

Policy Brief

The Need for Universal Hearing Screens for Quebec Babies



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Fall 2014 Internship Cohort



In the fall of 2014 the IHSP welcomed eleven McGill students from across the University for a 14-week Internship. Training sessions focused on communicating research findings to the media or general public, and gaining insight into different disciplinary approaches. In addition to in-depth research projects carried out in collaboration with faculty and staff, interns devoted ten to fifteen hours to short policy projects on a topic of their choice. Students were asked to frame an issue, find at least two points of supporting evidence and develop rudimentary policy recommendations. The following document reflects the short timeframe given to students to complete this task, and may not be a polished product.

Please note the opinions reflected in this document do not necessarily reflect the opinions of the IHSP.

THE NEED FOR UNIVERSAL HEARING SCREENS FOR QUEBEC BABIES

THE ISSUE

Two out of 1000 newborns are born with hearing loss, hindering their speech development. Without appropriate early assistance such as cochlear implants, these children may not be able to perform normal activities for their age group, and will require specialized education at a high cost for Quebec's government.

When newborns benefit from immediate hearing screens, interventions can begin instantly to ensure better success rates of hearing aids and cochlear implants, in order to promote normal speech development.

Quebec Health Ministry should implement newborn hearing screens, which lead to early intervention, encouraging normal speech development.

**DESPITE QUEBEC'S GOVERNMENT
ANNOUNCING A PLAN FOR PROVINCE-
WIDE NEWBORN HEARING SCREENS IN
2009, ONLY 20-25% OF BABIES WERE
TESTED IN 2013.**

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Context: Why It matters

Children who suffer from hearing loss at birth are at a severe disadvantage for developing normal speech. This often causes poor performance at school and limits career options. In Montreal, two schools for the deaf offer specialised education, at a cost of around \$30,000 per year per child for their pre-school program (compared to around \$10,000 a year for Quebec's most expensive private pre-schools). Technology such as cochlear implants can permit normal speech development, especially if implanted before the age of 2. In cases such as these, many children enter the first grade with language skills very close to those of children their age with normal hearing. These implants are completely covered by RAMQ if they are necessary to a child's language development.

The Montreal Oral School for the Deaf and Mackay Centre Schools in Montreal offer several programs for infants, pre-schoolers and school-aged children up until the end of high school, which integrate children with hearing loss into the public school system.

Studies have demonstrated that earlier hearing screens lead to earlier diagnosis, which has a significant impact on age of cochlear implementation and spoken language acquisition.

WHAT ARE THE BENEFITS?

Educational Benefits: Including children with hearing impairments in regular classrooms has additional benefits. Studies suggest that inclusive classrooms significantly improve sensibility and academic performance of both disabled and typical students. This effect is especially strong in elementary school, supporting mainstreaming of children with hearing loss as soon as possible.

WHAT TECHNOLOGY IS AVAILABLE?

The two technologies that currently exist to test newborn hearing are:

- Otoacoustic Emission Test (OAE)
 - Most cost-effective
 - High rate of false positive error (around 15%)
- Auditory Brainstem Response Test (ABR)
 - Child must be asleep or otherwise immobilised (requires anaesthesia after 6 months old)
 - Thorough testing can take up to 2 hours
 - Very accurate

Considering the lower cost of OAE, it should be implemented province-wide to test newborns' hearing, with ABR being recommended as soon as possible if the infant fails the first test (in order to also avoid possible complications with anaesthetics).

Economic Benefits: Lifetime cost of a cochlear implant is around \$90,000—significantly less than the cost to the government for children who do not receive intervention early, and require specialized education, resulting in decreased employability and higher education costs. A newborn hearing screen is completely non-invasive, lasts approximately 10 minutes and yet the Quebec National Institute for Public Health estimates a net benefit of \$1.7 million a year, mostly due to increased mainstreaming into public school (saving approximately \$20,000 per year per child) and increased career opportunities.

Quebec Should Lead the Way

Speech-Language and Audiology Canada released their annual “Universal Newborn Hearing Screen” report card for 2014, with Quebec ranking 9th out of 13 Canadian provinces and territories on percentage of newborns in the province receiving this screen (currently about 20%). With Quebec often ranking first in Canadian healthcare quality, a leadership stance on this issue should be expected, not only to maintain this status but also to encourage other provinces to follow in its lead. There is no real prevention for hearing loss at birth and therefore newborn hearing screens are currently the method leading to the best outcomes.

RECOMMENDATIONS

The Quebec Coalition for Newborn Hearing Screens should continue to lobby the government and propose realistic implementation programs (cost of technology, training of nurses, referrals etc....).

Hospitals should carry pamphlets and nurses should inform new parents of the potential risks of hearing loss, in order to increase pressure on RAMQ to provide this service indiscriminately and free of charge.

Private audiology clinics would still benefit from parents choosing to privately conduct further hearing tests following a failed newborn test, and would not lose receivers of cochlear implants from private healthcare.

Quebec Health Ministry should implement newborn hearing screens, which lead to early intervention, encouraging normal speech development.

Screen all newborns

WIN-WIN OUTCOME:

Universal Newborn Hearing Screens is a politically blind issue, with few negative outcomes, the worst of which is false positive rates, which would mean unnecessary further testing. However, positive outcomes can be life changing for children with hearing loss and their families, at the cost of 15 minutes and a \$25 non-invasive, painless test. The Quebec government needs to follow through on a promise that has been pending for five years and that will ultimately result in a new benefit.

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