cities	School Districts	Counties	Cities	School Districts	Counties	Cities	School Districts
\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

2. Narrative: Identify the aspects of the measure which cause fiscal impact and include any comments relevant to your analysis.

This bill was introduced to implement an infant hearing detection and intervention program and limited followup services for infants with a known or suspected hearing loss.

3. State fiscal effect detail: For information shown under state fiscal effect in 1A, please:

A. Revenues: Explain the revenue amounts. Provide detail, when appropriate, for each revenue type and fund affected and any amounts included in the executive budget.

The Department will access Title V, Maternal and Child Health Services Block Grant funds which require a 43% match.

B. Expenditures: Explain the expenditure amounts. Provide detail, when appropriate, for each agency, line item, and fund affected and the number of FTE positions affected.

The costs incurred to implement and maintain this program involve the installation and maintenance of the web-based newborn screening information management system along with the responsibility for the limited followups, data verification and other operating costs. All costs will be incurred under the operating line item.

C. Appropriations: Explain the appropriation amounts. Provide detail, when appropriate, of the effect on the biennial appropriation for each agency and fund affected and any amounts included in the executive budget. Indicate the relationship between the amounts shown for expenditures and appropriations.

The funds to implement the program provided in this bill is not included in the Governor's budget. If passed the Department's appropriation would need to be increased for the 2003-2005 biennium by \$71,708 in total, General funds of \$30,834.

Name:	Brenda M. Welsz	Agency:	Department of Human Services
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Brenda M. Welsz
Operator's Signature

10/21/03
Date

Phone Number: 328-2397

Date Prepared: 01/24/2003

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12/21/03
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Date: 02-05-03
Roll Call Vote #: (1)

2003 SENATE STANDING COMMITTEE ROLL CALL VOTES
BILL/RESOLUTION NO. 2257

Senate Human Services Committee

☐ Check here for Conference Committee

Legislative Council Amendment Number _____

Action Taken Do Not Pass

Motion Made By Sen. Brown Seconded By Sen. Erbele

Senators	Yes	No	Senators	Yes	No
Senator Judy Lee - Chairman	✓				
Senator Richard Brown - V. Chair.	✓				
Senator Robert S. Erbele	✓				
Senator Tom Fischer	✓				
Senator April Fairfield		✓			
Senator Michael Polovitz	✓				

Total (Yes) 5 No 1

Absent _____

Floor Assignment Sen. Polovitz

If the vote is on an amendment, briefly indicate intent:

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Deanna Waller

10/21/03
Date

REPORT OF STANDING COMMITTEE (410)
February 5, 2003 1:29 p.m.

Module No: SR-22-1735
Carrier: Polovitz
Insert LC: . Title: .

REPORT OF STANDING COMMITTEE
SB 2257: Human Services Committee (Sen. J. Lee, Chairman) recommends DO NOT
PASS (5 YEAS, 1 NAY, 0 ABSENT AND NOT VOTING). SB 2257 was placed on the
Eleventh order on the calendar.

(2) DESK, (3) COMM

Page No. 1

SR-22-1735

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2003 TESTIMONY

SB 2257

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**TESTIMONY BEFORE THE SENATE HUMAN SERVICES COMMITTEE
REGARDING SENATE BILL 2257
JANUARY 27, 2003**

Chairman Lee and members of the committee, I am Tammy Gallup Millner, Unit Director of Children's Special Health Services within Medical Services, for the Department of Human Services. I appear before you to provide information related to this bill.

Children with congenital hearing loss face delayed language, speech, and learning development that often leads to reading problems, educational achievement lags and behavioral problems. Ultimately, the costs for late detection and intervention of hearing loss are borne by our schools, the families, and these children.

In 2000, the North Dakota Center for Persons with Disabilities received federal funding to implement newborn hearing screening in our state. Through the grant, all birthing hospitals received funding to purchase hearing screening equipment, training on the use of the equipment, and software to track infants that have been screened. The number of infants screened in ND has risen throughout the life of the grant. The national goal is universal screening of all babies.

Children's Special Health Services staff have participated on the grants management team for the First Sounds project since its inception and have the background needed to oversee a statewide program, if funded. As outlined in the fiscal note, a coordinated, statewide program could be efficiently administered using existing FTE's with the help of a contract consultant (audiologist) and support staff. Maintenance of a newborn screening information management system would also be required to track infants screened in the hospital as well as those requiring re-screening or diagnostic exams by audiologists in the state's

pediatric referral centers. This system would allow us to determine the number of infants with a hearing loss in the state and to assure families that have infants with a hearing loss are linked to appropriate early intervention services.

The Department acknowledges the importance of a coordinated, statewide early hearing detection and intervention (EHDI) program in our state but has taken a neutral stance on this bill as oversight responsibilities for the program were not included in the Governor's budget.

This concludes my testimony. I would be happy to respond to any questions you may have.

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Testimony on SB 2257
Senate Human Services Committee
January 27, 2003

Madam Chair and committee members, for the record I am Rod St. Aubyn, Director of Government Relations for Blue Cross Blue Shield of North Dakota.

I appear today to oppose this bill. While this does not have a direct impact to insurance reimbursement, it **will** have a long term indirect impact. As you may know, BCBSND reimburses hospitals based on a specific DRG (diagnostic related group). For example, for the normal birth of a child, we reimburse the hospital a specific amount. It is up to the doctor to determine whether that patient remains in the hospital one day or three days. The reimbursement is based on the DRG. The reimbursement takes into account all normal services which would be expected. These DRG reimbursements are evaluated periodically to ensure that all anticipated services are accounted for within that DRG. If this bill is approved, we would anticipate that providers would insist that the DRG reimbursement be increased to include the added cost for this required procedure.

BCBSND's medical management team utilizes the recommendations of the U.S. Preventive Services Task Force (USPSTF) in defining our medical policies. In regards to this proposed service I offer the following new recommendation from the USPSTF:

"The USPSTF concludes the evidence is insufficient to recommend for or against routine screening of newborns for hearing loss during the postpartum hospitalization. **I recommendation.**"

The USPSTF grades its recommendations according to one of five classifications (A, B, C, D, or I), reflecting the strength of evidence and magnitude of net benefit (benefits minus harms).

A. The USPSTF strongly recommends that clinicians routinely provide [the service] to eligible patients. (The USPSTF found good evidence that [the service] improves important health outcomes and concludes that benefits substantially outweigh harms.)

B. The USPSTF recommends that clinicians routinely provide [the service] to eligible patients. (The USPSTF found at least fair evidence that [the service] improves important health outcomes and concludes that benefits outweigh harms.)

C. The USPSTF makes no recommendation for or against routine provision of [the service]. (The USPSTF found at least fair evidence that [the service] can improve health outcomes but concludes that the balance of benefits and harms is too close to justify a general recommendation.)

D. The USPSTF recommends against routinely providing [the service] to asymptomatic patients. (The USPSTF found at least fair evidence that [the service] is ineffective or that harms outweigh benefits.)

I. The USPSTF concludes that the evidence is insufficient to recommend for or against routinely providing [the service]. (Evidence that [the service] is effective is lacking, of poor quality, or conflicting and that the balance of benefits and harms cannot be determined.)

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They go on to say:

"The USPSTF found good evidence that newborn hearing screening leads to earlier identification and treatment of infants with hearing loss. However, evidence to determine whether earlier treatment resulting from screening leads to clinically important improvement in speech and language skills at age 3 years or beyond is inconclusive because of the design limitations in existing studies.

Although earlier identification and intervention may improve the quality of life for the infant and family during the first year of life, and prevent regret by the family over delayed diagnosis of hearing loss, the USPSTF found few data addressing these benefits. The USPSTF could not determine from existing studies whether these potential benefits outweigh the potential harms of false-positive tests that many low-risk infants would experience following universal screening in both high- and low-risk groups.

The USPSTF found good evidence that the prevalence of hearing loss in infants in the newborn intensive care unit (NICU) and those with other specific risk factors (see *Clinical Considerations*) is 10 to 20 times higher than the prevalence of hearing loss in the general population of newborns. Both the yield of screening and the proportion of true positive results will be substantially higher when screening is targeted at these high-risk infants, but selective screening programs typically do not identify all infants with risk factors. Evidence that early identification and intervention for hearing loss improves speech, language, or auditory outcomes in high-risk populations is also limited."

The USPSTF research has shown that the prevalence of sensorineural hearing loss (SNHL) is quite low, and since "the prevalence of SNHL is low, there are many more false positives than true positives, especially in low-risk populations. Overall, 6.7 percent of infants who failed in-hospital screening tests were eventually diagnosed with bilateral SNHL in the best study of newborn hearing screening; among those without risk factors for hearing loss, only 2 percent of those failing such screening tests were later found to have SNHL."

If you would like more details on the findings on this subject by the USPSTF, I would suggest that you look at their web site at www.ahrp.gov/clinic/3rduspstf/newbornscreen/newhearr.htm. At a time when health care costs continue to escalate and Medicare reimbursements continue to decrease, this is not a time to add to those increasing costs for our struggling health care facilities. I urge you to defeat this bill.

Madam Chair, I would be willing to answer any questions the committee may have.

Rod St. Aubyn
Director of Government Relations
Blue Cross Blue Shield of North Dakota

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Date

SENATE BILL NO. 2257

Testimony by
Arnold R. Thomas, President
North Dakota Healthcare Association
January 27, 2003

Madame Chairman, members of the Senate Health and Human Services Committee:

I am Arnold R. Thomas, President of the North Dakota Healthcare Association. I am here today to oppose Senate Bill No. 2257.

The bill has a noble purpose – that of testing newborns for hearing impairments and tracking those children at risk for hearing loss.

The reason we oppose this bill is because it is not needed.

Hospitals in this state have supported the early identification of infants at risk for hearing loss. Hospitals have worked with groups such as "First Sounds" to ensure the availability of basic testing technology and personnel trained in its use. All of the hospitals offering birthing services have adopted protocols that govern the use of this assessment as well as recommendations for follow-ups by hearing specialists.

Hospitals have adopted a common tracking system. This system maintains screening information on infants who have had their hearing tested and it can track rescreenings and additional diagnostic tests.

We are already providing the service that this bill attempts to mandate.

While we support use of detailed tracking systems, the reality is that no bill will result in broader results than we already have. Tracking data is dependent not only on participation by the medical community but also participation by the parents. What we have found is that sometimes parents move. Sometimes parents find that travel to referral centers is impractical. Sometimes parents have to deal with the attendant costs of travel. Other times parents make decisions regarding the importance of this versus other things going on in their lives. Neither the hospitals, the medical community, nor any legislation can force parents to participate against their will or better judgment. The range of choice will always be the weakness in a mandated reporting system.

Deanna D. Hall
Operator's Signature

10/21/03
Date

We also have other concerns with this bill. Right now, the tracking system is supported by a grant. We have no way of knowing how long the grant funds will remain available or at what point this program will become a burden on the state general fund.

We also have a concern about the authority being given to the department with respect to approving the screening tests. Right now, the technology available for screening of newborns is still evolving. So is medical judgment about this issue. To date, there are still professional differences of opinion regarding the use of routine, universal screening for all newborns. There are questions about the sensitivity and specificity of the tests, and there is concern about the very real possibility of misclassifications. Mandating a medical practice when so many questions still exist is not good public policy under any circumstances.

Determining which tests should be instituted and at what point are judgments that should be made by physicians caring for their patients and not by a state agency. This bill gives the department broad authority for selecting tests. Nothing is included about the criteria for test selection, about physician involvement in the selection process, about the reconciliation of differing professional opinions and judgments regarding the merits and usefulness of such testing and tracking. By selecting a specific test, the department opens up a Pandora's box with respect to equipment that must be purchased in order to provide the hearing test to newborns. What happens if a facility does not purchase that particular equipment? Will the department require the facility to discontinue its birthing services?

In conclusion, this bill mandates that which is already being done. It does nothing to strengthen the existing testing and tracking system. It raises concerns regarding the future funding of this system, and it adds confusion where none now exists.

On one hand, this bill mandates testing and tracking. On the other hand, it provides that the mandate may be overridden by a physician's judgment or by a parent's judgment. If that is the case, then we don't need the mandate and we respectfully don't need this bill.

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Newborn Hearing Screening



First Sounds of North Dakota EARLY HEARING DETECTION AND INTERVENTION (EDHI)

The North Dakota Center for Persons with Disabilities (NDCPD) at Minot State University in cooperation with Children's Special Services of the North Dakota Department of Human Services obtained federal funding in April, 2000 to begin the *First Sounds* Project.

The Goals of the *First Sounds* Project are:

- Screen all newborns prior to hospital discharge or by one month of age
- Refer for audiologic/diagnostic assessment prior to three months of age
- Refer for intervention services prior to six months of age

The project is assisting participating hospitals in purchasing the screening equipment of their choice as well as providing the hospital staff with training on how to conduct the screenings, how to record and report screening data to a statewide tracking system, and how to make appropriate referrals. The grant will end on March 31, 2004.

Facts on Infant Hearing Loss:

1. Frequency of Hearing Loss

- Hearing loss occurs more frequently than other screened newborn conditions
 - 0.10 in 1000 births have phenylketonuria (PKU)
 - 0.25 in 1000 births have Hypothyroidism
 - 0.20 in 1000 births have Sickle Cell
- Approximately 27 ND infants are born annually with permanent hearing loss in both ears (3 in 1000 births)
- Approximately 18 ND infants are born annually with a minimal hearing loss in one or both ears (2 in 1000 births)
- In total, approximately 45 North Dakota infants out of 8,846 annual births are born with a hearing loss
- 50% of children identified with hearing loss have no known risk factors

2. Language Development

- The average age of identification of hearing loss without newborn hearing screening is 14 months
- Studies have shown when hearing loss is not detected in the first 6 months of life, an important time frame for developing speech and language skills has passed and a significant delay may occur
- When speech and language development is delayed, academic and social skills are adversely affected
- Any degree of hearing loss effects language and school performance
- Children with a hearing loss in one ear are ten times as likely to repeat a grade as compared to children with normal hearing in both ears

July 2002

Information Sheet for North Dakota Legislature

First Sounds 800-233-1737

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3. Technology

- There are two basic methods of technology to screen hearing in newborns that are efficient, reliable, and cost effective:
 - **Evoked Otoacoustic Emissions (OAE):** Tests inner ear function through the use of a small probe microphone placed in the outer ear canal of the baby. A sound is sent from the probe to the inner ear, and the microphone records the sounds sent back.
 - **Auditory Brainstem Evoked Response (ABR):** Tests brain wave patterns using miniature headphones and sensors on the head, neck, and shoulder. A clicking sound is used to see how the baby's entire hearing pathway reacts to the sound.

4. Benefits of Early Detection

- Infants identified with hearing loss may be fit with hearing amplification as young as four weeks of age
- Research has found treatment has the best results when infant hearing loss is identified and intervention begins before the child reaches six months of age
- Early identification and intervention results include:
 - Dramatic improvement in the child's communication skills
 - Improvement in language development, cognitive development, auditory development, vocabulary acquisition and speech development
 - Improvement in school achievement, self-esteem and social/emotional development

5. ND State programs

- All birthing hospitals in North Dakota participate in some form of infant hearing screening
- 70% of the babies born in ND are being screened (as of May 2002)
- Three hospitals in the state are screening at least 90% of their births:
 - Altru Health System, Grand Forks
 - Meritcare Medical Group, Fargo
 - Trinity Medical Center, Minot
- Each infant's results are entered into a state wide data system by hospital staff and reported to NDOPD
- The parents have the right to refuse the screening since law does not mandate it

6. Additional resources:

- American Academy of Pediatrics Policy Statement, *Pediatrics*, Feb. 1999.
- Healthy People 2010 goals from the U.S. Department of Health and Human Services
- The Joint Committee on Infant Hearing Screening Year 2000 Position Statement
- www.ndcpd.org/1stsounds; www.infanthearing.org; www.asha.org/press/EHDI_statement.cfm; www.cdc.gov/nobdd/ehdi; www.infanthearing.org/

Deanna Waller
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10/21/03
Date



**EARLY HEARING DETECTION AND INTERVENTION (EDHI)
BILL #**

BACKGROUND

- Hearing loss is the most frequent birth defect (3 per 1000).
- Undetected hearing loss has serious, negative consequences.
- Dramatic benefits are associated with early identification and intervention of hearing loss in babies.
- Hearing screening in the hospital after birth is easy and low cost.
- A majority of states (37) have enacted legislation supporting universal newborn hearing screening in the hospital and several more are in the process.
- EDHI has wide-spread support from physicians, hospital staff, audiologists, parents, educators and tax payers.
- The babies of North Dakota deserve the same opportunity for a healthy start to life that babies born in other states now have.

IMPACT OF EDHI

- Children with hearing loss who are identified and receive early intervention within the first six months of life have significantly better expressive language and vocabulary skills than children with hearing loss who are identified after six months of age. Current literature indicates language abilities do not ever catch up.
- As of the cost of educating a child with hearing loss in the North Dakota School for the Deaf is approximately \$\$\$\$\$. The cost of educating a child in a regular education setting with hearing loss who was been identified before six months of age is approximately \$\$\$\$.
- Hearing loss in children can have a negative impact on learning, speech, language, social skills and cognitive development.

IMPLEMENTATION OF EDHI IN NORTH DAKOTA

- Through a federally funded grant, all hospitals in North Dakota have already been given the necessary equipment and training to screen every baby's hearing before discharge. By March, 2003 all hospitals in ND will be providing screening programs.
- The cost of screening a baby in the hospital can be as low as \$10.50 per baby.
- The remaining year of the Federal grant will focus on:
 - Implementation of regional referral centers for babies who do not pass the screening
 - Further training and support for hearing screening programs in hospitals

For more information please contact Dr. Stephanie Tarrant Martin at
1-800-233-1737 or by email at martins@minotstateu.edu

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Deanna Wall
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10/21/03
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Early Hearing Detection and Intervention (EHDI). Universal Newborn Hearing Screening

Every day 33 babies (or 12,000 each year) are born in the United States with major hearing loss, making it the most common congenital birth defect. Almost double this number of newborns has some moderate hearing loss. Yet more than half of all newborns leave the hospital without a hearing screening test. The federal block grants provided in FY 2000 and 2001 have spurred important progress in the states, with 35 states having passed legislation to provide hearing screening for all newborns.

However, hearing loss in the United States is not identified in children, on average, until age 30 months, lagging significantly behind other countries such as England and Israel. Yet we know that the 6- to 24-month-age period is a critical period during which children with hearing loss and no intervention begin to suffer irreversible damage to their speech and language development. Every hour in America, 2 babies are aging out of that crucial window without the assistance or intervention they need.

Investing in Early Hearing Detection and Intervention (EHDI) can actually save the taxpayer money. Recent research has concluded those children born with a hearing loss who are identified and given appropriate intervention by six months of age are likely to develop language on par with their hearing peers. An accurate newborn hearing screening test costs approximately \$30 per child, and takes 9 minutes to administer. When this screening identifies hearing loss and is followed by early intervention, approximately \$420,000 per child in special education costs are saved by the time this child graduates from high school. EHDI is also the critical first step in ensuring that the proposed early reading initiative is successful and those IDEA program funds are most effectively utilized.

Left undetected, hearing impairments in infants can negatively impact speech and language acquisition, academic achievement, and social and emotional development. If detected, however, these negative impacts can be diminished and even eliminated through early intervention. Because of this, the National Institutes of Health's (NIH) Consensus Development Conference on Early Identification of Hearing Loss (1993) concluded that all infants should be screened for hearing impairment, preferably prior to hospital discharge.

INTRODUCTION

There is a clear need in the United States for improved methods and models for the early identification of hearing impairment in infants and young children. Approximately 1 of every 1,000 children is born deaf. Many more are born with less severe degrees of hearing impairment, (3 of every 1,000 newborns have a hearing loss) while others develop hearing impairment during childhood. Reduced hearing acuity during infancy and early childhood interferes with the development of speech and verbal language skills. Although less well documented, significantly reduced auditory input also adversely affects the developing auditory nervous system and can have harmful effects on social, emotional, cognitive, and academic development, as well as on a person's vocational and economic potential. Moreover, delayed identification and management of severe to profound hearing impairment may impede the child's ability to adapt to life in a hearing world or in the deaf community.

The most important period for language and speech development is generally regarded as the first 3 years of life and, although there are several methods of identifying hearing impairment during the first year, the average age of identification in the United States remains close to 3 years. Lesser degrees of hearing loss may go undetected even longer. The result is that for many hearing-impaired infants and young children, much of the crucial period for language and speech learning is lost. There is general agreement that hearing impairment should be recognized as early in life as possible, so that the remediation process can take full advantage of the plasticity of the developing sensory systems and so that the child can enjoy normal social development.

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During the past 30 years, infant hearing screening has been attempted with a number of different test methods, including cardiac response audiometry, respiration audiometry, alteration of sucking patterns, movement or startle in response to acoustic stimuli, various behavioral paradigms, and measurement of acoustic reflexes. For the past 15 years, auditory brain stem response (ABR) audiometry has been the method of choice. More recently, attention has recently turned to the measurement of evoked otoacoustic emissions (EOAE), which shows promise as a fast, inexpensive, noninvasive test of cochlear function. Each method is effective in its own way, but technical or interpretative limitations have impeded widespread application. Moreover, these approaches vary in their sensitivity, specificity, and predictive value in identifying hearing impairment.

Until now, most neonatal screening programs have focused on infants who satisfy one or more of a number of criteria for inclusion in a "high-risk register." However, the use of high-risk criteria (HRC) to limit the population being screened excludes approximately 50 percent of infants with hearing impairment. The preferred screening test method for HRC children has come to be ABR, combined with audiologic follow-up and/or diagnostic ABR for those infants who fail the screening protocols. Despite the relatively good predictive efficiency of ABR, its cost, time requirements, and technical difficulties have discouraged the general application of this method in screening the far larger newborn population not meeting the HRC.

General, but not all inclusive information gathered by Bernard J. Hoggarth MD FAAP. Meant to serve as an introduction to Early Hearing Detection and Intervention (EHDI).

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Personnel for First Sounds:

Stephanie Martin (Ph.D., CCC-A SLP)
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Larry Martin (Au.D., CCC-A)
Technology Coordinator

Sue Burns (R.L.T., B.S.N.)
State Implementation Coordinator



For more information contact First Sounds:

Phone: 800-233-1737

Fax: 701-858-3483

Website: <http://www.ndcpd.org/1stsounds>

**WE CARE THAT
YOUR BABY HEARS**

YOUR BABY should receive a
Newborn Hearing

Screening before leaving the
hospital. This brochure will
answer questions about how
the test is performed and why.



Early Hearing Detection &
Intervention

First Sounds of North Dakota is working
to ensure every baby born in ND will
receive a newborn hearing screening

**IT IS IMPORTANT TO HAVE YOUR
BABY'S HEARING CHECKED**



Your baby can't tell you if he or she can hear. Babies who
have difficulty hearing may have problems learning to talk.



When hearing problems are detected early, a baby is better
able to learn language. This will help him or her prepare for
and do better in school.



Professionals can best help your baby if a hearing loss is found
before six months of age.



Newborn Hearing Screening is safe, quick, and easy to do.



Having your baby's hearing checked now will give you peace of mind in
knowing your baby is getting the best possible start on life. The other side of
this brochure includes more information about the Newborn Hearing
Screening Program.

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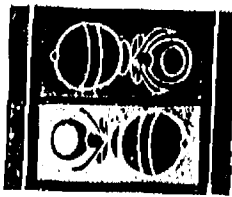
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NEWBORN HEARING SCREENING: QUESTIONS & ANSWERS

Why should my baby's hearing be tested?

Significant hearing loss is one of the most common major abnormalities present at birth, and, if undetected, will cause problems with speech, language, and cognitive development. In fact, one of the most common signs of hearing loss is a delay in speech and language development. When hearing loss is found early, steps can be taken to help children overcome the challenges that may result.



How is the testing done?

Testing will be done through either Evoked Otoacoustic Emissions (OAE) or Auditory Brainstem Evoked Response (ABR).

The OAE test consists of a small probe microphone placed in the baby's outer ear canal. A sound is sent from the probe to the inner ear, and the microphone picks up the sounds sent back.

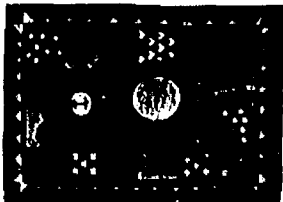
The ABR testing measures the brain's response to clicks presented through miniature earphones. Sensors measure your baby's entire hearing pathway.

Both tests are very safe, do not hurt, and take only minutes to complete. Most babies sleep through the test.

What do the results mean?

Your baby will either pass or be referred for further screening. In some cases, children who pass the newborn screenings may develop hearing loss later on in life. Be sure to attend your well-baby appointments and watch for the speech, language, and hearing milestones listed in the following column.

If your baby is referred for additional screening, the hospital will tell you. Re-screening is scheduled 2 to 6 weeks after the initial screening. If the re-screening is not passed, your child will be referred for a complete audiological evaluation with an audiologist. If a hearing loss is identified, a referral for early intervention and family support services will be made.



Speech, Language & Hearing Milestones
Be sure your baby is reaching these milestones:

Around 2 months of Age:
 ✓ Startles to loud noises
 ✓ Quiets to familiar voices
 ✓ Makes vowel sounds like "ohh" & "ahh"

Around 4 months of Age:
 ✓ Looks for sounds with eyes
 ✓ Starts babbling
 ✓ Uses a variety of voice sounds, such as squeals, whimpers, and chuckles

Around 6 months of Age:
 ✓ Turns head toward sound
 ✓ Begins to imitate speech sounds
 ✓ Babbles ("ba-ba" & "ga-ga")

Around 9 months of Age:
 ✓ Imitates speech sounds of others
 ✓ Understands "no-no" & "bye-bye"
 ✓ Turns head toward soft sounds

Around 12 months of Age:
 ✓ Correctly uses words like "ma-ma" or "da-da"
 ✓ Gives toy when asked
 ✓ Responds to singing or music
 ✓ Locates sound in all directions



**EARLY HEARING DETECTION AND INTERVENTION (EDHI)
SENATE BILL # 2257**

BACKGROUND

- Hearing loss is the most frequently occurring birth defect (3 per 1000).
- Undetected hearing loss has serious, negative consequences.
- Dramatic benefits are associated with early identification and intervention of hearing loss in babies.
- Hearing screening in the hospital after birth is easy and low cost.
- A majority of states (37) have enacted legislation supporting universal newborn hearing screening in the hospital and several more are in the process.
- EDHI has wide-spread support from physicians, hospital staff, audiologists, parents, educators and tax payers.
- The babies of North Dakota deserve the same opportunity for a healthy start to life that babies born in other states now have.

IMPACT OF EDHI

- Children with hearing loss who are identified and receive early intervention within the first six months of life have significantly better expressive language and vocabulary skills than children with hearing loss who are identified after six months of age. Current literature indicates language abilities do not ever catch up.
- Hearing loss in children can have a negative impact on learning, speech, language, social skills and cognitive development.
- Research demonstrates the cost of educating a child with hearing loss who was been identified before six months of age is **significantly less** than educating a child whose hearing loss was identified later than six months of age.

IMPLEMENTATION OF EDHI IN NORTH DAKOTA

- Through a federally funded grant, all birthing hospitals in North Dakota have already been given the necessary equipment and training to screen every baby's hearing before discharge. By March, 2003 all birthing hospitals in ND will be providing screening programs.
- The cost of screening a baby in the hospital can be as low as \$10.50 per baby.
- The remaining year of the Federal grant will focus on:
 - Implementation of regional referral centers for babies who do not pass the screening
 - Further training and support for hearing screening programs in hospitals

**For more information please contact Dr. Stephanie Tarrant Martin at
1-800-233-1737 or by email at martins@minotstateu.edu**

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Stephanie Tarrant Martin
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Newborn Hearing Screening
First Sounds of North Dakota
EARLY HEARING DETECTION AND INTERVENTION
(EDHI)

The North Dakota Center for Persons with Disabilities (NDCPD) at Minot State University in cooperation with Children's Special Services of the North Dakota Department of Human Services obtained federal funding in April, 2000 to begin the *First Sounds* Project.

The Goals of the *First Sounds* Project are:

- Screen all newborns prior to hospital discharge or by one month of age
- Refer for audiologic/diagnostic assessment prior to three months of age
- Refer for intervention services prior to six months of age

The project is assisting participating hospitals in purchasing the screening equipment of their choice as well as providing the hospital staff with training on how to conduct the screenings, how to record and report screening data to a statewide tracking system, and how to make appropriate referrals. The grant will end on March 31, 2004.

Facts on Infant Hearing Loss:

1. Frequency of Hearing Loss

- Hearing loss occurs more frequently than other screened newborn conditions
 - 0.10 in 1000 births have phenylketonuria (PKU)
 - 0.25 in 1000 births have Hypothyroidism
 - 0.20 in 1000 births have Sickle Cell
- Approximately 27 ND infants are born annually with permanent hearing loss in both ears (3 in 1000 births)
- Approximately 18 ND infants are born annually with a minimal hearing loss in one or both ears (2 in 1000 births)
- In total, approximately 45 North Dakota infants out of 8,846 annual births are born with a hearing loss
- 50% of children identified with hearing loss have no known risk factors

2. Language Development

- The average age of identification of hearing loss without newborn hearing screening is 14 months
- Studies have shown when hearing loss is not detected in the first 6 months of life, an important time frame for developing speech and language skills has passed and a significant delay may occur
- When speech and language development is delayed, academic and social skills are adversely affected
- Any degree of hearing loss effects language and school performance
- Children with a hearing loss in one ear are ten times as likely to repeat a grade as compared to children with normal hearing in both ears

3. Technology

- There are two basic methods of technology to screen hearing in newborns that are efficient, reliable, and cost effective:
 - **Evoked Otoacoustic Emissions (OAE):** Tests inner ear function through the use of a small probe microphone placed in the outer ear canal of the baby. A sound is sent from the probe to the inner ear, and the microphone records the sounds sent back.
 - **Auditory Brainstem Evoked Response (ABR):** Tests brain wave patterns using miniature headphones and sensors on the head, neck, and shoulder. A clicking sound is used to see how the baby's entire hearing pathway reacts to the sound.

July 2002

Information Sheet for North Dakota Legislature

First Sounds 800-233-1737

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Deanna Walcott

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4. Benefits of Early Detection

- Infants identified with hearing loss may be fit with hearing amplification as young as four weeks of age
- Research has found treatment has the best results when infant hearing loss is identified and intervention begins before the child reaches six months of age
- Early identification and intervention results include:
 - Dramatic improvement in the child's communication skills
 - Improvement in language development, cognitive development, auditory development, vocabulary acquisition and speech development
 - Improvement in school achievement, self-esteem and social/emotional development

5. ND State programs

- All birthing hospitals in North Dakota participate in some form of infant hearing screening
- 70% of the babies born in ND are being screened (as of May 2002)
- Three hospitals in the state are screening at least 90% of their births:
 - Altru Health System, Grand Forks
 - Meritcare Medical Group, Fargo
 - Trinity Medical Center, Minot
- Each infant's results are entered into a state wide data system by hospital staff and reported to NDCPD
- The parents have the right to refuse the screening since law does not mandate it

6. Additional resources:

- American Academy of Pediatrics Policy Statement, *Pediatrics*, Feb. 1999.
- Healthy People 2010 goals from the U.S. Department of Health and Human Services
- The Joint Committee on Infant Hearing Screening Year 2000 Position Statement
- www.ndcpd.org/1stsounds; www.infanthearing.org; www.asha.org/press/EHDI_statement.cfm; www.cdc.gov/ncbddd/ehdi; www.infanthearing.org/

TESTIMONY IN SUPPORT OF SB NO. 2257
Senate Human Services Committee
January 26, 2003

Robert M. Wentz, MD, MPH

Madame Chairman, Committee members:

My name is Bob Wentz. I am a general pediatrician working at Q&R Clinic here in Bismarck. I am representing my self in support of SB 2257. I obtained a Masters Degree in Public Health and worked for the State Department of Health for 16 years, serving as the State Health Officer for eight years.

I wish to provide some history of newborn hearing screening in North Dakota.

One of the earliest methods used to screen the hearing of newborns was for the health care provider to clap their hands. If the baby jumped, it was assumed that the hearing was OK. If they didn't, they were deaf and that was that. Newborn hearing screening has come a long way since then!

Twenty-some years ago, when I was serving as Director of the Division of Maternal and Child Health with the Health Department, I was approached by some audiologists here in Bismarck regarding a "risk-based" type of hearing screening. This type of system had been established in other states and audiologists in North Dakota were interested in establishing a system here. The risk-based approach involved adding a series of questions to the Birth Certificate regarding factors which were considered to place children at risk of having hearing impairments. These risk factors included low birth weight, jaundice in the newborn period, a family history of hearing impairment and others. The risk-based system did result in identification of some infants with hearing loss, but missed many others.

In recent years, technological advances have been made in hearing screening equipment and hearing aids which allow early detection of hearing impairment and use of hearing aids during the critical early months of a child's life when hearing is critical for the development of language.

A fledgling universal newborn hearing screening program has been established in the state, which is finding infants with hearing impairment. Without some further support, the system cannot be maintained.

I urge a "do pass" for SB 2257 to allow us to join the other states who are providing this screening for all newborns.

Thank You.

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Robert M. Wentz
Operator's Signature

10/21/03
Date

Testimony for Senate Bill 2257 Newborn Hearing

Senator Lee and members of the committee, my name is Donene Feist, from Edgeley, North Dakota. I regret that I am unable to provide testimony for you in person today, however thank you for the opportunity to share my personal story.

I am the parent of Zachary, now 12 in the 6th grade. Zachary is an awesome child, who gives his all and loves everything in life. He has many friends, participates in all of the sports he can, and is very successful in our community. One of his biggest successes is pee wee wrestling of which he has acquired over 30 medals. Zachary has also had to overcome some significant challenges in his young life. Zachary has a severe hearing impairment. With hearing aides Zachary can hear about 70% of spoken language. Without them he hears very little. Zachary was diagnosed at age 2 ½, of which was most difficult to obtain. Zachary did have a traumatic birth, and following had many recurring ear infections. He also has a sister just ten months younger than he who began talking many months before he could utter any words at all. We questioned this language deficit over and over and over again and were repeatedly told that we were being over reactive parents and not to worry. After repeatedly not receiving any answers and feeling that something else was wrong we initiated another opinion. The results were what we painfully suspected all along, in that Zach could not hear. Imagine how I felt as a parent hearing this news after many futile attempts to obtain a diagnosis and then hearing from the specialist "you're a nurse you should have known"!!!!

When a child is diagnosed with a hearing impairment, generally they say that a child officially begins to learn language skills from the time of being aided. Zachary would now have to relearn everything he missed the first 2 ½ years of his life. This was

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Donene Feist
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12/21/03
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by no means any easy task. Zachary began very intense speech therapy, which not only cost us thousands of dollars but also cost the state of North Dakota thousands of dollars as we initially qualified under the Medicaid Medically Needy Program, which covered his first set of hearing aides and extensive speech therapy. I am eternally grateful for that program. (Which as a plug would encourage the state to continue this program)

Zachary is a very resilient young man. Initially, the adjustment to his new hearing aides was overwhelming. He hated them! The only time we could get him to wear them was in the car, which meant we spent hours upon hours driving and helping him to adjust and instilling as much language as we could in that time. He hid his hearing aides, buried them, and threw them in the bushes, anything to not wear them. Speech therapy, and early intervention services took place three to four days a week for many, many months. On a personal note, my employment had to change, working 16 hour shifts, to accommodate his intense therapy schedule.

Fortunately, there are many devoted people working with Zach. He is now in his regular classroom with children his age; he has a teacher for the hearing impaired in our local school and continues to receive speech therapy. Despite all of our efforts, Zachary performs academically as the other children in his class, however because of his hearing impairment his speech continues to be delayed four to five years. Many times those not familiar with Zachary cannot understand his speech. There are many of the speech and language slang and phrases that Zachary does not understand, that we take for granted every day. We work very hard to teach him, and instill in him all the language aspects that we can. Zachary is a fluent lip reader. This is a skill that he acquired mostly on his own, which has aided in his success. Our home has been adapted to meet Zach's needs to

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help him in his environment, such as doorbells, phones for the hearing impaired, closed captioning, an alarm which has a vibrating system that he can feel, fire alarms which use strobe lights. Zachary will need these things throughout his life.

Zachary plans to grow up one day to play professional football for the Green Bay Packers (don't hold that against him); he also hopes to help other children with disabilities to be all that they can be.

My point in sharing with you Zachary's story for us has much significance. Our hope is you will give sincere thought and passage of newborn hearing screenings. I can only imagine what life would be like if Zachary had been diagnosed at birth. If he would have been aided and hearing everything that he missed those 2 1/2 years. We wouldn't have had many of the struggles that we have had in his young lifetime. If we can screen newborns and assist them from birth, we will be aiding in their success for their future. You as lawmakers can assure that other children will have the right start. Thank you

Donene Feist, PO Box 163 Edgeley, North Dakota 58433



Phone: 701-493-2333

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10/21/03
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TESTIMONY BEFORE THE SENATE HUMAN SERVICES COMMITTEE

REGARDING SENATE BILL 2257

January 27, 2003

Chairman Lee, members of the committee, I am Bernard Hoggarth, a pediatrician with the Altru Health System in Grand Forks for the last 25 years. I am here in support of SB2257. The effect of this bill is to identify infants with a hearing loss, to implement a tracking system, and support early intervention.

Significant hearing loss is one of the most common major abnormalities present at birth and, if undetected, will impede speech, language, and cognitive development. Significant bilateral hearing loss is present in ~1 to 3 per 1000 newborn infants in the well-baby nursery population, and in ~2 to 4 per 100 infants in the intensive care unit population. Hearing loss among newborns is 20 times more prevalent than phenylketonuria (PKU), a condition for which currently all newborns in North Dakota are screened as part of a statewide newborn metabolic screening program. The average age that children with hearing loss are initially diagnosed ranges from 12 to 25 months. Studies have shown that when hearing loss is detected later, an important time frame for developing speech and language skills has passed. As a result, speech and language development is delayed and academic and social skills may be adversely affected. Research has confirmed that treatment has the best results when infant hearing loss is identified and intervention begins before the child reaches

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Bernard Hoggarth
Operator's Signature

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six months of age. Currently, the average age of detection of significant hearing loss is ~14 months. A unilateral hearing loss that remains undetected will have negative consequences. Even children with a hearing loss in one ear are ten times as likely to be held back by a grade as compared to children with normal hearing in both ears. Infants identified with hearing loss may be fit with hearing amplification as young as four weeks of age. Appropriate and comprehensive early intervention helps these children develop with better language, cognitive, and social skills. Technology for screening, identification, intervention and tracking of these infants are now economically available.

As president of the North Dakota Chapter of the American Academy of Pediatrics I know that all members have received a copy of proposed SB2257, and many have had major input on the final wording.

The American Academy of Pediatrics supports the statement of the Joint Committee on Infant Hearing (1994), which endorses the goal of universal detection of hearing loss in infants before 3 months of age, with appropriate intervention no later than 6 months of age. Universal newborn hearing screening has also been endorsed by the National Institutes of Health, the American Academy of Otolaryngology, and the American Academy of Audiology, the American Speech-Language-Hearing Association, and the Healthy People 2000 report. There are currently 32 states that have passed statutes regarding universal newborn hearing screening programs and successful examples can be seen throughout the United States.

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Universal detection of infant hearing loss requires universal screening of all infants. Screening by high-risk registry alone (e.g., family history of deafness) can only identify ~50% of newborns with significant congenital hearing loss. Reliance on physician observation and/or parental recognition has not been successful in the past in detecting significant hearing loss in the first year of life.

To justify universal screening, at least five criteria must be met:

1. An easy-to-use test that possesses a high degree of sensitivity and specificity to minimize referral for additional assessment is available.
2. The condition being screened for is otherwise not detectable by clinical parameters.
3. Interventions are available to correct the conditions detected by screening.
4. Early screening, detection, and intervention result in improved outcome.
5. The screening program is documented to be in an acceptable cost-effective range

A review of published data indicates that all five of these criteria currently are achievable by effective universal newborn hearing screening programs (UNHSP).

There are five essential elements to an effective UNHSP:

1. Initial screening
2. Tracking
3. Follow-up
4. Identification
5. Intervention, and evaluation

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Currently all birthing hospitals in North Dakota are screening newborns for hearing loss. Data are available as to the numbers screened and those that passed and failed. Data on tracking, follow up, identification, intervention and evaluation are lacking.

In September of 2002 the North Dakota Medical Association adopted a resolution describing the scientific basis for screening newborns for hearing problems, resolving that NDMA support universal hearing screenings, and tracking and follow-up for all newborns and infants born in ND.

The child's physician and parents, working in partnership, make up the child's medical home and play an important role in each of these elements of a UNHSP.

A statewide approach to identification and intervention for infants with significant hearing loss is essential, ensuring access for all children with significant hearing loss to appropriate expert services. It is recognized that professionals with demonstrated competency to provide expert services in the identification and intervention of significant hearing loss in young infants are not available in every hospital or community. The child's physician, within the medical home, working with the state department must ensure that every infant with significant hearing loss is referred to the appropriate professional(s) within the regionalized system.

An effective statewide program requires broad-based support and collaboration.

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Madam Chairwoman, members of the Human Services Committee, Senate Bill 2257 will give us the ability to detect and appropriately treat any newborn with a significant hearing loss. This bill will benefit our most precious treasures, the children of North Dakota. For these reasons, I respectfully recommend a **DO PASS** on this bill. Thank you for this opportunity to testify. I will be glad to answer any questions regarding my testimony.

Bernard J. Hoggarth MD FAAP Pediatrician

Altru Health System

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TESTIMONY

Eric R. Lunn, MD, FAAP

Senate Bill 2257

January 27, 2003

Madam Chairwoman, members of the Human Services committee:

Thank you for the opportunity to present written testimony to you today. Due to a conflict with my teaching duties I am unable to testify in person. I am a Pediatrician practicing in Grand Forks and also an Associate Professor of Pediatrics and Assistant Dean at the University of North Dakota School of Medicine & Health Sciences. I am presenting testimony as a Pediatrician who cares for the needs of our children in North Dakota in support of Senate Bill 2257, an act to provide for infant hearing detection and intervention.

Significant hearing loss is one of the most common major abnormalities present at birth. Significant bilateral hearing loss is present in approximately 1 to 3 per 1,000 newborn infants in the well-baby nursery population and in approximately 20 to 40 per 1,000 infants in the intensive care unit population. If hearing loss is not detected early in life, there are significant delays in speech, language, and cognitive development; and academic and social skills are adversely affected. Even children with a hearing loss in one ear are 10 times as likely to be held back a grade in school as compared to children with normal hearing in both ears. Research has shown that if children with hearing loss are identified and treated before 6 months of age, they have a significantly better outcome. Because of this the American Academy of Pediatrics supports the statement

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of the Joint Committee on Infant Hearing, which endorses the goal of universal detection of hearing loss in infants before 3 months of age, with appropriate intervention no later than 6 months of age. I am a fellow/member of the American Academy of Pediatrics which is an international organization of greater than 57,000 physicians whose goal is to attain optimal physical, mental, and social health and well-being for all infants, children, adolescents, and young adults. Universal newborn hearing screening has also been endorsed by the National Institutes of Health, the American Academy of Otolaryngology, the American Academy of Audiology, the American Speech-Language-Hearing Association, the Joint Committee on Infant Hearing, and the Health People 2000 report. Universal detection of infant hearing loss requires universal screening of all infants. Screening by high-risk registry alone (e.g., family history of deafness), reliance on physician observation, or parental recognition has not been successful in the past in detecting significant hearing loss in the first year of life.

To justify any universal screening program, five criteria must be met:

1. An easy-to-use test that possesses a high degree of sensitivity and specificity to minimize referral for additional assessment is available.
2. The condition being screened for is otherwise not detectable by clinical parameters.
3. Interventions are available to correct the conditions detected by screening.
4. Early screening, detection, and intervention result in improved outcome.
5. The screening program is documented to be in an acceptable cost-effective range.

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Several successful screening programs met these criteria including newborn screening for metabolic disorders, mammography screening for breast cancer, blood pressure screening for hypertension, etc. Research indicates that all five of these criteria are achievable by effective universal newborn hearing screening programs. There are currently 32 states that have passed statutes regarding universal newborn hearing screening and successful examples can be seen throughout the United States. Senate Bill 2257 will establish a model universal newborn hearing screening program for our newborns here in North Dakota.

Madam Chairwoman, members of the Human Services Committee, Senate Bill 2257 will give us the ability to detect and appropriately treat any newborn with a significant hearing loss. This will benefit our most precious treasures, the children of North Dakota. I would strongly urge you to pass Senate Bill 2257, an act to provide for infant hearing detection and intervention. Thank you for this opportunity to testify and feel free to contact me if you have any questions or concerns.

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Deanna D. Lunn
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Senate Bill 2257 Early Hearing Detection and Intervention

Senator Lee and Committee Members:

My name is Dr. Larry G. Martin. I am an audiologist with Trinity Health in Minot, North Dakota. I have taken the time today away from my practice to be here to address this committee on a subject that is very near and dear to my heart.

I have practiced as a clinical audiologist for about fifteen years. I began practice with Trinity Health in Minot in 1995, at which point Dr. Roger Allen (a Neonatologist) and I started the first universal newborn infant hearing program in the state of North Dakota. While most major hospitals were starting to provide hearing screenings on high risk infants, no hospitals were providing these services for all newborns. The Trinity program has been in existence for nearly seven years. We have successfully identified several infants and subsequently were able to see that these infants were provided proper amplification and early intervention, with one child being referred for a cochlear implant. The benefit this program has had on these children and their families is immeasurable. By properly identifying children at this early age it allows us to place these children on a more level playing field as those babies born with normal hearing abilities. When identified at this early age we will provide them with the ability to develop normal or near normal speech and language offering them a better chance for academic success. This can only happen if we are able to identify them within to six months of birth.

The only way a child can be identified before six months of age is if we are able to have the hearing screening completed before the child leaves the hospital at birth. It would take exceptional and unusual circumstances to suspect hearing loss prior to a year

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of age and by this time the window of opportunity to successfully help these children has closed. Most babies who are born with hearing loss in a hospital without this service will not likely be identified until they are 1 1/2 to 3 years of age.

I, along with several other professionals, co-authored a Federal grant proposal which was funded and brought over \$800,000.00 to North Dakota. The First Sounds project fund monies were used to provide the necessary equipment and training to all of the birthing hospitals in the State, so each birthing hospital could begin providing these crucial services. With out the funds this grant has provided, almost none of these birthing hospitals would able to provide infant hearing screening. However, through these funds, all birthing hospitals are participating in the project.

I am here testifying today as a professional that has the opportunity to see the success of this program in operation, I am here as a father who would have liked to have had this available when my children were born, and I am here as a constituent in this State to urge this committee to approve this bill and to ask each of you to provide your talents and abilities to see that this very important bill be allowed to become law in the State of North Dakota. Thank you for the opportunity to provide this testimony.

Deanna Ball
Operator's Signature

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