

BC Early Hearing Program

A service of the Provincial Health Services Authority

Report on Program Start-up and Implementation 2005 – 2008

A sound start for BC babies





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Executive Summary

The British Columbia Early Hearing Program (BCEHP) is a complex provincial program integrated between health authorities, the ministries of Children and Family Development and Education, funded agencies, physicians, and other professionals.

At the heart of this unique program are the infants and young children who are deaf or hard of hearing and their families.

Since the program was announced in March 2005 by the Premier, significant development and implementation progress has been made. The program provides early hearing screening for all babies as well as diagnosis and intervention supports for infants and young children.

An Integrated Model

As a provincial program, the BCEHP provides coordinated, equitable, accessible and efficient early identification and intervention services for hard of hearing and deaf babies and their families.

The BCEHP is a service of the Provincial Health Services Authority (PHSA). The program is also a unique partnership with the province's regional health authorities. The program builds on existing hearing screening programs and services, such as public health audiology services. These services provide vital hearing checks as children develop. The BCEHP fills an important gap by providing very early detection of hearing loss and support to babies and their families as soon as possible after diagnosis.

The Ministry of Health has assigned the responsibility for the development, implementation and evaluation of the program to the PHSA. The PHSA provides funding allocations to the health authorities, provincial services for the deaf and hard of hearing and contracted service providers to deliver the program in accordance with provincially established policies, standards and procedures.

Working with the program's advisory groups and key stakeholders, BCEHP has developed standardized protocols, reporting processes and systems. Provincial training in screening, diagnostic assessment and intervention services has been provided across BC, with nearly 900 participants receiving training at 17 sessions in the first three years of the program.



The BCEHP has adopted a family-centred model of service delivery and has included families in all aspects of the program's development.

Physicians have also played a key advisory role in the BCEHP. An expedited and standardized medical assessment protocol has been developed with otolaryngologists across BC. This protocol ensures that infants with confirmed hearing loss receive approval for fitting of hearing aids and the necessary medical supports in a timely manner.

“BCEHP is one of the most important initiatives for children undertaken by the province in recent years. Children identified with hearing loss and their families will experience life-long benefits as a result of early identification and intervention. This provincial program is very complex and has required dedicated and expert guidance at all levels.”

Dana Brynelson, Provincial Advisor
Infant Development Program

Approximately 42,000 infants are born in British Columbia each year. Congenital hearing loss is reported to occur in between one and three of every 1,000 births¹. Based on the estimated prevalence, it is expected that between 80 and 125 infants will be born each year with hearing loss. Without newborn screening, the average age at which these children are identified in BC is about 44 months (based on data collected by the Ministry of Health in the 1990s).

The first six months of life is a very important time. Studies frequently report that when children with hearing loss are provided with appropriate intervention services by the age of six months, they and their families have much better outcomes. In the absence of other complicating factors, early intervention and support can help children with hearing loss acquire skills similar to their hearing peers by the time they start kindergarten. Screening infant hearing is the only proven way to lower the age of diagnosis.

The BCEHP provides a continuum of services and activities, including:

- screening babies by one month of age, either in hospital or in the community;
- audiological assessment of babies who need it by three months of age;
- medical assessment of babies with hearing loss within three months of confirming the loss;
- ensuring that communication and family supports are in place by six months of age;
- public education and communications regarding the importance of early hearing screening for infants;
- ongoing training for health authority staff, Ministry of Children and Family Development (MCFD) contracted agencies, and service providers; and
- program evaluation using the British Columbia Early Screening Surveillance Tool (BEST).

Progress to Date

- More than 10,000 babies have been screened as of March 2008. This number is expected to increase dramatically in the coming months, with the full implementation of screening throughout BC expected by December 2008.
- To date, over 40 babies have been identified with hearing loss through BCEHP.
- The development and implementation of the BCEHP hearing equipment plan has provided hearing aids and FM equipment to over 280 children at no cost to families.
- The capacity to provide infant diagnostic auditory brainstem assessment has increased from four to 13 sites across the province.
- Over 200 pieces of screening, diagnostic audiology and hearing aid verification equipment have been purchased and delivered to the health authorities, at an investment of \$2.5M.
- Over 50 Intervention Service Team kits including therapy and assessment materials, have been developed and distributed across the province.
- The program developed a secure Communities of Practice website for BCEHP professionals and advisory groups. The site enables nearly 500 registered users to access program information and updates and share information in a safe and effective manner.
- A public website has been developed along with information materials for parents, stakeholders, health authority staff and the public. These materials are intended to provide easy to understand information on the BCEHP and about the importance of early hearing screening. Materials for parents have also been translated into five languages and distributed to all health authorities.
- An integrated funding model for intervention services and consistent standards for both BCEHP-funded and MCFD-funded service providers has been developed for implementation in the 2008-09 fiscal year.
- A budget review from the first three years of development and implementation was completed. This review has informed the future year funding requirements to sustain the BCEHP and services to babies and their families.

¹ Fortnum, Heather; Summerfield, A.Quentin; Marshall, David; Davis, Adrian; and Bamford, John. Prevalence of permanent childhood hearing impairment in the United Kingdom and implications for universal neonatal hearing screening: questionnaire-based ascertainment study. Northern, J.; Down, M. Universal screening for infant hearing impairment: necessary, beneficial and justifiable. *Audiology Today*, 1994; 6:10-13

Program Milestones

2005 – 2006

During this starting year for the program, \$4.4M was provided to the PHSA for planning, development of provincial standards, protocols and guidelines and capital equipment procurement. In addition, the Ministry of Health allocated \$1.4M to the health authorities for the planning, development and beginning implementation of the BCEHP in their regions.

Health authority funding breakdown

Health Authority	Total funding
Interior Health Authority	\$245,556
Fraser Health Authority	\$334,039
Northern Health Authority	\$270,112
Vancouver Coastal Health Authority	\$231,256
Vancouver Island Health Authority	\$292,389
Provincial Health Services Authority*	\$4,426,648
Total	\$5,800,000

* includes funding for BC Women's

First Year Highlights

Program start-up

- Established the BCEHP provincial office, including the recruitment of the program director, administrative support staff and the provincial intervention consultant.
- Established the BCEHP Provincial Health Authority Council.
- Established the program's technical advisory groups and joint council.
- Created a partnership with the University of British Columbia's department of deaf education and the school of speech and audiology sciences.
- Developed the program's charter and work plan for the first phase of screening.
- Established a medical advisory group to link the program with physicians and to develop protocols for diagnostic medical follow-up for children referred with hearing loss. The group provides a forum for the discussion of BCEHP medical issues, and membership includes family practice physicians, otolaryngologists, neonatologists and paediatricians.
- Established a parent advisory group, to provide guidance from a parent's perspective on the development and implementation of the program.
- Developed the BCEHP Hearing Aid Plan, to provide BCEHP families with their child's first hearing aids and associated equipment free of charge. Coverage is for three years for all reasonable costs. The first child was fitted under the plan in April 2005. During this first year, BCEHP provided hearing aids to 84 children at a cost of \$83,000. Additional specialized equipment (Frequency Modulated, or FM, equipment) was also provided to eligible children at a cost of \$176,000.

- Worked with health authorities to develop the plan for implementing screening at 13 neonatal intensive care units (NICUs) throughout the province.

Training

- Held the first BCEHP provincial meeting, which provided an orientation to the program, sessions on family-centred care and visual reinforcement audiometry training. Consultation sessions were held with audiologists and audiometric technicians regarding BCEHP's draft screening and diagnostic audiology protocols. The sessions were attended by more than 80 public health staff throughout the province.
- Held the first training sessions on infant diagnostic audiology assessment, in preparation for the establishment of 13 infant diagnostic centres across the province. Audiologists from selected public health sites were given specialized training and competency evaluation as part of these sessions.

Capital and Equipment Investments

- Completed the first of two capital equipment purchases. The purchase included screening equipment for NICU sites and public health hearing clinics, diagnostic auditory brainstem response equipment and hearing aid verification equipment for a total of 75 units. This totalled an investment of \$1.5M. The equipment was deployed across the province.

Communications

- Established and distributed a regular newsletter about BCEHP activities for stakeholders.
- Developed communications materials for stakeholders.
- Began development of BCEHP's web and Communities of Practice sites.

2006 – 2007

During the second year of the program, program funding of \$4.526M was used to continue the development and implementation of the provincial program and begin NICU screening. Funding for the program changed from a formula based on population needs to targeted funds, to better align with the costs to the PHSA of developing a provincial program.

Health authority funding breakdown

Health Authority	Total funding
Interior Health Authority	\$409,000
Fraser Health Authority	\$432,000
Northern Health Authority	\$259,000
Vancouver Coastal Health Authority	\$424,000
Vancouver Island Health Authority	\$320,000
Provincial Health Services Authority*	\$2,682,000
Total	\$4,526,000

Highlights

Program operations

- Began newborn hearing screening in NICU sites across the province in July 2006. By September 2007 a total of 13 NICU sites were screening babies.
- Began health authority recruitment for BCEHP regional coordinators. The first coordinator was hired by the Fraser Health Authority in July 2006.
- Established a regional coordinators council for the program. The regional coordinators are the operational lead people for health authority early hearing programs.
- Continued to administer the program's hearing equipment plan, which enrolled an additional 99 children during this period, an investment of \$105,000.
- Established an intervention advisory group for the program, with representatives from different provincial preschool programs and community service providers. This group worked together to create a provincial agreement on the use of a standard plan for families of children with hearing loss known as an Individual Family Service Plan (IFSP). The group also developed a provincial definition of what family-centred care is and began developing a standardized assessment protocol and individualized family service planning. The group developed a process that would be adopted by all BCEHP intervention service providers, regardless of communication methodology.
- Completed stakeholder consultation in all regions with early interventionists and families to ensure communities across the province were able to provide input on the program's intervention services plan.
- Expanded the original BCEHP Provincial Health Authority Council to a broader based group known as the BCEHP Provincial Steering Committee. This group better represents the key participants in this complex program.
- Recruited the Provincial BCEHP staff, including the intervention services consultant, PHSA regional coordinator, BCEHP diagnostic audiologist and program assistant.
- Developed standardized protocols for hearing aid verification.
- Developed and implemented the program's supply ordering process and equipment tracking inventory systems.

Training

- Held three training sessions with 75 health authority participants being trained for NICU and community screening sites.
- Held a three-day provincial training session on hearing aid verification for 80 public health audiologists.
- Held the first provincial training session for 85 early interventionists, including speech-language pathologists, teachers of the deaf and hard of hearing, and infant development consultants. The session provided orientation to the BCEHP and the intervention standards and guidelines as well as education on specific topics related to speech, language, and listening development therapy with infants with hearing loss.
- Held the second provincial BCEHP meeting, with training and education provided on specific aspects of the program, including counselling for non-counsellors. Approximately 80 staff participated from across the health authorities.
- Developed a train-the-trainer support model for screener supervisors. Through this model, learning across health authorities is shared and the evaluation of screening standards across health authorities is consistent.



Capital and Equipment Investments

- Provided each of the province's preschool programs for children with hearing loss with an upgrade of their FM equipment, an investment of \$76,000.
- Loaner hearing aids were provided to each public health audiology clinic in the province, a cost of nearly \$100,000. These aids are provided to children when their BCEHP-funded hearing aid needs repair.
- Early communication and developmental assessment tools were provided to early intervention programs that specialize in hearing loss with infants and young children, at a cost of over \$60,000.
- \$1.1M was invested in additional screening and clinical equipment for the health authorities.

Communications

- Developed a wide range of program information resources for families and service providers, including brochures, information updates, and a poster. These materials were developed, printed, and distributed to all health authorities. The materials provided information on the BCEHP as well as on screening, diagnostic assessment and the program's hearing aid plan. Some of the materials were translated into Punjabi, Chinese (both simplified and traditional), Korean, and Farsi.
- Developed the BCEHP public website, which went live in July 2006.
- Continued to work with PHSA and program stakeholders to develop a secure Communities of Practice site for the program.

2007 – 2008

In the program's third fiscal year, funding of \$7M was used to further develop the program and to begin implementing province-wide screening for all newborns. The funding included the distribution to health authorities shown at right.

Health authority funding breakdown

Health Authority	Total funding (from PHSA)
Interior Health Authority	\$565,000
Fraser Health Authority	\$617,823
Northern Health Authority	\$279,808
Vancouver Coastal Health Authority	\$518,000
Vancouver Island Health Authority	\$344,500
Provincial Health Services Authority*	\$4,615,815
Total	\$6,940,946

Highlights

Program Operations

- Started the first phase of provincial well-baby screening in October 2007. The first phase sites (covering approximately 40 per cent of births in the province) have fully implemented their screening programs. Second phase of implementation began in February 2008.
- Developed the Guide-by-Your-Side program, designed to provide parent-to-parent support for parents of newly diagnosed babies with hearing loss. The program provides emotional support and unbiased information to families and helps them through the challenging time following diagnosis.
- Expanded membership of the program's health authority council to include Aboriginal representation and developed a working group to ensure that all BCEHP resources, assessments and services are accessible to Aboriginal children and their families.
- Developed standardized guidelines for medical assessment of children with sensorineural hearing loss with the BCEHP medical advisory group and the BC Otolaryngology Society. These guidelines ensure that the medical assessment of BCEHP infants with hearing loss is expedited to ensure there is no delay in the fitting of amplification, if chosen by the family.

Training

- Provided provincial screening training prior to each phase of well-baby screening. Two sessions were held, with approximately 80 screeners receiving training.
- Held the second provincial training session for early intervention service providers with about 80 providers from across the province. The training included Aboriginal infant development consultants from communities across the province as well as speech-language pathologists and infant development consultants. The session provided orientation to the BCEHP and the intervention standards and guidelines as well as education on specific topics related to speech, language, and listening development therapy with infants with hearing loss. Leaders from the Aboriginal community provided training on working with Aboriginal families.
- Held a six-day training session with 35 specialized service providers on the SKI-HI intervention curriculum.
- Held a workshop on "Coaching – the Art of Engaged Dialogue" for 25 coordinators and screening supervisors.
- Held an infant amplification workshop to continue to develop the knowledge and capacity of audiologists in the fitting of infant amplification to manage the challenges that can arise during the fitting of hearing aids on infants.
- Held a workshop for audiologists in infant diagnostic sites to ensure their skills and processes are up to date.
- Completed a privacy impact assessment for the program's interim electronic system.

Capital and Equipment Investments

- Provided hearing equipment for an additional 87 children as part of the BCEHP Hearing Equipment Plan (an investment of \$124,000).
- BCEHP moved from a manual, paper-based data system to an electronic one. A Request For Proposals (RFP) process was successfully completed and a vendor hired to develop the final system. Currently, an interim system is being used at all screening sites. The final web-based system, which is scheduled for implementation in late 2008 or early 2009, will have increased capacity for reconciliations with Vital Statistics and modules for supply management, intervention services and increased capacity in some of the audiology modules.
- Speech, language, and auditory assessment tools and therapy materials specific to infants with hearing loss were provided to designated service providers in regions across the province, at a cost of \$160,000.

Communications

- Completed the development of the BCEHP Communities of Practice site. The site went live on June 1, 2007. The site currently has nearly 500 users representing a range of service providers from the health authorities, agencies funded by the Ministry of Children and Family Development, BCEHP advisory groups and others. The site is used to share program information, seek clinical advice from peers, stay current on best practice and BCEHP standards and guidelines. It facilitates team participation and enables group members in all areas of the province to consult and collaborate with their peers.
- Developed a family path document for families of children with hearing loss. The document assists families by establishing key check points for processes and experiences they will go through with their child as part of BCEHP. This document represented two years of consultation and consensus building across the province on intervention service standards and process.
- Updated program materials for parents based on Aboriginal community feedback and to reflect changes as a result of the beginning of screening of well babies.
- Worked with the program's parent advisory and intervention advisory groups to develop updated information for the program website.





Northern Health Authority

Within the Northern Health Authority, screening at the NICU in Prince George Regional Hospital (the health authority's only NICU) began in September 2006. Well baby screening began in November 2007.

Northern Health Authority stats for early hearing screening (to end of March 2008) include:

	NICU Babies	Well Baby	Total
Total number of babies screened	329	415	744
Babies that passed screening	257	374	631
Babies needing further testing	3	2	5
Babies with confirmed permanent hearing loss	2	0	2

Source: British Columbia Early Hearing Surveillance Tool (BEST)

The relationship between the hospital and the public health staff is excellent, and the program is running very well. The team is very appreciative of all the support they have been given throughout the planning and implementation of screening to date.

There have been few missed babies on the maternity ward (ranging from 18 in December down to eight in January). Most misses are due to early discharge or because the baby was not sufficiently settled to enable the screening to take place. Almost all were subsequently followed up in the clinic.

The remaining birthing sites across Northern Health will be rolled out during 2008 and 2009. The primary challenge that the health authority has faced was the difficulty recruiting sufficient audiology resources, including their BCEHP regional coordinator. With the arrival of a person to take on the regional coordinator position in summer 2008, the health authority plans to have well baby screening fully implemented by early 2009.





Interior Health

Interior Health Authority

Central to the success of early hearing screening in the Interior Health Authority was the ongoing engagement and support from physicians and acute care colleagues. In addition, community support was demonstrated through generous donations from the Lions Club and Quota International.

Interior Health Authority stats for early hearing screening (to end of March 2008) include:

	NICU Babies	Well Baby	Total
Total number of babies screened	441	868	1,309
Babies that passed screening	370	750	1,120
Babies needing further testing	5	6	11
Babies with confirmed permanent hearing loss	3	3	6

Source: BEST

Specific achievements include:

- Successful screening in the Interior Health Authority's NICUs in Kamloops and Kelowna since November 2006 and February 2007 respectively.
- Phase one well baby screening sites of Kamloops, Williams Lake, 100 Mile House and Cranbrook rolled out between October 14 and November 7, 2007.

- Phase two sites (Creston and Bountiful, Vernon, Kelowna and Penticton) are finalizing their planning and will roll out by the end of June 2008.
- Kamloops acted as a training site for screeners and has been an extremely valuable asset.
- Aboriginal engagement has been a priority, including participation in the Aboriginal Health Forum in Kamloops in November 2007 to elicit feedback on key areas of program development.

In addition to continuing with rolling out well baby screening in the health authority and intervention services planning, the focus is now on transitioning from old practices and integrating the BCEHP into standard practice.

The Interior Health Steering Committee would like to sincerely thank all participants in the Interior region for all their hard work, long hours and dedication to the very detailed planning of this complex initiative and for making excellent progress in the planning and implementation of this critical program.

Vancouver Coastal Health Authority

In the Vancouver Coastal Health Authority, early hearing screening services began in 2006 at NICUs in three hospitals – Lion’s Gate Hospital, St. Paul’s Hospital, and Richmond Hospital.

In 2007 hearing screening began in the maternity wards of the same hospitals, and community-based screening programs began on the Sunshine Coast, Powell River, and in Bella Coola. Screening is also provided for home births throughout the region.

Vancouver Coastal Health Authority stats for early hearing screening (to end of March 2008) include:

	NICU Babies	Well Baby	Total
Total number of babies screened	381	1,432	1,813
Babies that passed screening	322	1,242	1,564
Babies needing further testing	10	24	34
Babies with confirmed permanent hearing loss	5	6	11

Source: BEST

Vancouver Coastal Health Authority was a key participant in the development of the provincial electronic data system. All Vancouver Coastal’s BCEHP hearing screeners and audiologists at all sites are trained and using the system.

The provincial program was implemented smoothly in Vancouver Coastal, due to extensive internal and external communications. The program has also been well received by parents and health care professionals.





Fraser Health Authority

In the Fraser Health Authority, newborn hearing has been successfully implemented in all four NICUs (Burnaby, RCH, SMH, MSA) and six (Burnaby, RCH, SMH, MSA, Chilliwack, Peace Arch) of the region's eight birthing hospitals. Currently, there are 16 staff members (speech and hearing assistants, audiometric technicians, and screeners) doing hearing screening across the health authority.

Fraser Health Authority stats for newborn hearing screening (to end of March 2008) include:

	NICU Babies	Well Baby	Total
Total number of babies screened	1,437	2,806	4,243
Babies that passed screening	1,065	2,370	3,435
Babies needing further testing	53	117	170
Babies with confirmed permanent hearing loss	9	5	14

Source: BEST

The remaining two birthing hospitals (Langley and Ridge Meadows) are scheduled to roll out in June 2008. As part of this rollout, three more audiometric technicians will be hired.

Community newborn hearing screenings are available at eight of the health authority's public health units (Chilliwack, Abbotsford, Langley, Maple Ridge, New West, Burnaby, North Delta, Guildford) and diagnostic assessments are done at four sites (Surrey Memorial Hospital, Chilliwack, Burnaby and North Delta). The health authority currently has six audiologists that are trained and conducting diagnostic ABR testing at the four diagnostic sites.

The Fraser Health Authority would like to thank all those involved for their support and commitment to the implementation of the BCEHP as we look forward to the rollout of our last two hospitals, the implementation of an ADT system, and the interfacing between screening equipment and the provincial electronic data system in the coming year.



Vancouver Island Health Authority

Within the Vancouver Island Health Authority, screening was in place at Victoria General Hospital and Saltspring Island prior to the beginning of the provincial screening program. BCEHP protocols and equipment were implemented at the NICU in Victoria General Hospital and Nanaimo Regional Hospital in June 2006 and for the screening of all babies at Victoria General Hospital, Nanaimo Regional Hospital and Saltspring Island in November 2007. Courtenay hearing clinic also began providing community screenings as follow-up for babies born at these sites but returning to North Island in June 2006. In February 2008 screening for all newborns began at St. Joseph's General Hospital in Courtenay, with Campbell River General Hospital, Port Hardy and Port McNeill following in March 2008.

Vancouver Island Health Authority stats for early hearing screening (to end of March 2008) include:

	NICU Babies	Well Baby	Total
Total number of babies screened	724	1,652	2,376
Babies that passed screening	562	1,431	1,993
Babies needing further testing	12	14	26
Babies with confirmed permanent hearing loss	2	6	8

Source: BEST

Screening in the health authority is performed by a variety of staff, depending on the local birthrate and proximity to a hearing clinic. In Victoria, Courtenay and Nanaimo, screening is performed by hearing clinic technicians. In Campbell River, health unit aides from the local public health unit have been trained to perform newborn hearing screening as part of their overall participation in hearing and vision screening programs. In Port Hardy, Port McNeill and Saltspring Island, public health nurses perform the screening as part of their provision of perinatal follow-up services to newborns and their families.

In the more remote communities, the screening technology chosen is Automated Auditory Brainstem Response, in order to keep the referral rate as low as possible and to reduce the number of families who need to travel for diagnostic audiological assessment.

The remaining birthing sites of Port Alberni and Duncan will be rolled out during the next phase of BCEHP implementation, between May and July 2008.

In addition to screening, new diagnostic equipment has been obtained and specialized training provided through BCEHP for designated audiologists, allowing for diagnostic ABR testing of infants in Nanaimo and Victoria. All hearing clinics have also had additional training on the specialized testing and fitting requirements for infants needing hearing aids. Intervention services are also being consulted and provided with specific training through BCEHP on family communication support for infants with hearing loss.

Early Hearing Screening in BC today

The BC Early Hearing Program is still being implemented across the province. However, significant progress has been made since 2005.

The first baby was screened through the program on July 1, 2006, and the implementation of screening at 13 NICU sites was completed in February 2007. The first phase of screening all newborns in the province began in October 2007, and soon approximately 75 per cent of the 42,000 babies born annually will have access to screening either in hospital prior to discharge or in the community if they don't get screened in the hospital or are born at home.

To date, more than 11,000 babies have been screened through the program, and over 40 babies with permanent hearing loss have been found. These babies and their families are now receiving support and information from BCEHP.

Currently, BCEHP is screening about 85 per cent of the babies that are registered at the hospital screening sites. Once the final British Columbia Early Hearing Surveillance Tool (BEST) electronic data system is in place and the reconciliation with Vital Statistics can occur, the program will reconcile with the provincial birth statistics.

The statistics provided are a snapshot in time but indicate that the expected program targets for early implementation are being met.

Provincial

	NICU Babies	Well Baby	Total
Total number of babies screened*	4,433	7,216	11,649
Babies that passed screening	3,373	6,190	9,563
Babies needing further diagnostic testing	103	163	266
Babies with confirmed permanent hearing loss	21	20	41

Source: BEST

* Note: Provincial numbers include home births, unknown birth location and babies born out of province

Provincial Health Services Authority

	NICU Babies	Well Baby	Total
Total number of babies screened	1,100	20	1,120
Babies that passed screening	788	11	799
Babies needing further diagnostic testing	20	0	20
Babies with confirmed permanent hearing loss*	0	0	0

Source: BEST

* PHSA babies are counted in their home health region. There have been 9 babies (NICU) born at BCWH who have been found to have hearing loss.



Photo: Perry Zavitz

Monitoring and Evaluating BCEHP

The British Columbia Early Hearing Surveillance Tool (BEST) allows professionals who provide services to families as part of BCEHP to record screening outcomes, diagnostic assessments and intervention information. The interim system is functional for the implementation of well baby screening across the province, and a final system will be in place by 2008.

The system can be used to monitor each child's access to services for all phases of the program and to enable quality assurance and program evaluation. To date, the evaluation framework and the core outcome-based evaluation questions have been developed.

Key evaluation questions include:

- What proportion of the infants with the target disorder achieve or surpass language performance levels predicted by current best evidence at age of exit from BCEHP?
- What proportion of newborns in BC are successfully screened in a timely manner?
- What proportion of screening referrals in BC are successfully diagnosed in a timely manner?
- To what extent do young children with hearing loss confirmed by BCEHP receive appropriate and timely medical management?
- To what extent are hearing devices being appropriately fitted in a timely manner?
- To what extent do young children with hearing loss receive appropriate and timely early intervention services?



Future Considerations and Challenges

As a large, complex program spanning BC's health authorities, government ministries and many stakeholders, the BC Early Hearing Program faces some challenges as it continues to be implemented across the province. The program is on track to have fully implemented province-wide screening of newborns by early 2009, with over 95 percent of BC births (including home and hospital) having access to screening by September 2008.

Hearing loss is a low-incidence disorder that requires specialized services. These services are most easily developed where there is sufficient caseload to develop expertise and best practice. Providing timely access to BCEHP services for families living in the more remote areas of the province continues to be difficult to address because of this challenge.

Prior to the introduction of the provincial screening program, children with hearing loss and their families experienced widely varying service levels, service types and a lack of consistent standards of practice across a wide span of service providers. There has been development of practice standards, protocols and materials to help service providers and families understand service expectations.

The BCEHP has provided coordination and leadership, resulting in greater equity of service and better access for families. The program strives to provide a seamless continuum of family-centred care, with the capacity to deliver specialized and intensive diagnostic and intervention services that can be properly evaluated and reported on.

Without ongoing strong centralized leadership and direction, early hearing programs can fragment, with local initiatives developing and local practice varying as a result. This can reduce and undermine the equity and overall effectiveness of the program. If there are large regional differences in services and practice, a provincial program is not able to be effectively evaluated.

To date, the success of the program has been the result of much hard work and collaborative effort by many parties. Over the next two years the sustainability of the program will be important to maintain equitable access for all BC families.

The program also faces challenges with respect to recruitment and retention. These issues have become obvious in some health authorities, where despite focused efforts, it has taken more than two years to recruit for some positions. Concerns have been raised by BCEHP's intervention service providers about the difficulty recruiting and retaining sufficient speech-language pathologists in both the health regions and MCFD-funded agencies.

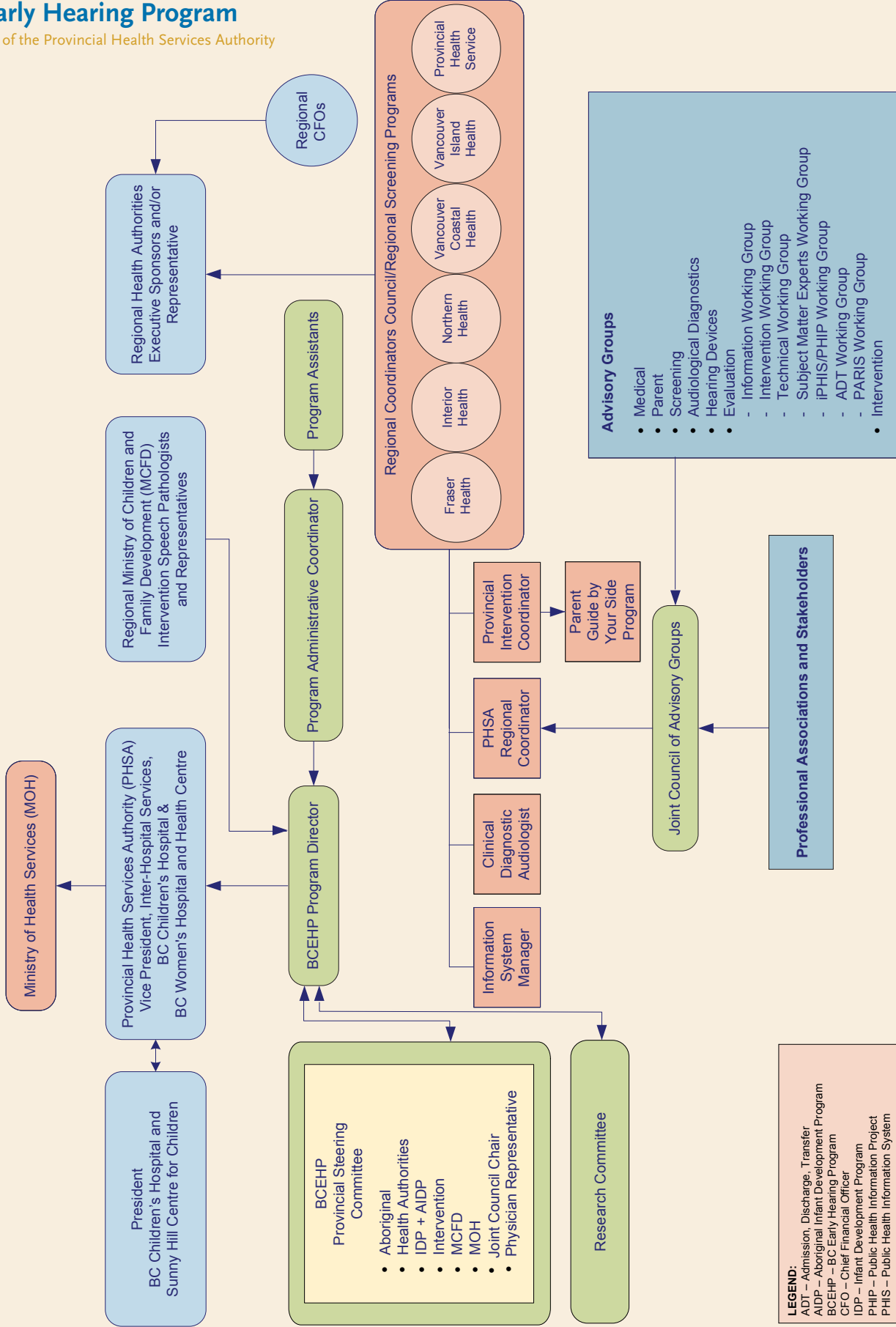
As the BC Early Hearing Program achieves its goal of full province-wide screening of all newborns, there is likely to be a direct impact on the availability and use of resources. The program has come very far in the past three years and can continue to improve and develop further with the right direction and support.



Organizational Overview

BC Early Hearing Program

A service of the Provincial Health Services Authority



LEGEND:
 ADT – Admission, Discharge, Transfer
 AIDP – Aboriginal Infant Development Program
 BCEHP – BC Early Hearing Program
 CFO – Chief Financial Officer
 IDP – Infant Development Program
 PHIP – Public Health Information Project
 PHIS – Public Health Information System

2008

For more information on the BC Early Hearing Program
visit our website at www.phsa.ca/earlyhearing

