Universal Newborn Hearing Screening and Intervention Act of 2009
R.A. 9709

Manual of Operations and Procedures

Revised January 18, 2022
Second Edition

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National Technical Working Group on Universal Newborn Hearing Screening (UNHS)
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FHO Conference Room, 2nd Floor of Bldg. 14, DOH Compound, Sta. Cruz, Manila

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National Technical Working Group on Universal Newborn Hearing Screening
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National Technical Working Group on Universal Newborn Hearing Screening
October 22, 2020
Via Zoom

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FOREWORD

MALACAÑAN PALACE
MANILA

MESSAGE

My warmest greetings to the **Newborn Hearing Screening Reference Center (NHSRC)** as it publishes its updated ***Manual of Operations and Procedures for the Universal Newborn Hearing Screening and Intervention Program***.

Ensuring the health and well-being of our people is part of our vision of a healthy and globally competitive Philippines. I thus commend the NHSRC for its invaluable contribution in the adequate care of newborn Filipinos through this initiative.

I am hopeful that this document will promote greater awareness and ensure timely interventions in preventing hearing loss and impairment among infants. May you also pursue timely research and development for the advancement of health services in your specialized field.

With your active participation in nation-building, I am confident that we can achieve a healthier and stronger future for all Filipinos.

Congratulations on this project and I wish you the best.

RODRIGO ROA DUTERTE

MANILA
October 2021

THE PRESIDENT OF THE PHILIPPINES

Republic of the Philippines
Department of Health
OFFICE OF THE SECRETARY

FOREWORD FROM THE SECRETARY OF HEALTH

The Department of Health (DOH) commends the University of the Philippines Manila - National Institutes of Health, particularly its Newborn Hearing Screening Reference Center, for its ceaseless drive to fulfill its humanist duties. This is concretised in its efforts to review, update, and refine the protocols and processes stipulated in the Manual of Operations and Procedures (MOP) of the Universal Newborn Hearing Screening for the Prevention, Early Diagnosis, and Intervention of Hearing Loss.

Newborn screening, which facilitates the early detection and management of neonatal issues that have potentially debilitating consequences, has value that ripples throughout the entirety of a person's life. As medical professionals, our practice should always be directed to securing the wellbeing of our fellow humans, including the earnest need to give them every opportunity to fully enjoy the function of their sensory faculties.

It is in this light that the periodic and timely updating of the MOP on Universal Newborn Hearing Screening for the Prevention, Early Diagnosis, and Intervention of Hearing Loss continually proves necessary and vital. As individuals, our sense of hearing is important not only for purely functional purposes, but also for the relishing of artistic works. Furthermore, let us not forget that our ability to hear also contributes to our power to listen. This is why we must not let preventable causes of hearing loss go unresolved. Let us do all that we can to ensure that we detect these causes early, and act so as not to let them cause any further detriment to the development of an individual.

As we continue engaging our minds, hands, and ears in the scientific and medical service of our fellow humans, let us continue working together to deliver a better standard of public health for the Filipinos. May our tireless pursuit of knowledge contribute to a world where every human being can live comfortable lives, supported by a health system that can capably care for their medical needs, even at their earliest breaths.

Even as the world continues to develop at a relentless pace, may we hold fast to our duty to service, and our duty to humanity.

FRANCISCO T. DUQUE III, MD, MSc
Secretary of Health

University *of the* Philippines

OFFICE OF THE PRESIDENT

MESSAGE FROM THE PRESIDENT

On behalf of the University of the Philippines System, I congratulate the UP Manila National Institutes of Health's Newborn Hearing Screening Reference Center (NHSRC), headed by its director, Dr. Maria Rina Reyes-Quintos, on its tireless efforts to refine and build upon the Manual of Operations (MOP) for the Newborn Hearing Screening Program (NHSP).

Republic Act 9709 established a Universal Newborn Hearing Screening Program for the early prevention, early diagnosis, and prevention of hearing loss. Initially, the MOP for the NHSP came out of the Write Workshop on Newborn Hearing Screening. The workshop involved participants from the Philippine National Ear Institute (PNEI), the NHSRC, the Philippine Society of Otolaryngology-Head and Neck Surgery (PSO-HNS)- Philippine Academy of Neutorology, Otology and Related Sciences (PANORS), The Department of Health (DOH) hospitals and central office, and the Central for Health Development (CHDs).

In addition, other government agencies were also consulted—The Department of Education, The Philippine Health Insurance Corporation, National Council on Disability Affairs, and other institutions, private hospitals, health professional societies, and support groups. Interestingly, UP Manila Chancellor Carmencita Padilla, NIH Executive Director Eva Cutiongco-dela Paz, UP College of Medicine Dean Charlotte Chiong, and NHSRC Director Reyes-Quintos were active proponents of the workshop.

It is not surprising that after 12 years since the signing of RA 9709, and 5 years since the last update of the NHSP MOP, UP Manila NIH-NHSRC worked on harnessing the MOP, a comprehensive guide, and reference for protocols and processes for service providers and health workers engaged in the screening of newborns for hearing disorders, training new health workers, and the application of intervention strategies.

The MOP continues to be a vital converging point towards our determination to mitigate hearing loss and impairment among newborns. I am optimistic that our health professionals will increasingly make full use of this updated edition to further their practice and enhance the country's overall state of health care.

Tauspuso po ang aking pasasalamat sa UP Manila, sa NIH at sa NHSRC sa inyong walang humpay na pagkukusa upang ipalaganap ang wastong pangangalaga sa kalusugan sa pinakamalayong sulok ng ating bansa.

Mabuhay ang UP Manila! Mabuhay ang NIH! Mabuhay and NHSRC!

DANILO L. CONCEPCION
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UNIVERSITY OF THE PHILIPPINES MANILA
The Health Sciences Center

MESSAGE

Republic Act 9709 is a long-awaited law that recognized the role and importance of newborn hearing screening in the prevention, early diagnosis, and intervention of hearing loss. The law stipulates these particularly for infants and children who are most vulnerable within the first six years of life.

The law was implemented through the Manual of Operations (MOP) that contained the Implementing Rules and Regulations, protocols, and procedures for use by the healthcare workers. It would have been smoothly and continuously implemented with minor adjustments had the pandemic not struck.

The COVID-19 crisis has made it very difficult for hearing-impaired patients to access services. As a result, the guidelines have been revised, including the tasks of each service provider outlined in the MOP.

The guidelines needed modifications due to altered national and global situations. Measures to mitigate patients' hampered access to screening and intervention services have to be carried out. Screening and assessment are very important, even for families with no history of hearing problems as most babies born with hearing loss are born to parents with normal hearing.

This updated Manual of Operations is a comprehensive guide and reference material for service providers and health workers who are engaged in the newborn hearing screening program; be it actual screening, training of health workers, or application of intervention strategies. These services while protecting all those involved, have to be equally guaranteed.

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PREFACE

This 2021 version of the RA 9709 Manual of Operations reflects the numerous changes, improvements and innovations that were made in response to the latest research and technology available to improve the implementation process of the Newborn Hearing Screening and Intervention Act of 2009.

This manual is for all the stakeholders of newborn hearing screening, most especially those at the forefront of performing the task of hearing screening, managing hearing centers and those who shall ensure that the hearing screening program requirements and protocols are followed in the local and national level. Majority of the chapters from the previous MOP have been revised such the reader is advised to review the entire document to be updated with the changes.

Sincere gratitude is extended to all the staff, consultants, individuals, and institutions who were involved in the arduous task of improving this 2021 version of the RA 9709 Manual of Operations.

Maria Rina T. Reyes-Quintos, MD, MClinAud PhD
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We would like to acknowledge the following for their support and contributions:

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- Dr. Josefino G. Hernandez, chair of the UP-PGH Department of Otorhinolaryngology.
- National Telehealth Center, headed by Director Dr. Raymond Francis R. Sarmiento, for the development of the Electronic National Newborn Hearing Screening Registry

We would also like to acknowledge the writers and contributors of the previous edition of the RA 9709 MOP:

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LIST OF TABLES, FIGURES AND APPENDICES

DEFINITION OF TERMS

1. **AABR –** shall refer to Automated Auditory Brainstem Response, an accepted method of hearing screening
2. **Certification –** shall refer to a formal certification issued by the DOH and NHSRC - NIH to newborn hearing screening personnel and facilities
3. **Certifying Course –** refers to the Category A Newborn Hearing Screening Certifying Courses given by the Newborn Hearing Screening Reference Center and the Department of Health
4. **Health institutions** - shall refer to hospitals, health infirmaries (to be checked with DOH licensing office), health centers, lying-in centers or puericulture centers with obstetrical and pediatric services, whether public or private.
5. **Independent NHSCs** – NHSCs which are within general health facilities, and may exist primarily for newborn hearing screening alone, or may include other ambulatory ENT and audiologic services
6. **Infant** – refers to babies less than 12 months old
7. **Intervention -** shall refer to any service rendered to an infant diagnosed with hearing loss ranging from counseling, diagnosis, and providing hearing aids and language therapy to the performance of any medical procedures for the correction of hearing loss.
8. **IRR**- refers to Implementing Rules and Regulation of RA 9709
9. **National Technical Working Group (NTWG)** – shall refer to a committee defined by DOH DPO 2014-2433 under the Family Health Office – Women, Children and Family Cluster.
10. **Newborn Hearing Screening Registry (NHSR) -** shall refer to an organized body of information related to newborn hearing screening.
11. **Newborn-** shall refer to an infant from the time of complete delivery to twenty-eight days old.
12. **Newborn Hearing Screening (NHS) -** shall refer to an objective, physiological procedure performed on a newborn for the purpose of determining if the newborn has possible hearing impairment.
13. **Newborn Hearing Screening Reference Center (NHSRC)** - shall refer to the central facility at the National Institutes of Health that defines testing and follow-up protocols, maintains an external laboratory proficiency testing program, oversees the national testing database and case registries, assists in training activities in all aspects of the program, and oversees content of educational materials.
14. **Newborn Hearing Screening Center (NHSC)** - shall refer to a facility equipped with a newborn hearing screening and audiologic diagnostic evaluation laboratory that complies with the standards established by the NIH as recognizes by DOH and administers the required laboratory tests and implements recall and follow-up programs for infants with hearing loss.
15. **NIH -** shall refer to the National Institutes of Health
16. **OAE** – shall refer to Otoacoustic Emissions testing, transient evoked or distortion product, an accepted method of hearing screening
17. **Referral -** shall refer to an act of sending a patient to another service provider within the network for continuation of care.
18. **Universal Newborn Hearing Screening Program (UNHSP) -** shall refer to the program developed to carry out hearing screening for all newborns in the Philippines and to provide adequate interventions for infants with congenital hearing loss.

ACRONYMS

AABR	Automated Auditory Brainstem Response
ASSR	Auditory Steady State Response
BEmONC	Basic Emergency Obstetric and Newborn Care
CoNHScA	Collaboration on Newborn Hearing Screening Advocacy
DOH	Department of Health
DPOAE	Distortion Product Otoacoustic Emissions
DSHS	Department of State Health Services
ECCD	Early Childhood and Care Development
ENT	Ear, Nose and Throat
ENNHSR	Electronic National Newborn Hearing Screening Registry
FDA	Food and Drug Administration
HI	Hearing Impairment
LGU	Local Government Unit
NHS	Newborn Hearing Screening
NHSD	Newborn Hearing Screening Database
NHSC	Newborn Hearing Screening Center
NHSP	Newborn Hearing Screening Personnel
NHSRC	Newborn Hearing Screening Reference Center
NICU	Neonatal Intensive Care Unit
NIH	National Institutes of Health
NTC	National Telecommunications Commission
NTWG	National Technical Working Group
NSC	Newborn Screening Center
OAE	Otoacoustic Emissions
PANORS	Philippine Academy of Neurotology, Otology and Related Sciences
PSO-HNS	Philippine Society of Otolaryngology Head & Neck Surgery
QOL	Quality of Life
RA	Republic Act
RHU	Rural Health Unit
RMT	Registry Monitoring Tool
SNR	Signal to Noise Ratio
TEOAE	Transient Evoked Otoacoustic Emissions
UNHS	Universal Newborn Hearing Screening
UNHSP	Universal Newborn Hearing Screening Program

I. INTRODUCTION

A. HISTORY

Hearing loss is known to be one of the most common disabilities among newborns. Prevalence studies worldwide revealed that approximately 1-4 infants per 1,000 live births are affected.[1–5] Hearing is necessary in speech development as well as mental growth. Early detection of hearing loss and intervention is crucial in addressing this disability.[6–8] With this information at hand, the Philippine National Ear Institute (PNEI) initiated research in newborn hearing screening since the year 2000.[9,10] In a study conducted in a rural population in Bulacan in 2004, it has been revealed that 1 per 724 babies are born with bilateral severe to profound hearing loss, thus, 0.14% or 8 babies born daily are estimated to have profound deafness in our country alone.[8]

In 2007, a Task Force on Newborn Hearing Screening was convened by PSO-HNS with the PNEI working group, which rigorously researched, analyzed and considered the benefits of the Universal Newborn Hearing Screening Program (UNHSP) for further recommendation and implementation. It was in the same year that the first annual Collaboration on Newborn Hearing Screening Advocacy (CoNHScA) was held, where activities, practices and experiences of the UNHSP in various communities were conveyed.

With the numerous endorsements and advocacy programs that were put forward to emphasize the importance of early detection and intervention for infants through UNHS, subsequent legislative efforts played an important role by emphasizing the need for the appropriate intervention and providing hearing screening access across the nation. It was in January 2008 when Senator Loren Legarda was informed of PNEI studies related to UNHS as well as the Task Force Efforts and the 2007 Position Paper. Support from the Department of Health, headed by the former Secretary Francisco T. Duque, III was later sought through a meeting with PSO-HNS and PANORS in May 2008.

The Senate Bill No. 2390 or the Universal Newborn Hearing Screening and Intervention Act of 2008 was officially filed and submitted on June 10, 2008 by its authors, Senators Miriam Defensor Santiago, Loren B. Legarda and Pia S. Cayetano. Almost exactly a year after, the Conference Committee Report recommending that SBN-2390 consolidated with HBN-2677 were approved by the Senate and the House of Representatives. Consequently, enrolled copies of the consolidated version of SBN-2390 and HBN-2677, sponsored by Congressmen Narciso D. Santiago III and Arthur Y. Pingoy, Jr. and signed by the Speaker and Secretary General of the House of Representatives were received by the Senate and were sent to the Office of the President of the Philippines for signature and approval.

On August 12, 2009, Republic Act 9709 also known as the Universal Newborn Hearing Screening and Intervention Act was approved and signed into law by the President of the Philippines, Gloria Macapagal Arroyo (Appendix A). RA 9709 establishes a UNHS program for the prevention, early diagnosis and early intervention of hearing loss and requiring all newborns to have access to hearing screening. With this successful ratification, the drafting of the Law's Implementing Rules and Guidelines was done under the supervision of former Health Secretary - Esperanza Cabral and close collaboration with PNEI and other stakeholders. On June 28, 2010, the Implementing Rules and Regulations (IRR) of RA 9709 was approved, signed and disseminated as DOH Administrative Order 2010-0020 (Appendix B).

Philhealth circular No. 011-2011 was signed by the President and CEO of Philhealth, Dr. Rey B. Aquino on August 5, 2011 (Appendix C). The mechanism for Philhealth claims was stated in this circular.

On March 31, 2014, the guidelines for Universal Newborn Hearing Screening Program Implementation or DOH Circular No. 2014-0150 was published. The contents of which was the original Manual of Operations of RA 9709.

On May 22, 2014, DOH Department Personnel Order No. 2014-2433 (Appendix D) was published creating a National Technical Working Group (NTWG) on the implementation of Universal Newborn Hearing Screening Program under the Family Health Office – Women, Children and Family Cluster. The main role of the NTWG is to provide strategic directions for the NHSP that can be utilized for planning. This revised Manual of Operations is the output of two National Technical Working Group meetings held on October 10, 2014 and September 10, 2015.

On May 30, 2016, NHSRC was able to start distributing registry cards nationwide.

By 2018, we had a total of 579 category A centers, which was 83% of the set target, with more than 1500 screening personnel certified nationwide. It was also this year that the migration of the database to a local server housed in UP Manila was established.

The members of the NTWG meet annually to discuss various issues regarding the implementation of the program such as funding, center compliance, as well as fees and charges for newborn screening services. On August 8, 2019, the NTWG discussed in detail price cap regulations to the charging fees of newborn hearing screening services. It was during this meeting that it was decided that each region shall have 2 coordinators for newborn hearing screening whose role shall primarily be to aid in the regional implementation of NHSP. A separate certification for facilities and personnel was also discussed. The revised MOP is a result of all these NTWG meetings.

B. MILESTONES

Table 1. Milestones of the Newborn Hearing Screening Program

DATE	MILESTONE
2007	Task Force on Newborn Hearing Screening convened by PSO-HNS with PNEI working group First annual Collaboration on Newborn Hearing Screening Advocacy (CoNHScA)
January 2008	PNEI studies related to UNHS, PSO-HNS Task efforts and Position Paper forwarded to Senator Loren Legarda
April 2008	Technical working group convened by the senate for UNHS Program legislation
May 2008	PSO-HNS meeting with DOH Secretary Francisco Duque to reiterate support for UNHS Program legislative efforts
June 10, 2008	Senate Bill 2390-Prepared and submitted jointly by the Committee(s) on Health and Demography and Finance with Senator(s) Miriam Defensor Santiago, Loren B. Legarda and

	Pia S. Cayetano as author(s) per Committee Report No. 71, recommending its approval in substitution of SBNOs. 1209 and 1372
October 2, 2008	Senate Bill 2390 forwarded to the House of Representatives
June 2009	Bicameral approval
July 15, 2009	SBN-2390 and HBN-2677 sent to the Office of the President of the Philippines for signature and approval
August 12, 2009	RA 9709 approved and signed into law by the President of the Philippines, Gloria Macapagal Arroyo
June 28, 2010	RA 9709 Implementing Rules and Regulations approved and signed by then DOH Secretary Esperanza Cabral as Administrative Order 2010-0020
December 2010	Drafting of the Manual of Operations with the Department of Health
August 05, 2011	Philhealth issues Circular 011-2011 indicating that Newborn Hearing Screening is included in the Newborn Care Package
March 31, 2014	DOH publishes Circular No. 2014-0150 indicating the Guidelines for Universal Newborn Hearing Screening Program Implementation
May 22, 2014	DOH publishes Department Personnel Order No. 2014-2433 creating a National Technical Working Group (NTWG) on the implementation of Universal Newborn Hearing Screening Program under the Family Health Office – Women, Children and Family Cluster
May 30, 2016	Nationwide distribution of registry cards
August 8, 2019	NTWG decided upon the regulation of price caps for services related to the Newborn Hearing Screening, and the separation of certification for personnel and facility.

C. VISION AND MISSION

1. *Vision*

   "No Filipino newborn shall be deprived of a functional sense of hearing."
   Every newborn shall be given access to physiologic hearing screening examination prior to hospital discharge or at the earliest feasible time for the detection of hearing loss.

2. *Mission*
   - To have all newborns undergo hearing screening prior to hospital discharge or within three months if born outside the hospital;
   - To provide an accessible, effective and efficient system of services;

- To implement time-bound intervention: hearing screening within the first month, hearing evaluation within the third month and early intervention by the sixth month;
- To provide the necessary services for hearing habilitation/rehabilitation;
- To monitor the incidence and prevalence of hearing loss in the Philippines;
- To promote awareness and information campaign to the public about hearing loss.

D. GENERAL POLICY STATEMENT

The Department of Health (DOH), assisted by its technical arm for the development and implementation of the Universal Newborn Hearing Screening Program, the Newborn Hearing Screening Reference Center (NHSRC) based at the National Institutes of Health (NIH), University of the Philippines Manila, promulgates the following policies and principles to be observed by various stakeholders in the national implementation of the Universal Newborn Hearing Screening and Intervention Act (R.A. 9709):

1. Universal newborn hearing screening shall be an integral part of the child, adolescent and maternal health programs and services.
2. It shall be a standard and routine procedure for all newborns born in public and private health and hospital facilities.
3. Health practitioners shall fully inform parents, legal guardians or other caregivers of newborns about the importance, benefit, conduct, results, implications, and availability of newborn hearing screening.
4. Newborn hearing screening services available in all health facilities nationwide shall be supplemented with efforts necessary to increase the demand for these services.
5. Although fees for the newborn hearing screening may be borne by parents or guardians, the state may introduce financing mechanisms to make newborn hearing screening accessible and affordable. Government health institutions both national and local, and non-government organizations are therefore highly encouraged to support all aspects of implementation of the program.

E. GOALS AND STRATEGIC DIRECTIONS

1. *Goals*
    - Implement an effective system to have all newborns undergo hearing screening and increase the proportion of infants who are screened for hearing loss within their first month of life;
    - Identify hearing loss through audiologic evaluation among infants within three months of age;
    - Implement early intervention services among infants diagnosed with hearing loss within six months of age;
    - Ensure the establishment of excellent, reliable and quality-driven newborn hearing screening centers with qualified personnel;
    - Ensure the maintenance of a feasible and effective network of newborn hearing screening centers from Category A (screening) to Category B (confirmatory diagnosis) and to Category C and D (early and definitive interventions);
    - Ensure accurate recording of NHS data, monitoring and tracking of hearing-impaired newborns and babies for appropriate referral to appropriate NHSCs;
    - Ensure universal accessibility and affordability of newborn hearing screening services.

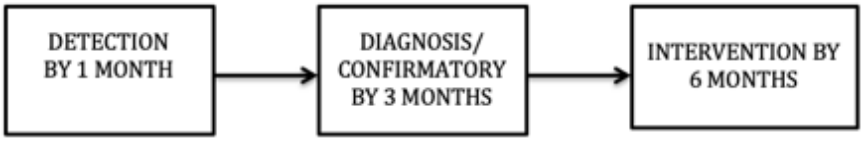

Figure 1. Goals of Newborn Hearing Screening Program, adapted from the Joint Committee on Infant Hearing (JCIH) Position Statement 2019[11]

2. *Strategic Directions*
    - Identify standards and policies for hearing screening and follow-up;
    - Determine effective ways of implementing standards and policies;
    - Collaborate with families, local government units, hospitals, health centers and other stakeholders;
    - Acquire financial and funding support from government agencies and non-government organizations;
    - Educate and disseminate information among key stakeholders (e.g. trainings, media);
    - Monitor, track and evaluate hearing screening data to generate research, formulate policies and improve the program;
    - Generate ways to improve accuracy and quality of hearing screening data;
    - Devise a sustainable system for the program;
    - Define the specific requirements in establishing and maintaining newborn hearing screening centers (Category A, B, C, D) for stakeholders;
    - Define the rules and guidelines on the use of the Newborn Hearing Screening signage and screener identification card.
    - Define the rules, guidelines and process of procurement and distribution of newborn hearing screening registry monitoring tools (e.g. registry cards, sticker seals);
    - Define the rules, guidelines and process of newborn hearing screening data reporting, tracking and transmission to NHSRC;
    - Define the maximum allowable fee for newborn hearing screening services which include otoacoustic emissions testing and/or automated auditory brainstem response audiometry, counseling, data handling and transmission to NHSRC;

F. SYSTEM FRAMEWORK

Figure 2. System Framework of Universal Newborn Hearing Screening Program

II. ORGANIZATIONAL CHART

The organizational chart in Figure 3 shows the interaction between various government and non-government agencies and organizations involved in implementing the Newborn Hearing Screening Program. Details on the roles and responsibilities of implementers may be found on Section IX on *Roles and Responsibilities of Implementers.*

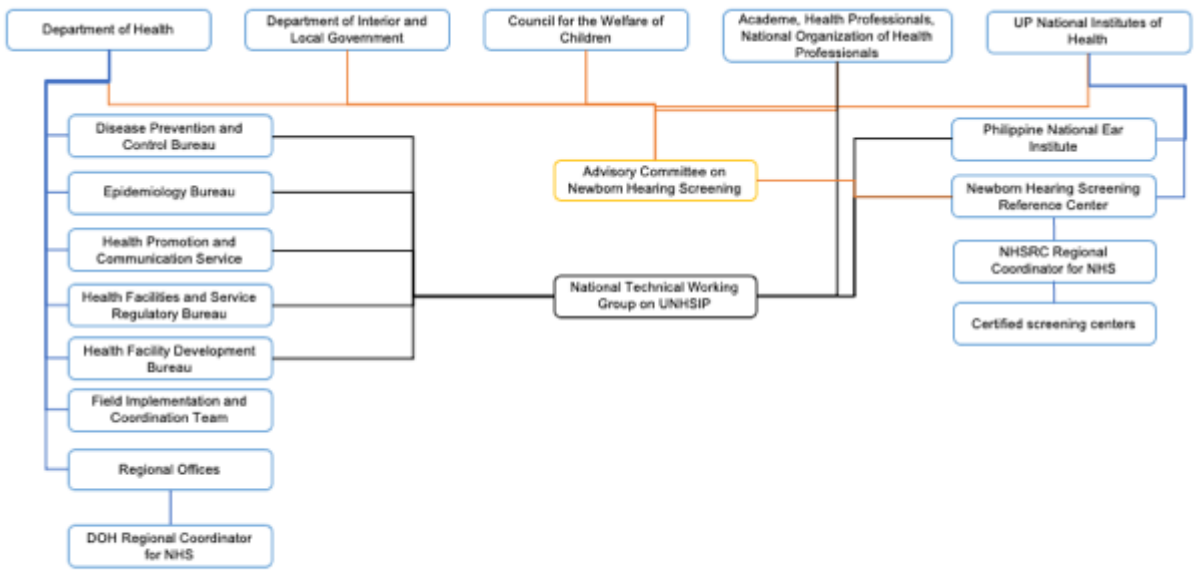

Figure 3. Organization Chart of Key Implementers of the UNHS Program

III. ESTABLISHING A NEWBORN HEARING SCREENING PROGRAM

The ***Department of Health*** in collaboration with the National Institutes of Health Philippines shall ***categorize, license and certify*** Newborn Hearing Screening Personnel and Centers where the newborn hearing screening tests can be done.

The UNHS program is best organized if you have a multi-disciplinary approach at the outset. A medical home concept for newborns is the most ideal set-up, which emphasizes on the role of the primary care physician with the full complement of a pediatrician, otorhinolaryngologists and speech therapists. More so, coordination of specialty medical care, provision for referrals for various services, assurance of timely follow-up and medical interface for medical interventions are also crucial to ensure program efficiency among NHSPs.

A. CATEGORIES OF SCREENING CENTERS

1. ***Category A (Newborn Hearing Screening Center)***
   This center has the capacity to do hearing screening and could also provide for the preventive aspect of hearing impairment.

2. ***Category B (Newborn Hearing Diagnostic Center)***
   This center has the capacity to do hearing screening and confirmatory testing such as an Auditory Brainstem Response (ABR)/ Auditory Steady State Response (ASSR). This facility shall act as coordinator for the surrounding Category A Newborn Hearing Screening Centers. Each province shall have at least one Category B center.

3. ***Category C (Newborn Hearing Diagnostic and Intervention Center)***
   This center has the capacity to do hearing screening, confirmatory testing and hearing aid fitting; at least one center shall be present per region. This is the lowest category for a Regional Database Center.

4. ***Category D (Newborn Hearing Diagnostic, Intervention, Surgical and Rehabilitation Center)***
   This center has the capacity to do hearing screening, confirmatory testing, hearing aid fitting, ear surgery such as cochlear implantation and speech rehabilitation.

B. REQUIREMENTS FOR FACILITY CERTIFICATION

Requirements for facility certification were amended after consultation with the NTWG[12]. Access to a NHSRC certified hearing center is a requirement for all health care facilities where babies are born. The birthing facility (birthing center or hospital) shall either be on the NHSRC list of certified Newborn Hearing Centers (Category A B C or D) or have a memorandum of agreement with one or several centers on the said list.

Onsite inspection of facility and equipment shall be done by the DOH in coordination with the NHSRC. ***The DOH has the sole authority to give the licensing for operation of Newborn Hearing Screening Facilities.*** All categories require facility certification.

An overview of the requirements for each category of screening center can be seen in Table 2. Facilities applying for certification shall have certified category-specific personnel prior to submission of application for facility certification. Each center require specific roles that need to be fulfilled detailed in Table 3. Details regarding application and requirements for facility certification, including required credentials for each personnel, are available at the official NHSRC website (https://nhsrc.ph/certification-application) (see also Appendices E to H).

NHSRC shall be responsible in verifying personnel credentials and certification, while DOH is responsible for facility licensing. Only the DOH can issue a facility code for free standing or independent newborn hearing facilities. Those NHSCs operating within DOH recognized health facilities which includes public-private partnership agreements / out-sourced services with memorandum of agreements shall be considered part of the entire facility. Public-private partnership agreements or out-sourced services shall have an area or archiving space within the health facility or hospital.

Facility certificate shall be issued once all the requirements are fulfilled. Certificate shall be renewed **every three years.** Centers may be subject to random inspection after certification.

Table 2. Overview of Requirements for Each Category of Screening Centers

Category	A **Newborn Hearing Screening Center**	B **Newborn Hearing Diagnostic Center**	C **Newborn Hearing Diagnostic, Intervention and Rehabilitation Center**	D **Newborn Hearing Diagnostic, Intervention, Surgical and Rehabilitation Center**
Facility	Shall have a registered business address. Testing may be done at bedside or any quiet area as long as acquisition of OAE or AABR is possible. There shall be a designated accessible archiving area for test results. There shall be sufficient space for 1 chair or bassinet and a table enough to carry hearing screening equipment, laptop/desktop and a printer. Ambient noise shall not be more than 50 dBA.	**OAE Room**: There shall be sufficient space for 1 chair or bassinet and a table enough to carry hearing screening equipment, laptop/desktop and a printer. Ambient noise shall not be more than 50 dBA. **ABR, ASSR Room**: There shall be sufficient space for 1 bed and a table enough to carry hearing diagnostic equipment, laptop/desktop, printer, and other materials for skin preparation.	**OAE Room**: There shall be sufficient space for 1 chair or bassinet and a table enough to carry hearing screening equipment, laptop/desktop and a printer. Ambient noise shall not be more than 50 dBA. **ABR, ASSR Room**: There shall be sufficient space for 1 bed and a table enough to carry hearing diagnostic equipment, laptop/desktop, printer, and other materials for skin preparation. **For Behavioral Test using Diagnostic Audiometer:** Soundproof booth (</=20dB), toys and reinforcers.	**OAE Room**: There shall be sufficient space for 1 chair or bassinet and a table enough to carry hearing screening equipment, laptop/desktop and a printer. Ambient noise shall not be more than 50 dBA. **ABR, ASSR Room**: There shall be sufficient space for 1 bed and a table enough to carry hearing diagnostic equipment, laptop/desktop, printer, and other materials for skin preparation. **For Behavioral Test using Diagnostic Audiometer:** Soundproof booth (</=20dB), toys and reinforcers. **Operating Room**
Equipment	OAE and/or AABR	1. OAE and/or AABR 2. ABR/ASSR 3. Immittance Machine (Tympanometer)	1. OAE and/or AABR 2. ABR/ASSR 3. Immittance Machine (Tympanometer) 4. Clinical Audiometer with play audiometry capabilities	1. OAE and/or AABR 2. ABR/ASSR 3. Immittance Machine (Tympanometer) 4. Clinical Audiometer with play audiometry capabilities 5. Hearing aid fitting equipment

			5. Hearing aid fitting equipment	
Connectivity	Access to a computer with internet (not necessarily within the center premises), spreadsheet program (MS Excel Open Office), and data capturing device capable of electronic transmission (such as scanner, computer camera, tablet with camera, secured dedicated smartphone, etc.)	Dedicated computer (within center premises) with internet, spreadsheet program (MS Excel Open Office), and data capturing device capable of electronic transmission (such as scanner, computer camera, tablet with camera, secured dedicated smartphone, etc.)	Dedicated computer (within center premises) with internet, spreadsheet program (MS Excel Open Office), and data capturing device capable of electronic transmission (such as scanner, computer camera, tablet with camera, secured dedicated smartphone, etc.)	Dedicated computer with internet, spreadsheet program (MS Excel Open Office), scanner, camera, or data capturing device capable of electronic transmission (such as cellphone, smartphone, tablet with camera)
Personnel Roles to be Fulfilled	• Manager • Screener	• Manager • Audiologist or ABR reader • ABR Technician • Screener	• Manager • Audiologist or ABR reader • ABR Technician • Screener • Developmental Pediatrician • Speech therapist and/or occupational therapist	• Manager • Audiologist or ABR reader • ABR Technician • Screener • Developmental Pediatrician • Speech therapist and/or occupational therapist • ENT coordinator (optional) • ENT implant surgeon • Cochlear implant audiologist

Note: Category D Center or Team shall have an office same as Category C with a manager, connectivity and archiving facilities. All members of the team shall be readily available.

Table 3. Duties and Responsibilities for Each Personnel Role

Personnel Roles	Category				Duties and Responsibilities
	A	B	C	D	
Screener	X	X	X	X	• Perform NHS following the prescribed stop criteria. • Explain to parents or guardians the newborn hearing screening results, steps needed for early diagnosis, intervention, and its importance • Input relevant data on the online registry • Document details of newborn hearing screening for PhilHealth Claims
Manager	X	X	X	X	• Supervision of screener performance to newborn hearing screening protocol • Refer patients who failed screening for further evaluation and management (especially for Category A managers) • Ensure relevant data is properly encoded to the online registry • Procurement of registry monitoring tools • Submit electronic reports to NHSRC and regional coordinators • Monitor and evaluate program key performance indicators appropriate to its category of center.
Audiologist		X	X	X	• To perform confirmatory diagnostic assessment among referred patients • To interpret ABR readings collected by the ABR technician • To fit patients with appropriate hearing amplification devices • To guide interdisciplinary intervention team in the clinical management of patients - For Cat B and C: includes appropriate referral for further management of patients diagnosed with hearing loss - For Cat C and D: includes coordination with interdisciplinary

					team members regarding appropriate management of patient diagnosed with hearing loss
ABR Reader		X	X	X	• To interpret ABR readings collected by the ABR technician • To guide interdisciplinary intervention team in the clinical management of patients - includes appropriate referral for further management of patients diagnosed with hearing loss
ABR Technician and/ or Audiometrician		X	X	X	• Perform and/or assist in [KO1] audiometric and/or electrophysiologic assessment procedures on behalf of the attending audiologist
Developmental Pediatrician			X	X	• Administer Parents' Evaluation of Developmental Status (PEDS)[KO2] screening for patients referred for assessment • Input relevant information in the online registry.
Speech Language Therapist and/ or Occupational Therapist			X	X	• Evaluate speech, audition, receptive, and expressive language of referred patients with accordance to chronological and hearing age. • Provide appropriate intervention for development of speech and language • Input relevant information in the online registry.
Otorhinolaryngology (ENT) Coordinator (optional)				X	• Coordinate relevant otorhinolaryngology services for referred patients.
Otorhinolaryngology (ENT) Implant Surgeon				X	• Perform surgical interventions to referred patients • Input relevant information in the online registry.
Cochlear implant Audiologist (telemetry and mapping)				X	• Perform intraoperative telemetry during cochlear implant programming • Program cochlear implant to optimized levels. • Input relevant information in the online registry.

C. REQUIREMENTS FOR PERSONNEL CERTIFICATION

Individuals who would like to perform the standard procedures shall be certified in a DOH-NIH training program as prescribed in Section 11, RA 9709 and IRR Rule 5 Section 21. In addition, *all* personnel involved in the NHSP shall undergo a certifying course. A standardized online certification course was developed by the NHSRC after thorough consultation with the NTWG in 2020 and 2021.[12,13] It is conducted monthly with registrations open from the 20th of the previous month to the 14th of the implementing month.

The Newborn Hearing Screening Personnel Certification Course is composed of three components: the Orientation and Updates to RA 9709, a written assessment, and a practical examination. The Newborn Hearing Screening Personnel Certification Course is the basic course for all managers and screeners of Newborn Hearing Screening Centers (Categories A to D). It is required that they pass the course before they become qualified to do hearing screening using otoacoustic emissions (OAE) and/or automated auditory brainstem response (AABR). This aims to ensure standardized training among newborn hearing screening personnel.

All other personnel involved in the diagnostic and intervention services of Newborn Hearing Screening Centers (Categories B to D) are required to complete the Orientation and Updates to RA 9709 only. These personnel may include audiologists, midwives, nurses, general physicians, otorhinolaryngologists, implantable hearing device surgeons, speech pathologists, and pediatricians involved in the management of an infant and/or a child with hearing impairment. The lecture series provides a comprehensive overview of the newborn hearing screening program focused on local stakeholders. Participants shall receive a Certificate of Attendance.

Applications for NHSC personnel training may be done through the website (https://nhsrc.ph/certification-application). Appendix I shows the requirements for application, as well as course objectives and coverage. Certifying training programs for all personnel, including managers (doctors and audiologists), shall be conducted by the NHSRC and shall be coordinated with the DOH. Certification for screeners, managers, advisors and coordinators shall be renewed every 5 years.

D. REQUIREMENTS FOR RENEWAL OF FACILITY AND PERSONNEL CERTIFICATION

1. Requirements for Facility Certification Renewal:
   Certification of facility is valid for three years only.

   - Certificate of Calibration (for all relevant equipment)
   - Scanned certificates of certified personnel
   - Complete monthly reports on number of patients screened, diagnosed, provided intervention

2. Requirements for Personnel Certification Renewal:
   Certification of personnel is valid for five (5) years and shall be renewed once they complete the Orientations and Updates course on RA 9709. To register for the Updates course, personnel shall submit:

- Online application via NHSRC website (https://nhsrc.ph/certification-application).
- Valid ID
- PRC ID (for physicians only)
- Certificate of Employment from affiliated facility
- Payment of Registration Fee

E. REQUIREMENTS FOR SCREENING DEVICE CERTIFICATION

Distributors of newborn hearing screening devices shall have their newborn hearing screening devices certified by NHSRC and FDA. Devices shall be in compliance with DOH Administrative Order No. 2018-0002 (Guidelines governing the issuance of an authorization for a medical device based on the ASEAN harmonized technical requirements). A regularly updated list of certified devices are available on the NHSRC website (https://nhsrc.ph/certified-devices/).

The specific minimum technical specifications[14–16] for currently acceptable technologies may be found below:

a. Distortion Product Otoacoustic Emissions (DPOAE)

Stimulus type: 2 primary pure tones; response measured at 2f1-f2 for each stimulus tone pair
Stimulus intensity (dB SPL) (L1/L2): 65/55 or 60/50
Frequency ratio (f2/f1): 1.22-1.24
F2 frequency region: 2-5 kHz; 1-6 kHz; 2-6 kHz; 1.5-12 kHz
Pass Protocol: response from 3 out of 4 frequencies

b. Transient Evoked Otoacoustic Emissions (TEOAE)

Stimulus type: click
Click rate: 50-80 per second
Stimulus Intensity: 70-84 dB SPL
Frequency region: 1-5 kHz; 1.5-4.5 kHz; 2-6 kHz; 0.7-4 kHz
Pass Protocol: Presence of a response as an SNR of at least 3-6 dB, or an overall minimum amplitude (wideband) response of 6 dB, with a reproducibility of 50% or greater

c. Automated Auditory Brainstem Response (AABR)

Stimulus: click
Click type: 0.1 msec
Stimulus polarity: rarefaction, condensation or alternating
Sweep rate (clicks/sec: within 32-62
Input frequency range: within 30-3,000 Hz
Stimulus intensity: 35 dB
Pass Criteria: Automated

Figure 4 shows the process that shall be followed for device certification. Application may be done online via the NHSRC website (https://nhsrc.ph/). In addition to the technical specifications written above, there are certain parameters that shall be fulfilled for device certification. Devices shall have a well-defined and detailed warranty specification for hardware and software (if applicable) servicing and support for the duration of the certification. It shall be calibrated in accordance with the manufacturer's recommendation and a log shall be kept documenting the dates of calibration, repair or replacement of parts. Devices shall have a local

distributor with a nationwide coverage. Devices shall be able to display and print out results containing the following information—the name, date, time and result of test (Pass/Refer) for each ear—either directly or indirectly (thermal paper, inkjet printer, laser printer or capture and print-out LCD or computer monitor display). The Device Certification Checklist is available in Appendix J and available online at the NHSRC website (https://nhsrc.ph/).

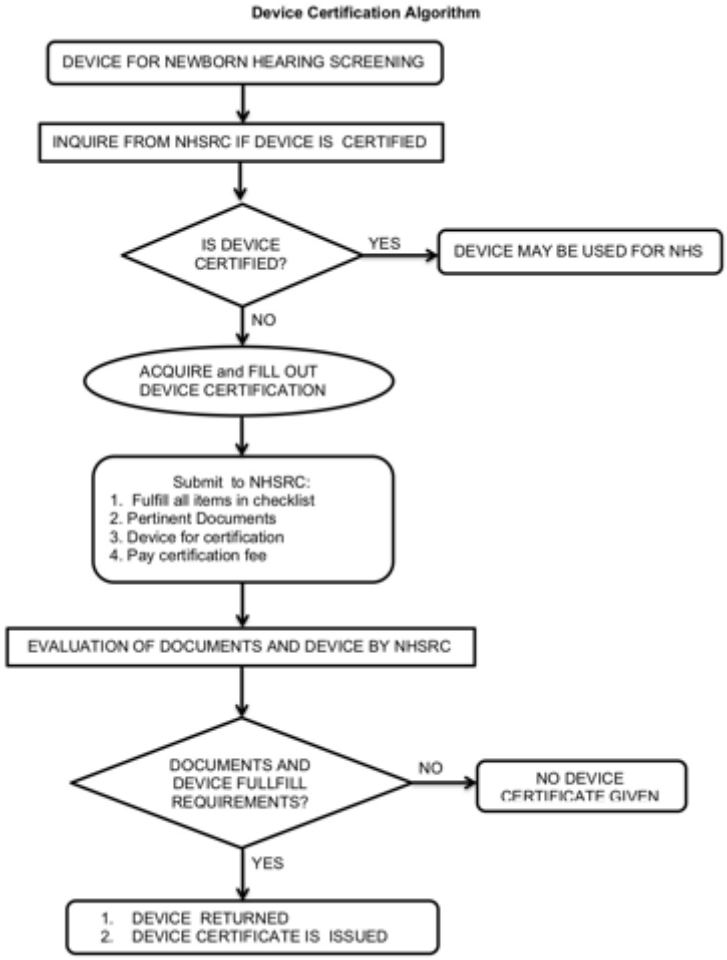

Figure 4. Algorithm for Device Certification

F. CONDUCTING A CERTIFICATION COURSE

The Newborn Hearing Screening Personnel Certification Course and the Orientation and Updates to RA 9709 is conducted to ensure compliance of NHSCs to operational standards set forth in the RA 9709 Manual of Operations (MOP). It provides all personnel involved in the UNHSP the theoretical and procedural knowledge needed for the implementation of a standardized and sustainable program. Specifically, it ensures that screeners are capable of performing the hearing screening procedure and appropriately refer patients identified to have potential hearing problems.

The NHSRC conducts a standardized monthly online version of both Newborn Hearing Screening Personnel Certification Course and Orientation and Updates to RA 9709. In coordination with the Department of Health (DOH), the certification courses aim to meet the demands of personnel requiring certification and recertification of personnel in the program. These courses can be sponsored by the DOH Regional Offices or by

private organizations. A **letter of intent** to sponsor a set of participants to the NHSRC Director at least one month prior to the intended month of sponsored course shall be sent via email: certifyingcourse.nhsrc@gmail.com.

A. Sponsored Online Courses

Institutions may sponsor the fees of at least 30 participants who shall undergo the online courses. The letter of intent shall contain a summary of participants who shall enroll in each course that include their full name and email address. This shall be used to verify participants registered in the registration form.

All sponsored participants shall register via the NHSRC website (https://nhsrc.ph/certification-application/). In cases wherein the sponsor institution is unable to provide proof of payment prior to participant registration, the sponsor shall provide participants with proof of sponsorship to upload in the deposit slip section of the online registration form in order to proceed. Certificates of sponsored participants shall be withheld until proof of payment of fees has been provided by the sponsor.

B. Sponsored Hybrid Courses

Hybrid courses utilize online lectures together with synchronous face-to-face or online discussions and examinations. The letter of intent shall indicate the target date/s of the course together with the terms of instruction:

Lectures	1. Asynchronous Face-to-Face: Standardized recorded lectures shall be shown to participants 2. Synchronous Online: NHSRC-affiliated lecturers shall conduct the lecture via online conferencing platform
Discussions	1. Synchronous Online: NHSRC-affiliated lecturers shall conduct discussions via online conferencing platform 2. Synchronous Face-to-Face: NHSRC-affiliated lecturers shall conduct discussions in person.
Written Examination	1. Synchronous Face-to-Face: Participants shall answer the written examination with pen and paper 2. Synchronous Online: Participants shall answer the written examination through an online from
Practical Examination	1. Synchronous Face-to-Face: Participants shall be evaluated face-to-face by an NHSRC-affiliated examiner. 2. Synchronous Online: Participants shall be evaluated online by an NHSRC-affiliated examiner.
Name of Course Coordinator	Full name and email address.

A coordination meeting shall be held by the sponsor's course coordinator, and the NHSRC coordinator for training and administrative assistant for training prior to issuance of an implementation package custom to the terms agreed upon.

C. Application as Examiner

In the implementation of RA 9709, competent newborn hearing screening personnel are needed to provide the service. This requires a panel of subject matter experts in the various regions of the Philippines to be knowledgeable of the foundations

of the program. The panel shall utilize a standard rubric in the evaluation of the performance of certification course participants.

The need for Training of Examiners Course was discussed in the 2021 NTWG meeting as it can serve as a capacity-building resource for potential examiners of the newborn hearing screening personnel certification course to ensure standard use of the rubric for consistent and fair evaluation of participant performance. The course is composed of two (2) components: a lecture series, and a written/practical assessment. It shall utilize synchronous learning through an online conferencing tool while its face-to-face implementation may use live remote, in-person, or pre-recorded learning sessions and conferences in adherence to safety precautions. Facilitation techniques include written and practical examinations with interactive discussion. Potential participants shall undergo a screening interview to ensure that there are no conflicts of interest.

Interested participants shall submit the following:

1. Letter of Intent
2. Recommendation letter from previous or current employer
3. Copy of Master of Clinical Audiology diploma
4. Copy of Newborn Hearing Screening Personnel Certificate (as audiologist, manager, or screener)
5. Curriculum Vitae

Examiners of the Certification Courses are expected to perform the following duties and responsibilities.

- Evaluate course participants according to standardized rubric.
- Communicate with certification course secretariat, coordinator, and course participants regarding practical examination concerns.
- Store and protect documents/records created and received relevant to the certification course.
- Attend regular check-in meetings regarding the newborn hearing screening certification course.
- Assist in quality improvement projects assigned by the certification course lead (to be compensated separately)

Examiners shall perform these duties on a part-time basis (4-10 hours per week) via remote and face-to-face set-ups. Compensation shall be honorarium based with the rate of P500.00/participant evaluated.

IV. PROCEDURES, STANDARDS, AND PROTOCOLS

A. PATIENT SELECTION AND EVALUATION

1. Who shall undergo newborn hearing screening?

   In accordance with international clinical practice guidelines and provision in Republic Act 9709, ***all newborns in the Philippines, with the consent of the parent/s or guardian*** shall be subjected to universal hearing screening. Consent forms are not necessary. However, a refusal form (Appendices K and L) is necessary if the parent or guardian does not want the infant subjected to hearing screening. All infants identified with hearing loss shall have access to resources necessary to reach their maximum potential.

2. How do we classify patients? What is the purpose of classifying patients?

All newborns, whether hospital born, out of hospital born, high risk, well babies or re-admitted, shall undergo newborn hearing screening, as described in the Section 6, RA 9709. The newborn hearing screening protocols shall be in accordance to the classification of the patient and availability of hearing screening devices or methods.

a. **Well Babies:** Babies who do not have any of the high-risk factors. The parents/caregivers of these babies have to be informed of the normal hearing milestones, to watch for the normal development of speech and language and to consult their physicians for any concerns.

b. **High Risk Babies:** Babies who have one or more of the high risk factors for hearing loss (Appendix M). These babies require closer monitoring even if they "pass" during the initial testing stage because of the possibility of late-onset or progressive hearing loss.

3. When is the right time to screen?

The right time to screen is ***on or after (≥) 24 hours after birth***, before the infant is discharged if hospital born. If the infant is out-of-hospital born then he or she shall be screened ***not more than 3 months of age***, regardless where they are delivered (includes infants who were hospital born but hearing screening was not done before discharge). For purposes of ***PhilHealth reimbursement, babies shall be screened within (≤) 2 months (60 days) of age***.

Hearing screening done in a hospital or birthing facility is performed as close to discharge as possible to give time for the passage of amniotic fluid or vernix from the external auditory canal. For those babies who received medical treatment, the test shall be conducted only after the baby is perceived well.

B. PREPARATIONS PRIOR TO SCREENING

1. What methods can be used in NHS?

Currently acceptable universal screening methods are otoacoustic emissions (OAE) and automated auditory brainstem response (AABR):

a. Otoacoustic Emissions (OAE)
A miniature earphone and microphone are placed in the ear. Sounds are played and a response is measured. If the ear reacts, a response can be measured in the ear canal by the microphone. When a baby has a hearing loss, no response can be measured on the OAE test. The two types of OAE screenings are:

- *Transient Evoked Otoacoustic Emissions (TEOAE)*
  Sounds emitted in response to an acoustic stimulus of very short duration; usually clicks but can be tone-bursts.
- *Distortion Product Otoacoustic Emissions (DPOAE)*
  Sounds emitted in response to two simultaneous tones of different frequencies.

b. Automated Auditory Brainstem Response (AABR)
Sounds are played to the baby's ears after electrodes are placed on the baby's head to detect responses. This screening measures how the hearing nerve responds to sounds and can identify babies who have a hearing loss.

We understand that some areas have difficulties in implementing the program, where devices are not yet available. If OAE and AABR are not available in the vicinity of the place of birth despite ***full cooperation and effort of the parents/guardians***, community screening tests may be initially employed with eventual referral to a facility. However, Philhealth shall not cover for these and the center cannot charge for these procedures because they are not considered replacements for the screening methods discussed above. Technologies and methods may change and shall be updated periodically, every three (3) years by the DOH and NHSRC.

2. Screening Environment

   The NHSC shall ensure that the screening environment is consistent with technical standards set by the NHSRC. There shall be minimal noise, ≤ 40 dB. Hearing screening may be done in a designated room or at bedside. Acoustic dividers or curtains shall be present. Radio, cell phones, TV and other audio devices shall be turned off. Tests shall be done after nursing or feeding and away from other babies. Screening rooms shall always be available during screening times

3. Decontamination or Disinfection Techniques

   The NHSP shall ensure that all hearing equipment and methods are maintained according to infection control guidelines as prescribed by the DOH and the Philippine Hospital Infection Control Society (PHICS) and other infection control societies.

C. PROTOCOLS FOR SCREENING

There are several protocols that can be employed for newborn hearing screening, based on patient classification (well-baby, high-risk baby) and the device available for screening. Table 4 shows the recommended protocols from American Speech-Language-Hearing Association.[17]

Table 4. Recommended Newborn Hearing Screening Protocols from ASHA

Well Baby	**High Risk Baby**
OAE only	AABR only
AABR only	Two Technology: AABR and OAE
Two Tier: OAE with immediate AABR rescreening if OAE is not passed	
Two technology: AABR and OAE	

In our country, we shall employ the 2-stage OAE or the 2-stage AABR protocols for screening.[12] For high risk babies, although OAE may be used and parents are counseled on close follow-up and monitoring of hearing milestones, the use of **AABR** is **strongly recommended**.

All protocols shall follow the device-specific stop criteria for every session. Stop criteria defines the conditions under which no further screening trials are needed for a session assuming that screening conditions were adequate (quiet baby, quiet room, acceptable probe fit or electrode impedance and headphone placement)

1. STOP CRITERIA AND PROTOCOL FOR INITIAL STAGE/IN-PATIENT OAE (Figure 5)

- This criteria is primarily applicable for initial stage screening of well babies prior to discharge. OAE screening for high risk babies shall only be performed in the absence of AABR, or in conjunction with AABR.
- Three (3) screening trials per session per ear can be conducted.
- If result of the first trial of the first session is “PASS” then the patient is declared “PASS” for that ear. There is no need for subsequent trials or sessions.
- If the result of the first trial of the first session is “FAIL/REFER”, then 2 more trials can be done for that session. If the results of the three tests are “FAIL/REFER” then a second session is conducted at least 2 hours later.
- If after the second session of 3 trials the patient’s result is still “FAIL/REFER”, the final result for this stage is read as “FAIL/REFER”.
- Proceed to second stage screening if FAIL/REFER.
- In cases where a birthing facility does not have the capability to perform in-house hearing screening, screening can be performed on an outpatient basis following the abovementioned protocol for the initial stage.

2. STOP CRITERIA AND PROTOCOL FOR SECOND STAGE/ OUTPATIENT OAE (Figure 6)

- Outpatient screening generally refers to second stage screening, and shall be done before 4 weeks of age. A physician shall evaluate the ears priors to rescreening.
- Rescreening of infants shall include re-evaluation of both ears even if only one (1) ear failed at initial screen.
- Three (3) to four (4) screening trials per ear can be conducted for this session.
- If result of the first trial is “PASS” then the patient is declared “PASS” for that ear. There is no need for subsequent trials.
- If the result of the first trial is “FAIL/REFER”, then 2 more trials can be done for that session. If on the 3rd trial, the result is still “FAIL/REFER”, the final result for this stage is read as “FAIL/REFER”.
- If on the 3rd trial, the result is “PASS”, proceed to a 4th trial. On the 4th trial, if a patient is “PASS”, the final result for this stage is read as “PASS”, but if the result is “FAIL/REFER” again, the final result for this stage is read as “FAIL/REFER”.
- Proceed to diagnostic evaluation if FAIL/REFER

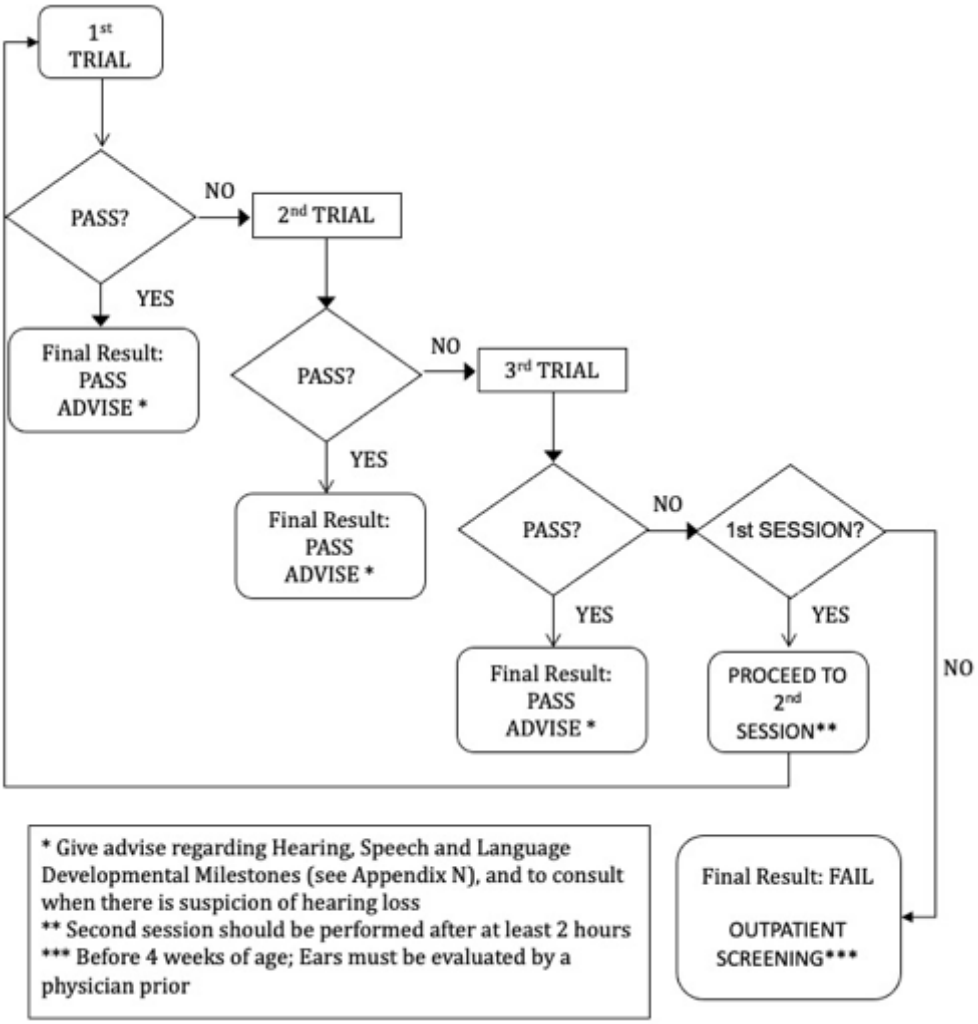

Figure 5. Stop Criteria for Initial Stage/ Inpatient OAE

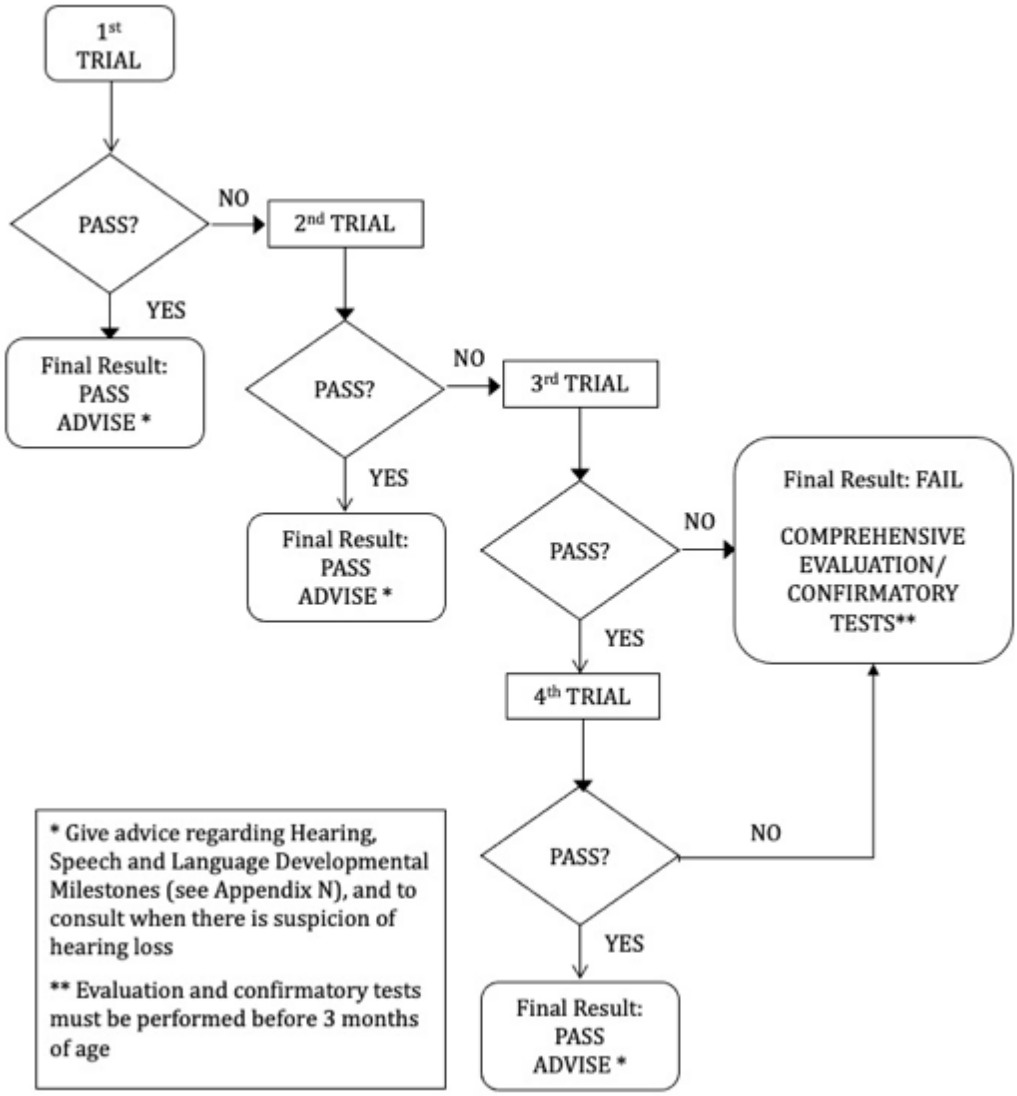

Figure 6. Stop Criteria for Second Stage/ Outpatient OAE

3. STOP CRITERIA AND PROTOCOL FOR AABR (Figure 7)
    - This criteria is applicable for both well babies and high risk infants, whether inpatient (first stage) or outpatient (second stage) screening.
    - Two (2) screening trials per ear can be conducted, to be performed several hours apart.
    - If result of the first trial is “PASS” then the patient is declared “PASS” for that ear. There is no need for subsequent trials or sessions.
    - If the result of the first trial is “FAIL/REFER”, then 1 more trial can be done several hours later for that stage. If the results is still “FAIL/REFER”, the final result is read as “FAIL/REFER”.
    - Re-screening shall be done before 4 weeks of age. A physician shall evaluate the ears priors to rescreening.
    - Rescreening of infants shall include re-evaluation of both ears even if only one (1) ear failed at initial screen.

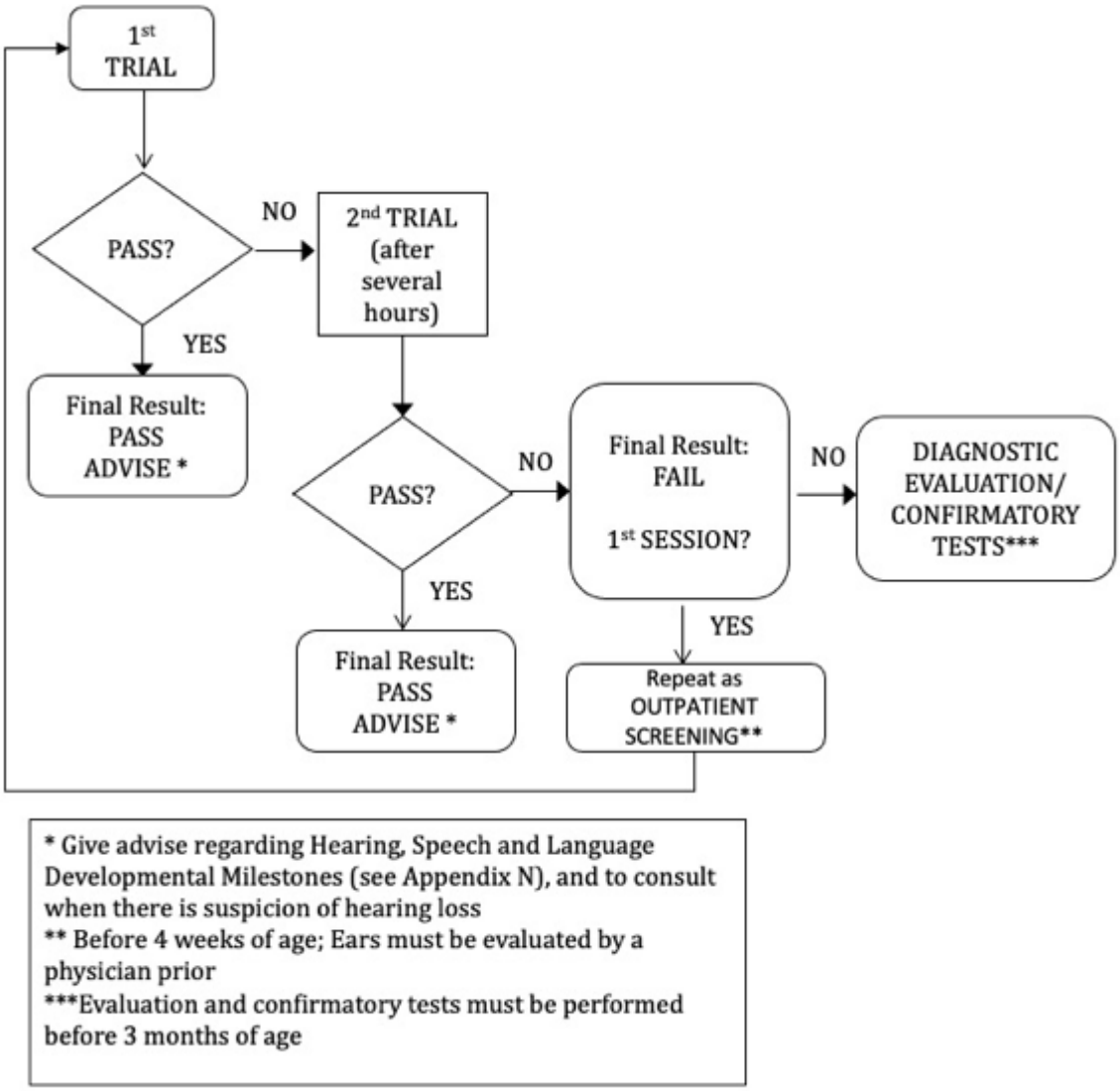

Figure 7. Stop Criteria and Protocol for AABR (Initial and Second Stage Screening)

These algorithms may be changed every ***three (3) years*** depending on best available evidence.

4. CONVEYING TEST RESULTS AND INFORMATION TO FAMILY

Screening results shall be conveyed immediately to the parent/s or guardian so they understand the outcome and the importance of follow-up when indicated.

What does a "PASS" result mean?

A "PASS" result on using Otoacoustic Emissions (OAE) testing means that the outer hair cells of the ear of the infant on that side is intact. If Automated Auditory Brainstem Response (AABR) is used for screening, then the integrity of the auditory pathway up to the brainstem on that side was tested. Screening tests do not measure degree of hearing loss or measure hearing thresholds. If the result is "PASS", speech and language developmental milestones shall still be observed by the parents. Kindly see attached advisory brochures on Speech and Language Developmental Milestones on Appendix N.

What does a "REFER" result mean?

If the STOP criteria was correctly applied and a "REFER" result was given to the side of the ear, then this means that the infant shall be referred or seen by a Physician or Clinical Audiologist for further evaluation and confirmatory testing.

Conveying test results shall be part of the Personnel Certification Course. To facilitate this process for families, hearing screening personnel shall ensure the following:

- Communications with immediate family members (parent/s or guardians) are ***confidential*** and presented in a caring and sensitive manner, face-to-face.
- Medical professionals, specifically the Head of the Hearing Screening Center, primary caregiver, physician or pediatrician of the child shall also be aware of the results of the screening test and are documented in the hospital medical record.
- Before discharge, parents shall be offered an appointment for follow-up testing if the newborn has a "REFER" result.
- The Head of the Hearing Screening Center is primarily accountable for the accuracy of the results and the reporting of the same to the parents or guardians, primary care physician or pediatrician, hospital/health facility and NHSRC.
- The NHS Center and Personnel (NHSP) have the responsibility of providing educational materials based on DOH and NHSRC recommendations. Educational materials shall provide accurate information at an appropriate reading level and in a language or dialect they are able to comprehend. Appendices P and Q shows an example of such brochures. Materials shall include a list of rehabilitation services, diagnostic and therapeutic facilities, hospitals, schools, therapy centers and support groups in the locality. NHS Centers and Personnel are encouraged to submit materials to the DOH and NHSRC for approval and cataloging prior to posting and/or distribution.
- For "REFER" results, the NHSP are required to give a written referral to a specific service provider for further management.
- The NHSP are required to follow-up and document all high risk patients.
- It is expected that most of the results of screening would be "PASS" for both ears. However, it shall be emphasized that hearing loss may have a delayed onset and that milestones related to hearing shall be observed in the infant (Appendix N).

5. RECORDING AND REPORTING OF SCREENING RESULTS

Proper recording, reporting and archiving of newborn hearing screening data shall be instituted in all participating health facilities. Methods of reporting and data encoding shall be part of the Category A Newborn Hearing Screening Certifying Course and Orientation to RA 9709 Courses. This shall primarily involve the use of the Electronic National Newborn Hearing Screening Registry (ENNHSR) software, which can generate the Integrated Newborn Hearing Screening Initial Result and Registry Data Information form (see Appendix O). This form contains patient data and initial hearing screening result encoded by the hearing centers. A space is provided to put a NHSRC Registry Sticker, which contains a serial number contiguous with that used in the Newborn Hearing Screening Registry Cards.

The official result of the screening test (OAE or AABR) shall have a digital print out of the result indicating the date and time of acquisition down to the seconds mark.

Two copies of the Integrated Newborn Hearing Screening Initial Result and Registry Data Information form shall be printed by the hearing centers. The NHSRC Registry Stickers shall be placed on each print out. One copy shall be given to the parent while one copy shall be retained by the center for processing Philhealth claims and archiving. Only the Integrated Newborn Hearing Screening Initial Result and Registry Data Information with NHSRC Registry Sticker shall be accepted by the NHSRC and Philhealth. The facility copy shall not be removed within the premises of the health facility as they are technically official records of the patients and may be inspected by the DOH. Records shall be kept by the facility for 10 years.

The health facility code is assigned by the DOH and is based on the health facility where the infant is born.

D. MANAGEMENT FOR FAIL/REFER RESULTS ON SCREENING

Auditory brainstem response with tone burst or auditory brainstem response with auditory steady state response (ASSR), and/or behavioral audiometric tests (if available) are recommended for infants who do not pass re-screening within three (3) months of age. Both ears shall be evaluated and subjected for confirmatory testing. Figure 8 shows the algorithm for comprehensive evaluation after screening.

All infants with identified hearing loss shall be referred by the primary health care professional to a board-certified ENT specialist within six (6) months of age after detection of hearing impairment for further management by a multidisciplinary team. The same primary health care professional shall refer to other specialists and other professionals for continuing care.

Intervention in the form of hearing aid fitting, hearing and behavioral rehabilitation shall be recommended within 6 to 12 months after consult with an ENT specialist. Figure 9 shows the guide for hearing loss management.

The health care professional who is providing primary care services to the infant is responsible for ensuring access to a team of professionals in multiple disciplines for habilitation and management.

Proper recording, reporting and archiving of data related to confirmatory testing shall be instituted in all participating health facilities (Category B to D). Methods of reporting and data encoding shall be part of the Category A Newborn Hearing Screening Certifying Course and Orientation to RA 9709 Courses.

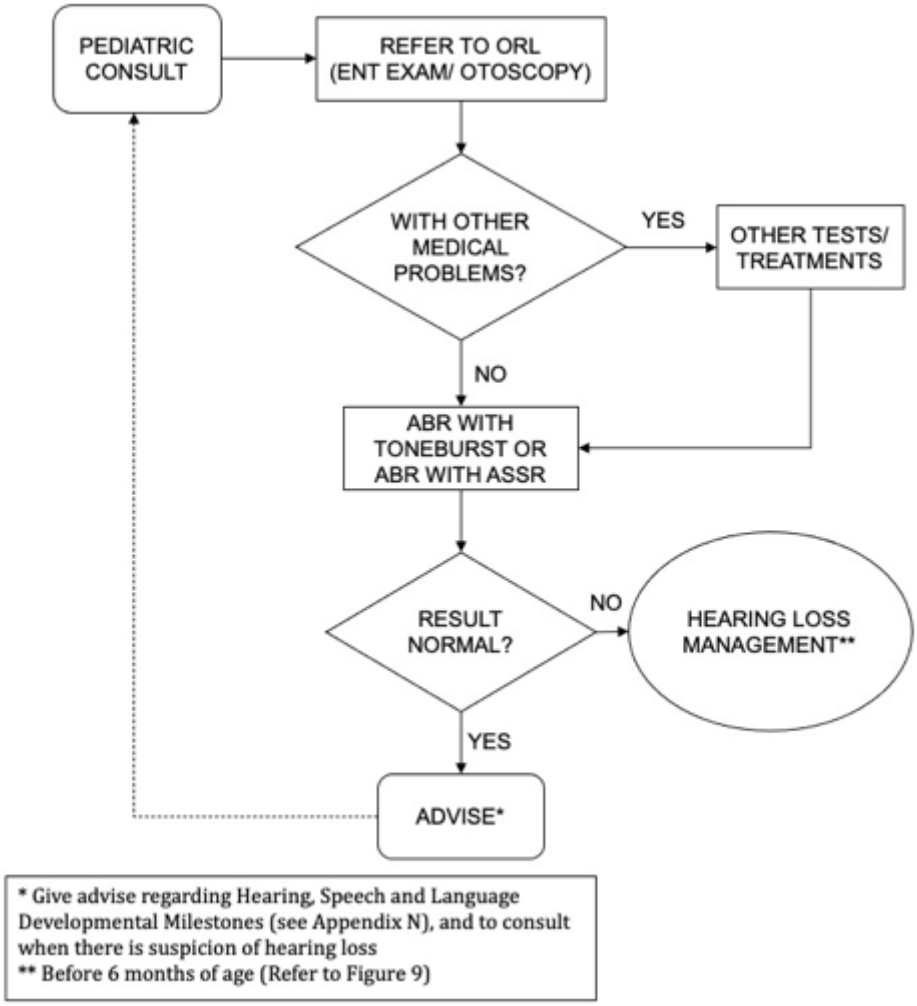

Figure 8. Algorithm for Comprehensive Evaluation after Screening

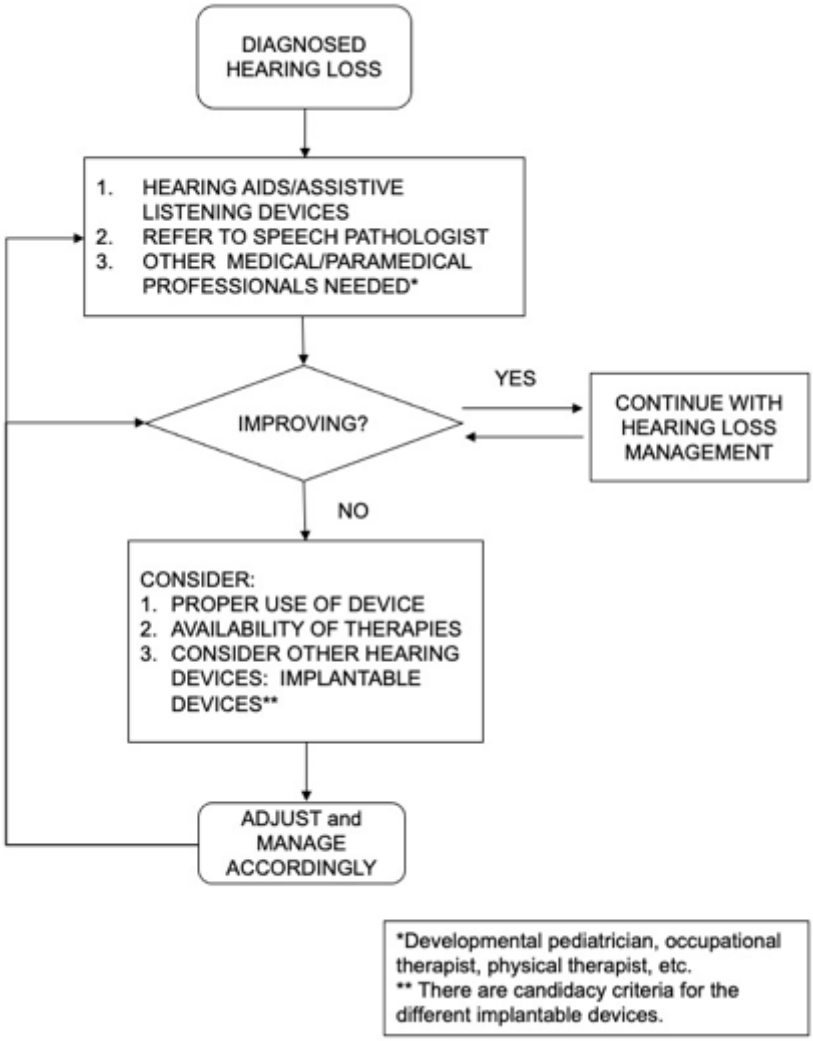

Figure 9. Algorithm for Management of Confirmed Hearing Loss

E. MANAGEMENT OF CONFIRMED HEARING LOSS

Management of hearing loss shall be a multidisciplinary endeavor involving the ENT doctor, the pediatrician, audiologist, speech pathologist and other medical or paramedical professionals that may be needed as shows in Figure 9. Management may include the use of hearing aids or other assistive listening devices, or in some severe cases, an implantable hearing device shall be considered. Technologies used for management of hearing loss shall meet the following minimum requirements, and shall have undergone and passed the rigorous evaluation by NHSRC and FDA for effectiveness, safety and reliability. Recommendations on acceptable hearing rehabilitation technologies may change depending on market availability.

1. Specifications for Hearing Aids in Children
   - Shall be able to provide amplification for moderate to profound hearing loss.
   - Behind the ear type
   - Shall have at least 8 channels
   - Shall be compatible with FM system & other assistive device
   - Shall have a lock in the battery compartment.

2. Specifications for Cochlear Implants
   a. Electrodes:
      - Shall have at least 22 electrodes for monophasic or 11 for biphasic stimulation paradigm, moulded with silicone elastomer carrier.
      - Diameter of electrodes: Not exceeding 1.3mm at the basal end and not exceeding 0.5 mm at the apical end.

   b. Receiver stimulator
      - Hermetically sealed titanium case
      - Case dimensions (maximum): 25mm x 26mmx 6.9 mm
      - Receiver Coil dimension (maximum): 32 mm x 3.8mm
      - Maximum Weight: 9 g (including electrode array).

   c. Operating Characteristics
      - Power and data received by 5 or 12 MHz inductive link from the sound processor headset coil.
      - Delivers biphasic current pulses.
      - Delivers monopolar, bipolar or common ground stimulation.
      - Delivers stimulus amplitudes ranging from 0 to 12 μA
      - Delivers stimulus duration from 2.1 to 425 μs per phase.

Proper recording, reporting and archiving of data related to interventions and habilitation shall be instituted in all participating health facilities (Category C to D). Methods of reporting and data encoding shall be part of the Category A Newborn Hearing Screening Certifying Course and Orientation to RA 9709 Courses.

F. SPECIAL CONSIDERATIONS FOR OUTBREAKS AND FORTUITOUS EVENTS

Advisories and memorandum shall be issued via the NHSRC website (https://nhsrc.ph/). Screeners and managers shall also be informed via email.

V. NATIONAL REGISTRY

A. ELECTRONIC NATIONAL NEWBORN HEARING SCREENING REGISTRY

In 2020, the NHRSC embarked on a project with the National Telehealth Center - National Institutes of Health to develop an Electronic National Newborn Hearing Screening Registry (ENNHSR), that is compliant with existing health information technology standards such as Health Level 7 (HL7) as well as laws such as the Data Privacy Act of 2012. A web-based electronic database with a mobile-based application (both online and offline version) shall be used for the newborn hearing screening national registry, which shall be maintained by the NHSRC. This national registry was developed for efficient data management that shall allow monitoring of screening, intervention and outcomes of newborns with hearing impairment, as well as constant evaluation of the Newborn Hearing Screening Program. This can be accessed via https://ennhsr.nhsrc.ph.

The information from the registry can be used by every local hearing program or accredited newborn hearing center for management and audit. It is envisioned that an online system shall be developed which allows providers and public health officials to

monitor their performance, compare their services with national standards. Specific data can be exported enabling the creation of a focused report (see Table 5).

Table 5. Category-Specific Metrics and Data Generated from the Registry

CATEGORY	RELEVANT METRICS AND DATA
All Categories	a. Total number of babies born in the facility including walk-in clients b. Total number of babies screened in the facility including walk-in clients c. Total number of babies initially screened with refer results in both ears (Bilateral Refer) d. Total number of babies initially screened with refer results in one ear (Unilateral Refer) e. Total number of babies initially screened with pass results in both ears (Bilateral Pass) f. Total number of babies re-screened with refer results in both ears (Bilateral Refer) g. Total number of babies re-screened with refer results in one ear (Unilateral Refer) h. Total number of babies re-screened with pass results in both ears (Bilateral Pass) i. Total number of babies with “Not Performed because of deformity on one ear (e.g. Unilateral Microtia) j. Total number of babies with “Not Performed because of deformity on both ears (e.g. Bilateral Microtia) k. Total number of babies with ‘Not Performed’ because of refusal.
Additional Data For Category B	List of patients who underwent confirmatory testing, date the test was done and results
Additional Data For Category C	a. List of patients who underwent confirmatory testing, date the test was done and results b. List of patients who received hearing intervention, date and type of intervention
Additional Data For Category D	a. List of patients who underwent confirmatory testing, date the test was done and results b. List of patients who received hearing intervention, date and type of intervention c. List of patients who received speech rehabilitation, date of speech therapy

Training on the use of the registry shall be a part of the certifying course. The user manual shall be discussed and distributed during the course.

B. REGISTRY MONITORING TOOL (RMT)

Registry Monitoring Tool or RMT refers to technology that shall allow identification of each patient with associated results of the newborn hearing screening. Previously, this came in the form of a registry card. With the development of ENNHSR, the RMT has been shifted to the NHSRC Registry Sticker Seals, which has security features absent in the previous RMT. The NHSRC Registry Sticker Seal contains a serial number contiguous with that used in the Registry Cards.

The RMTs can only be procured from the NHSRC-NIH. A minimal fee shall be charged that is necessary to maintain database information for the patient for 10 years. No other entity may redistribute or resell the RMTs.

Only designated managers of Newborn Hearing Centers may procure NHSRC Registry Sticker Seals as with the Registry Cards. The number of unique seals (pairs) each Hearing Center can procure shall not exceed 120% of the number of patients catered to during the previous year. The ENNHSR shall display the real time inventory of the Hearing Centers and prompt the centers to order when at least 50% of the NHSRC Stickers has already been used. Managers shall then be directed to an Order panel where they can input their request.

An order invoice shall be sent by the NHSRC through email to certified managers of hearing centers with good standing indicating payment instructions, and claiming options. The following payment and claiming options are available:

- Payment first
  Payment is done via direct bank deposit. All transmission expenses shall be shallered by the NHSCs. A scan of the deposit slip shall be emailed to NHSRC. Centers may choose to pick-up the RMTs from the NHSRC office or have it delivered via courier. Ten (10) working days from the day the proof of payment was sent shall be expected before RMTs can be picked up or for NHSRC staff to send out the RMTs for shipping.

- Payment upon pick-up
  Payment is done through the University of the Philippines Manila cashier upon presentation of the order invoice issued by the NHSRC. Pick-up may be done on the same day at the NHSRC office at the NIH Building of UP Manila Pedro Gil St., Ermita, Manila upon presentation of the official receipt from the UP Manila cashier. RMTs may be picked up on the 10th working day from the time the NHSC informs NHSRC of this chosen option.

- Delivery first, payment later
  This option is available for government institutions only. RMTs shall be sent out for shipping on the 10th working day from the time the NHSC informs NHSRC of this chosen option. Payments may be done through the University of the Philippines Manila cashier upon presentation of the order invoice issued by the NHSRC, or through direct bank deposit.

Delivery or courier fees shall be shallered by the center depending on quantity and delivery address which shall be indicated in the order invoice. The RMTs can only be delivered to the registered mailing address of the hearing center. For pick-ups, the RMTs may be claimed by the manager, or an authorized representative. The authorized representative shall present a letter of authorization, valid ID (original and photocopy), and a copy of the valid ID of the manager with signature.

Missions and charities are *not* exempt from procuring and using the RMTs.

VI. PROGRAM QUALITY INDICATORS

The program has adapted the recommended benchmarks set by the Joint Committee on Infant Hearing (JCIH) (Table 6). Indicator data shall be aggregated at the regional and national level for trending, provider profiling and further benchmarking.

Table 6. Newborn Hearing Screening Program Quality Indicators

Quality Indicator Description	**Quality Indicator Definition**	**Success Indication**
Percentage of all newborn infants who complete initial screening by 1 month of age	Numerator: Newborns who underwent initial newborn hearing screening prior to 1 month of age Denominator: All live births	More than 95%[14]
Percentage of all newborn infants who fail initial screening	Numerator: Newborns who received a refer result in the initial newborn hearing screening Denominator: All live births	Less than 4%[14]
Percentage of return-for-follow up within 1 month from initial screening	Numerator: Newborns who underwent second stage screening within 1 month from initial screening Denominator: Newborn who failed initial screening In cases where second stage screening was performed in a different facility from the initial screen, the newborn shall be counted under the census of the facility performing the second stage screening.	Minimum 70%[18]
Percentage of newborns who failed screening but completed confirmatory testing by 3 months of age	Numerator: Newborns who underwent confirmatory testing by 3 months of age Denominator: Newborns who received a refer result on second stage screening In cases where confirmatory testing was performed in a different facility from the screening, the newborn shall be counted under the census of the facility performing the confirmatory testing.	90%[14]

For families who elect amplification, the percentage of infants with confirmed bilateral hearing loss who receive amplification device by 6 months of age	Numerator: Infants who receive bilateral amplification by 6 months of age Denominator: Infants with confirmed hearing loss via ABR/ASSR including those referred from outside the facility, whose families elected amplification	95%
Percentage of infants with confirmed hearing loss who receive the first developmental assessment with standardized assessment protocols for the language, speech, and nonverbal cognitive development by no later than 12 months of age	Numerator: Infants who received the first developmental assessment with standardized assessment protocols for the language, speech and nonverbal cognitive development Denominator: Infants with confirmed hearing loss via ABR/ASSR	90%[14]

Other quality indicators are the following:

1. Percentage of newborn infants who failed the 2-stage screen prior to comprehensive audiologic evaluation[14]
2. Percentage of newborn infants who failed initial screening but passed the second screening[14]
3. Average time from NHSC referral to audiological assessment.
4. Percentage of DOH-licensed and PhilHealth accredited facilities that are providing newborn hearing screening services with or without utilization of PHIC newborn package
5. Percentage of families of newborns refusing screening (identify reasons)
6. Percentage of newborns with unilateral hearing impairment
7. Percentage of newborns with bilateral hearing impairment
8. Percentage of hearing impaired newborns referred for habilitation
9. Percentage of hearing impaired newborns referred for speech therapy

VII. NHSC MONITORING AND EVALUATION OF PERFORMANCE

Monitoring of newborn hearing screening shall be incorporated in the routine monitoring activities of the DOH and NHSRC. All certified newborn hearing screening providers shall be annually reviewed in terms of compliance with the following standards:

a) Technical Standards

Technical requirements are the prescribed physical, technical/mechanical, and personnel requirements for each screening center as indicated in Section III-B. This refers to adequate maintenance of the facility, ensuring personnel are qualified, and equipment are certified and regularly calibrated

b) Customer Service Performance Standards

This ensures that NHS providers demonstrate professionalism in dealing with patients and/or their partner institutions. The components of this section shall include (see Appendix P):

- Customer feedback

  The customer feedback form in Appendix P contains 12 items that assess customer experience in relation to the administrative process (6 items) and personnel (6 items) of the services within the newborn hearing screening center. The form may be filled out by hand or adapted into an electronic format.

- Critical incidents and customer complaints

  The open-ended feedback form in Appendix P shall be used for any critical incidents or complaints from customers. A complaint summary and customer demands shall be provided by the customer. Suspected cause and Action/Response Plan shall be determined by the newborn hearing screening center wherein the regional coordinator shall verify the complaint's resolution. The form may be filled out by hand or adapted into an electronic format.

- External provider customer feedback (applicable for centers who provide NHS services outside of their centers)

  The external provider customer feedback form in Appendix P is similar to the customer feedback form. contains 7 items that assess partner experience in relation to the administrative process (4 items) and personnel (3 items) of the services provided by their external provider. The form may be filled out by hand or adapted into an electronic format.

The center is expected to maintain a customer feedback log wherein it shall be submitted to the monitoring body during the performance appraisal period.

c) NHS Performance Standards

Performance Indicators are the prescribed measure of performance by which each screening center is measured, as recommended by the NHSRC. This refers to clinical protocols, with metrics aligned to the overall program quality indicators.

Each component corresponds to a section of the monitoring and evaluation workbook. Components are evaluated based on compliance (Compliant and Failed) or a passing score for performance indicators (70%). It shall be noted that FAILED mark in one component is an automatic fail for the entire evaluation.

These monitoring activities shall produce a performance appraisal report once assessment of the above standards is completed. The document outlines each provider's status and action items. The report shall be shared to the provider and regional coordinators with the aim to improve NHS service delivery. Progress on action items indicated in the performance appraisal report shall be followed up on the next evaluation period. Failure to improve on noted deficiencies during the next evaluation period. may be cause for withholding re-certification.

VIII. ROLES AND RESPONSIBILITIES OF IMPLEMENTERS

A. DISEASE PREVENTION AND CONTROL BUREAU, DEPARTMENT OF HEALTH

The DOH shall be the lead agency in implementing the provisions of this Act. For this purpose, the DOH shall perform the following functions:

1. Develop a comprehensive program for prevention and management of hearing loss of children.
2. Appropriate, leverage, and mobilize resources of the various offices within the DOH, NHSRC-NIH, PhilHealth, and other health related facilities, and other external resources to fully implement the program.
3. Enjoin local government, stakeholders, concerned health personnel and workers at all levels to fully implement the program.
4. Expand the Advisory Committee on Newborn Screening to include representatives for newborn hearing screening.
5. Coordinate with other national government agencies, local government units (LGU), health professional organizations and societies, funding agencies, development partners, socio-civic organizations private sectors and others in the implementation of the program.
6. Include newborn hearing screening in its health communication plan, advocacy and social mobilization campaigns.
7. Coordinate with the NHSRC-NIH for the following:
    a. Certification of NHSC personnel
    b. Determining the prescribed screening methods, hearing loss confirmatory tests, interventions and alternative methods if any
    c. Preparation of defined testing protocols and quality assurance programs.
    d. Maintenance and improvement of the NHS registry.
    e. Development of alternative hearing screening methods, instruments, and procedures.
    f. Definition of candidacy and the promulgation of selection criteria regarding appropriate treatment and/or rehabilitative interventions for the deaf or hearing-impaired child.
    g. Production and distribution of newborn hearing screening registry monitoring tool.
    h. Preparation and distribution of advocacy campaign activities and dissemination of public information materials.
    i. Preparation of annual budget from the general appropriations act (GAA) regarding setting-up of infrastructure, procurement of equipment and manpower concerning Newborn Hearing Screening and Intervention in DOH retained health facilities nationwide.
    j. Determination of fees to be levied for registry monitoring tool, certification of personnel and NHS centers, and other technical advisory services on newborn hearing such as but not limited to newborn hearing screening or diagnostic devices and alternative methods evaluation.

8. Formulate policies for the institutionalization of the program at all levels of implementation. Integrate the NHSP into the current health care delivery system. It shall become part and parcel of a routine procedure for newborn in hospitals, public and private health institutions.

9. Ensure that a network for prompt recall of those with “Refer” results is established in collaboration with the LGUs, government agencies, and other non-government organizations.

10. Establish a network of hospitals, health facilities and diagnostic hearing centers for the referral and management of those newborns who had “Refer” results for confirmatory testing and intervention if needed.

11. Coordinate with the following groups for their possible role in the implementation of the UNHSIP:
    a. Patients’ support groups and service provider delivery groups involved in attending to the needs and concern of individuals who are deaf and hard-of-hearing and their families.
    b. Qualified professional personnel who are proficient in deaf or hard-of-hearing children’s language and who possess the specialized knowledge, skills and attributes needed to serve deaf and hard-of-hearing infants, toddlers, children and their families.
    c. Other health and education professionals and organizations. Monitor the extent to which hearing screening and evaluation are conducted in health institutions, and assist in the development of UNHSIPs for hospitals, health institutions and diagnostic hearing centers. The DOH shall require these healthcare institutions to periodically submit data on newborns screened in their facility and include compliance to this function as a criterion for renewal of certification.

B. NEWBORN HEARING SCREENING REFERENCE CENTER, NATIONAL INSTITUTES OF HEALTH

A central facility located at the National Institutes of Health, University of the Philippines Manila that defines testing and follow-up protocols, maintains an external laboratory proficiency testing program, oversees the national testing database and case registries, assists government and non-government agencies in the training activities in all aspects of the program, and oversees content of instructional and educational materials. The director is a board-certified Otolaryngologist of the Philippine Board of Otolaryngology Head and Neck Surgery or a clinical audiologist, resident of the Philippines who has completed a Masters in Clinical Audiology course.

The Newborn Hearing Screening Reference Center –National Institutes of Health (NSHRC-NIH) as technical arm of the Department of Health shall assist on the following:

1. Defines, recommends, and sets standards newborn hearing screening testing and follow-up protocols which includes hearing screening methods, devices used, location, manner and timing of newborn hearing testing.
2. Conducts personnel certifying courses together with the DOH.
3. Conducts testing and certification of newborn hearing screening and habilitation devices and methods with the DOH.
4. Establish and distribute tracking system (e.g. registry cards, sticker seals, etc.) and levies fees as approved by the DOH.
5. Distributes advisory and advocacy materials in coordination with DOH.
6. Maintains and oversees the national hearing screening database and case registries.

7. Assists government and non-government agencies in all aspects of the program including implementation, training, awareness campaigns including overseeing content of educational and other instructional materials.

C. NHSRC REGIONAL COORDINATOR

There shall be two (2) coordinators for Newborn Hearing per region—NHSRC and DOH-appointed regional coordinators. The NHSRC Appointed Newborn Hearing Coordinators shall be nominated by the PSO-HNS or ACAP. The credentials listed below shall be submitted to the NHSRC-NIH and most qualified nominees shall be chosen by the NHSRC-NIH. Appointments shall be final once approved by the National Technical Working Group on Newborn Hearing and shall be renewed every three (3) years unless otherwise revoked by the NHSRC.

Roles and Responsibilities:

- Serve as local technical advisor on the implementation of circulars, directives and projects regarding newborn hearing which includes certification of personnel, certification of facilities, hearing screening device certification, distribution of registry monitoring tools, timely submission of reports
- Coordinate and work with the following: NHSRC at NIH staff, DOH Assigned Regional Coordinator, Project Manager from the Family Health Office of the DOH
- Carry out, join or coordinate all certification inspections and credentialing done by the NHSRC
- Attend monthly NHSRC meetings
- Present and submit an annual report during the annual consultative meeting on Newborn Hearing hosted by the FHO DOH regarding Regional data, experiences, complaints focusing on non-government-initiated activities or advocacies during the previous year
- Assist in regional quality improvement activities such as audits to guide renewal of facility certification

Skills:

- Shall have good communication, project management, research and leadership skills
- Shall have good computer skills and knowledgeable in the following programs - Microsoft Excel, Microsoft Word, Microsoft Powerpoint, Zoom

Experience:

- At least 1 year in hearing health-related activities or advocacies.

Credentials:

- Fellow of good standing of Philippine Society of Otolaryngology Head and Neck Surgery AND member of Philippine Academy of Neurotology Otology and Related Sciences, Philippine Society of Audiology; OR
- Masters in Clinical Audiology graduate AND member of good standing of Philippine Society of Audiology and Association of Clinical Audiologist in the Philippines

Honorarium: P3,000/ month c/o NHSRC. The coordinator shall attend the Zoom or face-to-face meeting to receive the honorarium.

D. DOH REGIONAL COORDINATOR

The DOH Appointed Newborn Hearing Coordinator shall be appointed by the DOH Regional. The credentials listed below shall be submitted the Family Health Office of the DOH. Appointments shall be final once approved by the National Technical Working Group on Newborn Hearing and shall be renewed every three (3) years unless otherwise revoked by the DOH Regional Office.

Roles and Responsibilities:

- Implements circulars, directives and projects regarding newborn hearing which includes certification of personnel, certification of facilities, hearing screening device certification, distribution of registry monitoring tools, timely submission of reports
- Coordinate and work with the following: NHSRC Assigned Regional Coordinator, Project Manager from the Family Health Office of the DOH, and the NHSRC at the NIH.
- Submit a monthly report and data (denominators and performance indicators) needed by the NHSRC
- Attend relevant meetings relevant to newborn hearing called by the FHO-DOH and/or NHSRC-NIH
- Assist in regional quality improvement activities such as audits to guide renewal of facility certification
- Present and submit an annual report during the annual consultative meeting on Newborn Hearing hosted by the FHO DOH regarding Regional data, experiences, complaints focusing on government-initiated activities or advocacies during the previous year

Skills:

- Shall have good communication, project management, research and leadership skills
- Shall have good computer skills and knowledgeable in the following programs - Microsoft Excel, Microsoft Word, Microsoft Powerpoint, Zoom

Experience:

- At least 1 year in health-related government activities. Relevant work and experience in the field of health, particularly newborn, infant and child hearing is an advantage.

Education:

- Doctor of Medicine or Clinical Audiologist or Registered Nurse or Graduate of 4-year college course.

Salary / Honorarium: Department of Health Regional Office

E. ADVISORY COMMITTEE ON NEWBORN HEARING SCREENING

To ensure sustainable inter-agency collaboration, the Advisory Committee on NHS shall be created and made an integral part of the Office of the Secretary.

The composition of the Advisory Committee on NBS created under Section 11 of Republic Act No, 9288, “Newborn Screening Act of 2004” shall be expanded to include the representatives from the PSO-HNS and the Philippine Society of Audiology. The committee shall be composed of:

1. Secretary of Health, who shall act as Chairperson;

2. Executive Director of the National Institutes of Health, who shall act as Vice Chairperson;
3. Undersecretary of the DILG;
4. Executive Director of the Council for the Welfare of Children;
5. Director of the NSRC;
6. Executive Director of the NHSRC;
7. Representative of the PSO-HNS;
8. Representative of the Philippine Society of Audiology;
9. Representative of the Association of Clinical Audiologists of the Philippines;

and three (3) representatives appointed by the Secretary of Health who shall either be a pediatrician, obstetrician-gynecologist, endocrinologist, family physician, nurse or midwife, from either the public or private sector. The three (3) representatives shall be appointed for a term of three (3) years, subject to their being reappointed for additional three (3) year periods for each extension.

Functions of the Advisory Committee on Newborn Hearing Screening:

1. Review annually and recommend risk factors to be included in the NHS.
2. Review and recommend the standard NHS hearing screening fees to be charged by NHSC for each newborn.
3. Review the report and recommendations of the TWG-UNHSP and NHSRC on the quality assurance of the NHSCs.
4. Recommend corrective measures and strategic directions as deemed necessary.

The ACNHS shall meet at least twice a year. The National Institutes of Health shall serve as the Secretariat of the Committee.

F. NATIONAL TECHNICAL WORKING GROUP (NTWG) ON UNHSP

The NTWG shall be composed of the following but not limited to:

1. Representatives from DOH offices namely: Disease Prevention and Control Bureau, Epidemiology Bureau, Health Facility Development Bureau, Health Facility and Services Regulatory Bureau, Health Promotion Bureau
2. Representatives from the Center for Health and Development
3. Representatives from Philippine National Ear Institute (PNEI-NIH),
4. Representatives from the NGO sector
5. Representatives from the PSO-HNS
6. Representatives from the Disability Affairs Office
7. Representatives from the Newborn Hearing Screening Reference Center (NHSRC-NIH)
8. Representatives from the Philippine Hospital Association
9. Representatives from the Academe

It shall have the following responsibilities and functions:

1. Develop policies standards and guidelines on newborn hearing screening for recommendations and approval and management.
2. Develop educational materials for both training and public dissemination.
3. Review and recommend the newborn hearing screening fees to be charged by the newborn hearing screening center.
4. Develop/review strategies and tools that shall ensure effective and efficient implementation of the program at various levels.
5. Formulate national program plans, proposal and collaborative studies on

newborn hearing screening.

6. Review the report of the Newborn Hearing Screening Reference Center on the performance of the newborn hearing screening centers and recommend corrective measures as deemed necessary.

G. HEALTH FACILITIES AND SERVICES REGULATORY BUREAU (HFSRB)

The HFSRB, collaboration with NIH shall be responsible for regulating health facilities performing newborn hearing screening procedures through:

1. Accreditation procedures and monitoring for compliance and quality assurance.
2. Development of needed rules and regulations pertaining to the regulation of the same.
3. Monitoring and evaluation of newborn hearing screening centers.

H. EPIDEMIOLOGY BUREAU (EB)

The NEC in collaboration with the regional/provincial epidemiology unit shall be responsible for developing a surveillance system for heritable conditions. It shall establish registry of cases linked with NIH as the central registry center, and the rural health unit as the base registry units.

I. HEALTH FACILITY DEVELOPMENT BUREAU (HFDB)

The HFDB shall provide technical assistance and advisory services related to health facility development planning, operations and management in the effective implementation of the Newborn Hearing Screening in hospitals and other related health facilities.

J. FIELD IMPLEMENTATION AND COORDINATION TEAM (FICT)

The FICT shall encourage hospitals to participate in the monitoring, research, and development efforts initiated by the stakeholders and the NIH.

K. HEALTH PROMOTION BUREAU (HPB)

The HPCS shall act as the lead office in the promotion of newborn hearing screening and shall develop advocacy materials for dissemination to all partner agencies (LGUs, Academe, NGOs) and stakeholders. All IEC materials and collaterals shall be screened and reviewed by HPCS.

L. BUREAU OF HEALTH DEVICES AND TECHNOLOGY (BHDT)

BHDT shall assist the program in the monitoring and evaluation and ensures compliance of manufacturers, distributors, advertisers and retailers of health and health-related devices and technology to health rules and regulations and standards of quality.

M. REGIONAL OFFICES (ROS)

The RO'S shall be responsible for the following:

2. Translate and implement newborn hearing screening national policies and framework at the local and regional level.
3. Provide technical and logistics assistance to LGUs, NGOs, Academic Institution, and other stakeholders.
4. Advocate for the implementation of newborn hearing screening at the regional level.
5. Reproduce newborn screening advocacy materials for general distribution.
6. Conduct training orientation and training on newborn hearing screening.
7. Host locally organized Category A Newborn Hearing Screening Certifying Courses with the help of certified local newborn hearing personnel.
8. Develop innovative approaches and models of implementation on newborn screening and local partners.
9. Establish a government and private sector collaborative partnership to plan and manage the newborn hearing screening implementation in the region.
10. Monitor and evaluate the implementation in the region.

N. DOH RETAINED HOSPITALS, OTHER GOVERNMENT AND PRIVATE HOSPITALS AND LYING-IN BIRTH FACILITIES

All DOH Retained Hospitals other government and private hospitals clinics and other health facilities shall be responsible for the following:

1. Create an NHS team to ensure implementation of NHS and coordinate with DOH.
2. Ensure that adequate and sustained newborn hearing screening services such as information, education, communication, screening recall and management of identified cases are being provided in the hospital.
3. Establish an appropriate financial system that shall ensure effective and efficient collection of fees and payment of NHS registry fees through the purchase of the NHS registry monitoring tools.
4. Conduct orientation and/or training of hospital staff on newborn hearing screening and intervention.
5. Monitor and evaluate the implementation of newborn screening within the institution.
6. Define financial packages to make newborn hearing screening, confirmatory testing and hearing loss intervention accessible particularly among the economically deprived population.
7. Establish a functional referral system with local as well national agencies

O. DEPARTMENT OF INTERIOR AND LOCAL GOVERNMENT (DILG)

The DILG shall advocate and encourage the cooperation of LGUs to take an active role in the implementation of RA 9709. Assist the DOH in the monitoring and evaluation of the program.

The LGUs through the Chief of Hospitals and Municipal Health Officers shall be responsible for the following:

1. Develop the capabilities of health workers in the implementation of RA 9709. Government health physicians and other designated health workers shall be trained and certified to conduct hearing screening tests on all newborns in their locality.

2. Appropriate budget for the training and certification of their public health workers on how to do newborn hearing screening.
3. Issue local ordinances and resolutions that integrate Newborn Hearing Screening and Intervention in the local health delivery system and the appropriation of budget such as, but not limited to, the following:
   a. Hearing screening, confirmatory equipment; and
   b. Referral of a newborn detected with hearing loss to a center for further evaluation and intervention if they are not available in the locality.
   c. Training and certification of personnel on how to conduct hearing screening;
   d. Establishment of appropriate NHSC by category in the locality;

4. Ensure that adequate and sustained local UNHSIP through continued information dissemination, education, screening, confirmation of hearing loss, recall, and follow-up.
5. Establish a functional case management for the recall and referral system with a strategically accessible NHS health facility referral center.
6. Establish coordination and networking among concerned agencies in the implementation of the program.
7. Monitor and evaluate the implementation of the program in their localities.
8. Explore/encourage creative health financing packages to make newborn hearing screening accessible particularly among the economically deprived populace.
9. Perform other roles and responsibilities as deemed necessary.

P. COUNCIL FOR THE WELFARE OF CHILDREN

This agency shall:

1. Integrate NHS in the establishment of the system for early detection, prevention, referral and intervention of congenital hearing loss and disabilities in early childhood.
2. Promote NHS as an integral part of the Early Childhood and Care Development (ECCD) programs implemented at the national, regional and local levels.
3. Provide avenues in developing innovative advocacy and communication approaches and social mobilization in partnership with civil societies, non-government organizations and other groups.
4. Include NHS-related indicators in the monitoring and evaluation system of child advocacy programs.

Q. ACADEME, HEALTH PROFESSIONAL SOCIETIES, NATIONAL ORGANIZATION OF HEALTH PROFESSIONALS

These agencies shall:

1. Ensure that all its members are aware of the significance of newborn hearing screening and early intervention to their clients, families and the society at large.
2. Define mechanisms that shall ensure and monitor that its members are doing their moral and social obligations to inform parents about the significance of Newborn Hearing Screening and Early Intervention.
3. Recommend the inclusion of NHS as part of the curricula of all allied health professionals.

IX. RESEARCH AND DEVELOPMENT

Robust information from actual operations is needed to provide evidence of the achievement of the goals set out by the law. Such information can be obtained from the data generated from screening, further testing and early intervention activities, captured and aggregated as near real time as possible. This shall be used to further improve the program through optimization of screening, diagnostic, and intervention protocols.

Further research on the following topics shall be made:

- Cost analysis studies of the existing UNHSP
- Identification of causes and risk factors for hearing loss among newborns
- Longitudinal research on the efficacy and quality of early intervention strategies for children diagnosed with hearing loss through the newborn hearing screening program, and their families (speech & language development, QOL post-intervention)
- Factors affecting compliance to UNHSP by parents/guardians, or NHSP personnel (including socio-economic determinants)
- Identification of methods to enhancing availability and accessibility of NHSCs
- Development of community –based screening methods

X. FUNDING AND SUSTAINABILITY

A. GENERAL CONSIDERATIONS

All offices concerned shall allocate resources in support of the newborn hearing screening system. External agencies are encouraged to provide funds for the implementation of newborn hearing screening and early intervention.

Funds for the program shall be derived from the funds for Child Health and Development. Supplemental funds and other resources shall be sourced out from extension services and other key stakeholders. LGUs shall be encouraged to provide funds for the implementation of newborn hearing screening program.

Funds from the sale of newborn hearing screening registry monitoring tools, fees from certifying courses, fees from device and alternative methods evaluation and other technical advisory services related to newborn hearing screening and intervention shall be used to maintain the operations of the NHSRC which is primarily but is not limited to the maintenance of the newborn hearing screening registry database.

B. PRICE CAP REGULATIONS FOR TESTS AND SERVICES RELATED TO NEWBORN OR INFANT HEARING

The price cap regulations shall be applied for tests and services related to newborn or infant hearing which shall include but not limited to:

1. Newborn hearing screening using Otoacoustic Emissions (OAE)
2. Newborn hearing screening using Automated Auditory Brainstem Response (AABR)
3. Confirmatory testing using Auditory Brainstem Response (ABR)
4. Confirmatory testing using Auditory Steady State response (ASSR)
5. Behavioral Audiometry
6. Visual Reinforcement Audiometry
7. Aided testing

8. Cochlear implant programming
9. Speech therapy with patient wearing hearing aid / cochlear implant
10. Occupational therapy for hard at hearing
11. Surgical procedures related to restoration or improvement in hearing (atresia, microtia, canalplasty, meatoplasty, middle ear surgery, BAHA, cochlear implantation)

Government hearing facilities shall charge as follows (as discussed in the 2019 NTWG meeting[19]):

Class A	Philhealth coverage + 200% of Philhealth coverage
Class B	Philhealth coverage + 150% of Philhealth coverage
Class C	Philhealth coverage + 100% of Philhealth coverage
Class D	No additional if with Philhealth

For **private hearing facilities**, the Class A rules for government facilities shall apply. If the test or service is not covered by Philhealth or if the facility offering the service is not a Philhealth-accredited facility then the price cap rules are not applicable. There is no reader for OAE and AABR as the results are automated. Hence, no reader's fee can be charged for OAE and AABR. The cost of the RMTs shall be included in the total cost of Newborn Hearing Screening and cannot be charged separately.

C. COMPONENTS NEEDING FUNDING

There are approximately 1.6 million newborns per year, with 5.5% born at home[20]. To implement the program, the following are the components that need funding:

Newborn Hearing Screening Centers in regions where there are no private licensed providers:

1. Screening equipment such as OAE and AABR
2. Confirmatory or definitive tests such as ABR, ASSR and behavioral tests
3. Hearing aid fitting equipment
4. Staff (manager, audiometricians, audiologists) for the centers

Department of Health (CHD) and NIH-NHSRC:

1. Training workshops (honorarium for facilitators, manuals, exam and certificates)
2. NHS Center licensing (transportation cost and honorarium of inspector)
3. Registry monitoring tools
5. Courier / electronic transmission fees for forms
6. Registry / data management facility at the NIH
7. Salaries of NIH-NHSRC staff
8. Project development
9. Educational materials development
2. Information dissemination and advocacy activities
3. Database development
4. Standards development (evaluation of new methods and technologies)

D. SOURCES OF FUNDING

The following can be the sources of funding:

1. Sale of newborn hearing screening registry cards or seals / access to database (Php 50.00 per infant)
2. Fees derived from certification and training
3. General Appropriations Act – DOH and NIH Philippines
4. Philippine Health Insurance Corporation (PhilHealth)
5. Research and project grants from government and private sectors

E. SUSTAINABILITY OF THE PROGRAM

It is envisioned that all NHSC shall be financially sustainable not just from provision of hearing tests but also from a broader array of hearing services for the hearing impaired covering a wider population base. Centers shall strive to provide services that are of real value while improving internal efficiencies and achieving economies of scale.

XI. ADVOCACY AND INFORMATION DISSEMINATION

The objectives for advocacy and information dissemination are to provide awareness of the Universal Newborn Hearing Screening Program and to encourage those who are already practicing to continue with the implementation of UNHS.

The target groups are parents, potential parents (those applying for a marriage license) or guardians as well as the different disciplines, organizations who provide care to women and children. Dissemination can be carried out through seminars/workshops, broadcast media, internet, social networking or small print media such as posters or brochures advocated by the NIH and DOH (Appendices Q and R).

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XIII. APPENDICES

Appendix A. Republic Act 9709

S. No. 2390
H. No. 2677

Republic of the Philippines
Congress of the Philippines
Metro Manila

Fourteenth Congress

Second Regular Session

Begun and held in Metro Manila, on Monday, the twenty-eighth day of July, two thousand eight.

[REPUBLIC ACT NO. 9709]

AN ACT ESTABLISHING A UNIVERSAL NEWBORN HEARING SCREENING PROGRAM FOR THE PREVENTION, EARLY DIAGNOSIS AND INTERVENTION OF HEARING LOSS

Be it enacted by the Senate and House of Representatives of the Philippines in Congress assembled:

SECTION 1. *Short Title.* – This Act shall be known as the "Universal Newborn Hearing Screening and Intervention Act of 2009".

SEC. 19. *Effectivity Clause.* – This Act shall take effect fifteen (15) days after its publication in at least two (2) newspapers of general circulation.

Approved,

PROSPERO C. NOGRALES
Speaker of the House of Representatives

President of the Senate

This Act which is a consolidation of Senate Bill No. 2390 and House Bill No. 2677 was finally passed by the Senate and the House of Representatives on June 3, 2009.

MARILYN B. BARUA-YAP
Secretary General
House of Representatives

EMMA LIRIO-REYES
Secretary of the Senate

Approved: AUG 12 2009

GLORIA MACAPAGAL-ARROYO
President of the Philippines

o

PGMA Hologram # 50384

http://www.senate.gov.ph/republic_acts/ra%209709.pdf

Appendix B. Administrative Order No. 2010-0020 (Implementing Rules and Regulations)

Republic of the Philippines
Department of Health
OFFICE OF THE SECRETARY

June 28, 2010

ADMINISTRATIVE ORDER
No. 2010 – 0020

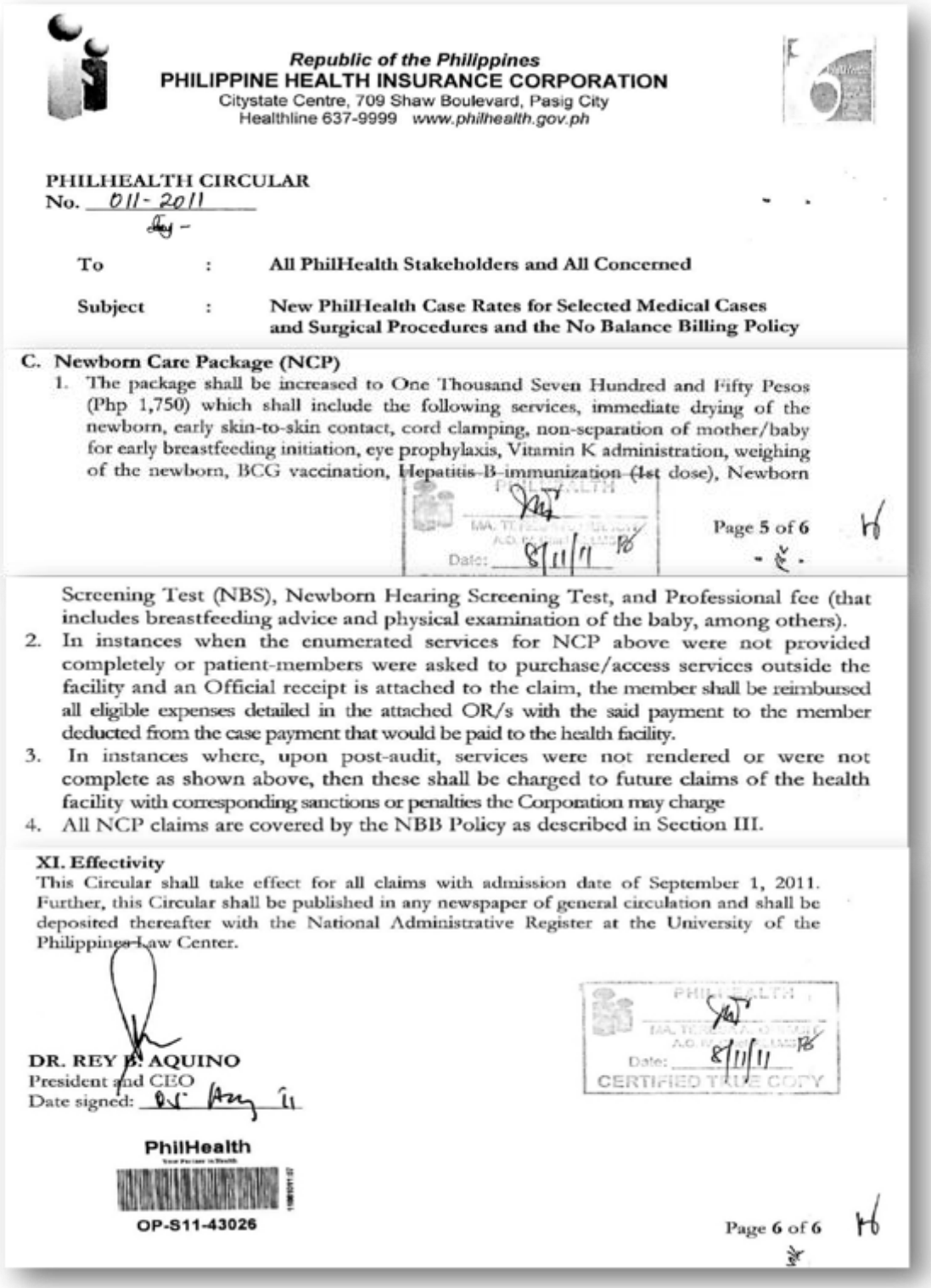
SUBJECT: **RULES AND REGULATIONS IMPLEMENTING REPUBLIC ACT (R.A.) NO. 9709 OTHERWISE KNOWN AS THE "UNIVERSAL NEWBORN HEARING SCREENING ACT OF 2009"**

The following rules and regulations are hereby promulgated to implement **Republic Act (R.A.) No. 9709**, otherwise known as the **Universal Newborn Hearing Screening and Intervention Act of 2009**, an act establishing a **Universal Newborn Hearing Screening (UNHSP) Program** for the prevention, early diagnosis, and intervention of hearing loss.

SECTION 29. ***Effectivity Clause*** – This Implementing Rules and Regulation shall take effect immediately after its publication in a newspaper of general circulation.

6/28/10
ESPERANZA I. CABRAL, MD
Secretary of Health

Appendix C. Philhealth Circular No. 011-2011 (Newborn Care Package)



Republic of the Philippines
PHILIPPINE HEALTH INSURANCE CORPORATION
Citystate Centre, 709 Shaw Boulevard, Pasig City
Healthline 637-9999 *www.philhealth.gov.ph*

PHILHEALTH CIRCULAR
No. 011-2011

To : **All PhilHealth Stakeholders and All Concerned**

Subject : **New PhilHealth Case Rates for Selected Medical Cases and Surgical Procedures and the No Balance Billing Policy**

C. Newborn Care Package (NCP)

1. The package shall be increased to One Thousand Seven Hundred and Fifty Pesos (Php 1,750) which shall include the following services, immediate drying of the newborn, early skin-to-skin contact, cord clamping, non-separation of mother/baby for early breastfeeding initiation, eye prophylaxis, Vitamin K administration, weighing of the newborn, BCG vaccination, Hepatitis B immunization (1st dose), Newborn Screening Test (NBS), Newborn Hearing Screening Test, and Professional fee (that includes breastfeeding advice and physical examination of the baby, among others).
2. In instances when the enumerated services for NCP above were not provided completely or patient-members were asked to purchase/access services outside the facility and an Official receipt is attached to the claim, the member shall be reimbursed all eligible expenses detailed in the attached OR/s with the said payment to the member deducted from the case payment that would be paid to the health facility.
3. In instances where, upon post-audit, services were not rendered or were not complete as shown above, then these shall be charged to future claims of the health facility with corresponding sanctions or penalties the Corporation may charge
4. All NCP claims are covered by the NBB Policy as described in Section III.

PHILHEALTH Date: 8/11/11

Page 5 of 6

XI. Effectivity

This Circular shall take effect for all claims with admission date of September 1, 2011. Further, this Circular shall be published in any newspaper of general circulation and shall be deposited thereafter with the National Administrative Register at the University of the Philippines Law Center.

PHILHEALTH Date: 8/11/11 CERTIFIED TRUE COPY

DR. REY B. AQUINO
President and CEO
Date signed: 8/11/11

PhilHealth

OP-S11-43026

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Appendix D. Department of Health Department Personnel Order No 2014-2433 (Creation of an NTWG)

Republic of the Philippines
Department of Health
OFFICE OF THE SECRETARY

May 22, 2014

DEPARTMENT PERSONNEL ORDER
No. 2014- 2433

SUBJECT: **Creation of a National Technical Working Group (NTWG) on the Implementation of Universal Newborn Hearing Screening Program Under the Family Health Office-Women, Children and Family Cluster (FHO-WCFHC)**

In an effort to emphasize the importance of early detection and intervention for infants with hearing loss, there is a need for the Universal Newborn Hearing Program to institutionalize measures for the prevention and early diagnosis of congenital hearing loss among newborn.

Recognizing the urgency and importance to prepare for the implementation of the Universal Newborn Hearing Screening Program, a National Technical Working Group (NTWG) shall be created under the Family Health Office-Women, Children and Family Health Cluster (FHO-WCFHC). The NTWG shall be composed of personnel and staff from the Department of Health and representatives from different concerned institutions:

	NAME	DESIGNATION
1.	Director (FHO)	Chairperson
2.	Executive Director (NHSRC-NIH)	Co-chairperson
3.	Dr. Anthony P. Calibo (FHO)	Member
4.	Dr. Rosario Ricalde (NHSRC)	Member
5.	Dr. Maria Rina Quintos (NHSRC)	Member
6.	Representative (PSAUD)	Member
7.	Representative (PANORS)	Member
8.	Representative (HPCS-Director)	Member
9.	Dr. Agnes Segarra (Epidemiology Bureau)	Member
10.	Dr. Cynthia Rosuman (HFSRB)	Member
11.	Representative (HFDB)	Member
12.	Representative (FDA)	Member
13.	Representative (MDG Team- PhilHealth)	Member
14.	Representative (RHO-NCR)	Member
15.	Representative (DepEd)	Member
16.	Representative (NSRC)	Member
Secretariat:		
17.	Lita L. Orbillo	Family Health Office
18.	Ms. Karen Arevalo	NHSRC

Building 1, San Lazaro Compound, Rizal Avenue, Sta. Cruz, 1003 Manila • Trunk Line 651-7800 Direct Line: 711-9501
Fax: 743-1829; 743-1786 • URL: http://www.doh.gov.ph; e-mail: osec@doh.gov.ph

Appendix E. Checklist for Category A Facility Certification

NEWBORN HEARING SCREENING REFERENCE CENTER

National Institutes of Health - University of the Philippines Manila

Rm 105B, G/F NIH Bldg, UP Manila, 623 Pedro Gil Street, Ermita, Manila, Philippines 1000
Telephone: (02) 8569 3767 Email: nhsrc.nih@gmail.com

Website: newbornhearingscreening.ph

CHECKLIST FOR FACILITY CERTIFICATION: CATEGORY A

ASSESSMENT TOOL FOR FACILITY CERTIFICATION
CATEGORY A: NEWBORN HEARING SCREENING CENTER

I. FACILITY INFORMATION

Name of Facility			
Complete Address			
	No. & Street	Barangay	
	City / Municipality	Province	Region
Contact Number of Facility (if any)			
E-mail Address of Facility (if any)			
Name of Owner			
Name of Facility Manager			
Cellphone of Manager			
Email of Manager			
NHSRC Facility Code (if renewal)			
Classification According to			
Ownership:	[ ] Government	[ ] Private	
Institutional Character:	[ ] Free-standing	[ ] Institution-Based	

NEWBORN HEARING SCREENING REFERENCE CENTER

National Institutes of Health - University of the Philippines Manila

Rm 105B, G/F NIH Bldg, UP Manila, 623 Pedro Gil Street, Ermita, Manila, Philippines 1000
Telephone: (02) 8569 3767 Email: nhsrc.nih@gmail.com

Website: newbornhearingscreening.ph

II. TECHNICAL REQUIREMENTS

Instruction to the Applicant: Please prepare all the necessary documents enumerated below.
Instruction to the Inspector: In the appropriate box, place a check mark (✓) if the facility is compliant or X mark (X) if it is not compliant.

STANDARDS AND REQUIREMENTS	COMPLIANT	REMARKS
A. PERSONNEL A Category A Facility shall be managed by either a physician or a Clinical Audiologist. Screener/s must be at least 19 years of age, High-school graduate and computer literate. Both manager and screener/s must comply with the minimum requirements set by the NHSRC.		
1. Manager		
a. Diploma in Masters in Clinical Audiology for Clinical Audiologists OR Valid PRC ID for Physicians		
a. A valid certificate of Category A Newborn Hearing Screening Personnel Certifying Course		
b. Facility ID/ Memorandum of Agreement/ Contract of Appointment or Designation (for employees)		
2. Screener (1)		
a. Valid ID (PRC license for healthcare professionals/ company ID)		
b. A valid certificate of Category A Newborn Hearing Screening Personnel Certifying Course		
Screener (2)		
a. Valid ID (PRC license for healthcare professionals/ company ID)		

b. A valid certificate of Category A Newborn Hearing Screening Personnel Certifying Course		
Screener (3)		
a. Valid ID (PRC license for healthcare professionals/ company ID)		
b. A valid certificate of Category A Newborn Hearing Screening Personnel Certifying Course		
B. EQUIPMENT		
Hearing Screening Equipment 1 Type: [ ] Otoacoustic Emission (OAE) [ ] Automated Auditory Brainstem Response (AABR)		
a. Brand / Model:		
b. Serial Number:		
c. Annual calibration certificate		
Hearing Screening Equipment 2 Type: [ ] Otoacoustic Emission (OAE) [ ] Automated Auditory Brainstem Response (AABR)		
a. Brand / Model:		
b. Serial Number:		
c. Annual calibration certificate		
C. PHYSICAL FACILITY Every hearing screening facility shall have a physical facility with adequate areas in order to safely, effectively and efficiently provide hearing screening services to the newborns.		
a. Sufficient space for 1 chair or bassinet and a table enough to carry hearing screening equipment, laptop/desktop and printer		

b. Ambient noise should not be more than 50 dBA		
D. OPERATIONS		
a. Refusal Form		
b. Educational material / brochure		
c. Records of newborns screened		
d. Monthly report submitted to NHSRC		

III. DEMONSTRATION

Instruction to the applicant: The following item should be demonstrated in the video recording.
Instruction to the Inspector: In the appropriate box, place a check mark (✓) if the facility is compliant or X mark (X) if it is not compliant.

ITEM	Place a check mark (✓) if the facility is compliant or X mark (X) if it is not compliant .	EVALUATOR'S COMMENT (IF NON-COMPLIANT) (REASON FOR NOT EARNING SCORE)
INTRODUCTION a. Name b. Position c. Name of facility **Camera View: Face the camera, remove facemask and introduce yourself and the facility.**		
ROOM MEASUREMENT		
a. **OAE/ AABR Room-** Sufficient space for 1 chair or bassinet and a		

table enough to carry hearing screening equipment, laptop/desktop and printer. **Camera View: Show actual room with complete equipment.**		
AMBIENT NOISE		
a. Should not be more than 50 dBA for OAE/AABR **Camera View: Show actual sound level meter while measuring the ambient noise of the room.**		
DEVICE CHECK		
OAE/ AABR machine check if it is in good working condition. **Camera View: Show actual parameters in a clear view and test a sample patient to check if the machine is working properly.**		
RESULT TEMPLATE: ❑ OAE or AABR Screening following the recommended format in the MOP. **Submit the following in PDF forms.**		
OTHER		

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Website: newbornhearingscreening.ph

REQUIREMENTS: PPE, cotton, alcohol **Camera View: Show actual materials.**		

MONITORING AND VALIDATION OF INFORMATION

❑ I hereby confirm that the information provided by me is true and correct. By signing below I acknowledge that the inspectors assigned to our facility can check and verify the information I have given.

_____
Printed Name and Signature

Inspected by:

Printed Name	Signature	Position / Designation / Office

Received by:

Signature _____
Printed Name _____
Position/Designation _____
Date _____

Appendix F. Checklist for Category B Facility Certification

NEWBORN HEARING SCREENING REFERENCE CENTER

National Institutes of Health - University of the Philippines Manila

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Telephone: (02) 8569 3767 Email: nhsrc.nih@gmail.com

Website: newbornhearingscreening.ph

CHECKLIST FOR FACILITY CERTIFICATION: CATEGORY B

ASSESSMENT TOOL FOR FACILITY CERTIFICATION
CATEGORY B: NEWBORN HEARING SCREENING CENTER

I. FACILITY INFORMATION

Name of Facility		
Complete Address		
	No. & Street	Barangay
	City / Municipality	Province Region
Contact Number of Facility (if any)		
E-mail Address of Facility (if any)		
Name of Owner		
Name of Facility Manager		
Cellphone of Manager		
Email of Manager		
NHSRC Facility Code (if renewal)		
Classification According to		
Ownership:	[ ] Government	[ ] Private
Institutional Character:	[ ] Free-standing	[ ] Institution-Based

II. TECHNICAL REQUIREMENTS

Instruction to the Applicant: Please prepare all the necessary documents enumerated below.
Instruction to the Inspector: In the appropriate box, place a check mark ( ) if the facility is compliant or X mark (X) if it is not compliant.

STANDARDS AND REQUIREMENTS	COMPLIANT	REMARKS
A. PERSONNEL • A Category B Facility shall be managed by a Clinical Audiologist or Physician however ABR and ASSR results should be interpreted by a Clinical Audiologist or PANORS member with ABR Reader Certificate given in 2013. • Confirmatory test procedure should always be under the supervision of the Clinical Audiologist/ PANORS with ABR Reader Certificate. • Category A Screener/s must be at least 19 years of age, High-school graduate and computer literate. • All personnel under Category B must comply with the minimum requirements set by the NHSRC.		
1. Manager		
a. Diploma in Masters in Clinical Audiology for Clinical Audiologists OR Valid PRC ID for Physicians		
b. A valid certificate of Newborn Hearing Screening Personnel Certifying Course		
c. Company ID or Contract of Appointment/ Memorandum of Agreement as Clinical Audiologist/ Manager (for managing more than 1 facility)		
2. Audiologist and/or ENT (optional; other than manager)		
a. Masters in Clinical Audiology Diploma OR Valid PRC ID and ABR		

Reader Certificate		
b. Orientation and updates of Category A Newborn Hearing Screening (RA9709)		
c. Facility ID/ Memorandum of Agreement/ Contract of Appointment or Designation (for employees)		
3. Screener (1)		
a. Valid ID (PRC license for healthcare professionals/ company ID)		
b. A valid certificate of Category A Newborn Hearing Screening Personnel Certifying Course		
Screener (2)		
a. Valid ID (PRC license for healthcare professionals/ company ID)		
b. A valid certificate of Category A Newborn Hearing Screening Personnel Certifying Course		
Screener (3)		
a. Valid ID (PRC license for healthcare professionals/ company ID)		
b. A valid certificate of Category A Newborn Hearing Screening Personnel Certifying Course		
4. ABR Technician		
a. Valid ID (PRC license for healthcare professionals)		

b. Orientation and updates of Category A Newborn Hearing Screening (RA9709)		
c. Certificate of training (equipment: ABR, ASSR and Middle Ear Analyzer) by distributor or signed by the in-house Audiologist		
B. EQUIPMENTS		
Hearing Screening Equipment 1 **Type:** [ ] Otoacoustic Emission (OAE) [ ] Automated Auditory Brainstem Response (AABR)		
a. Brand / Model:		
b. Serial Number:		
c. Annual calibration certificate		
Hearing Screening Equipment 2 **Type:** [ ] Otoacoustic Emission (OAE) [ ] Automated Auditory Brainstem Response (AABR)		
a. Brand / Model:		
b. Serial Number:		
c. Annual calibration certificate		
Confirmatory Test Type: [ ] Auditory Brainstem Response (ABR) [ ] Auditory Steady State Response (ASSR)		
a. Brand / Model:		
b. Serial Number:		
c. Annual calibration certificate		
d. For ABR: Specs if capable of frequency specific		

Tympanometer/ Middle Ear Analyzer		
a. Brand / Model:		
b. Serial Number:		
c. Annual calibration certificate		
C. PHYSICAL FACILITY Every hearing screening facility shall have a physical facility with adequate areas in order to safely, effectively and efficiently provide hearing screening, diagnostic and behavioral test services to the newborns.		
a. **OAE/AABR Room-** Sufficient space for 1 chair or bassinet and a table enough to carry hearing screening equipment, laptop/desktop and printer. (Ambient noise should not be more than 50dBA) b. **ABR, ASSR Room-** Sufficient space for 1 bed and a table enough to carry hearing diagnostic equipment, laptop/desktop, printer and other materials for skin preparation.		
D. OPERATIONS		
a. Refusal Form		
b. Educational material / brochure		
c. Records of newborns screened		
d. Monthly report submitted to NHSRC		

III. DEMONSTRATION

Instruction to the applicant: The following item should be demonstrated in the video recording.
Instruction to the Inspector: In the appropriate box, place a check mark ( ) if the facility is compliant or X mark (X) if it is not compliant.

ITEM	Place a check mark ( ) if the facility is compliant or X mark (X) if it is not compliant.	EVALUATOR'S COMMENT (IF NON-COMPLIANT) (REASON FOR NOT EARNING SCORE)
INTRODUCTION a. Name b. Position c. Name of facility **Camera View: Face the camera, remove facemask and introduce yourself and the facility.**		
ROOM MEASUREMENT		
a. **OAE/AABR Room-** Sufficient space for 1 chair or bassinet and a table enough to carry hearing screening equipment, laptop/desktop and printer. b. **ABR, ASSR Room-** Sufficient space for 1 bed and a table enough to carry hearing diagnostic equipment, laptop/desktop, printer and other materials		

for skin preparation. **Camera View: Show actual room with complete equipment.**		
AMBIENT NOISE		
a. Should not be more than 50 dBA for OAE/AABR **Camera View: Show actual sound level meter while measuring the ambient noise of the room.**		
DEVICE CHECK		
OAE / AABR machine check if it is in good working condition. **Camera View: Show actual parameters in a clear view and test a sample patient to check if the machine is working properly.**		
ABR TEST PARAMETERS **Camera View: Show actual parameters in a clear view and test a sample patient to check if the machine is working properly.** **NOTE: Equipment is capable for Bone ABR and frequency specific testing.**		
a. Subject state *TICK: NATURAL SLEEP or under sedation* b. Transducer		

TICK: Inserts, bone conductor and headphone c. Electrode montage (as required by machine and/or NHSRC) d. Channels (1 or 2 channels) e. Time window: (0-20ms) f. Number of sweeps : 2,000 sweeps g. Stimulus (click and toneburst minimum requirement) h. Stimulus Intensity (at least up to 90dB) i. Stimulus frequency (frequency specific ABR using toneburst, 500. 1k, 2k, 4k) j. Stimulus rate: (23 to 39.1sec) k. Stimulus Polarity: *TICK* *condensation *rarefraction *alternating l. Grounding m. Impedance Check		

ASSR PARAMETERS **Camera View: Show actual parameters in a clear view and test a sample patient to check if the machine is working properly.**		
GROUNDING AND IMPEDANCE (test must be perform for the evaluators to see if enough grounding and impendance are met; 5 and below) Artifacts rate must be less than 10% of the recorded response rate.		
Tympanometer/MIddle ear analyzer **Camera View: Show actual parameters in a clear view and test a sample patient to check if the machine is working properly.**		
RESULT TEMPLATE: - OAE/ AABR - ABR/ ASSR Diagnostic (Series of results at least 5 most recent) - Tympanometer and Middle Ear Analyzer **Submit the following in PDF forms.**		
OTHER REQUIREMENTS: a. Otoscope		

b. Skin preparation solution c. Gauze, cotton, alcohol d. PPE **Camera View: Show actual materials.**		

MONITORING AND VALIDATION OF INFORMATION

☐ I hereby confirm that the information provided by me is true and correct. By signing below I acknowledge that the inspectors assigned to our facility can check and verify the information I have given.

_____
Printed Name and Signature

Inspected by:

Printed Name	Signature	Position / Designation / Office

Received by:

Signature _____
Printed Name _____
Position/Designation _____
Date _____

Appendix G. Checklist for Category C Facility Certification

NEWBORN HEARING SCREENING REFERENCE CENTER
National Institutes of Health - University of the Philippines Manila
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1000Telephone: (02) 8569 3767 Email: nhsrc.nih@gmail.com
Website: newbornhearingscreening.ph

CHECKLIST FOR FACILITY CERTIFICATION: CATEGORY C

ASSESSMENT TOOL FOR FACILITY CERTIFICATION
CATEGORY C: NEWBORN HEARING SCREENING CENTER

I. FACILITY INFORMATION

Name of Facility	
Complete Address	
	No. & Street Barangay
	City / Municipality Province Region
Contact Number of Facility (must have facility not just manager or screener number)	
E-mail Address of Facility (if any)	
Name of Owner	
Name of Facility Manager	
Cellphone of Manager	
Email of Manager	
NHSRC Facility Code (if renewal)	
Classification According to	
Ownership:	[ ] Government [ ] Private
Institutional Character:	[ ] Free-standing [ ] Institution-Based

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Website: newbornhearingscreening.ph

II. TECHNICAL REQUIREMENTS

Instruction to the Applicant: Please prepare all the necessary documents enumerated below.
Instruction to the Inspector: In the appropriate box, place a check mark ( ) if the facility is compliant or X mark (X) if it is not compliant.

STANDARDS AND REQUIREMENTS	COMPLIANT	REMARKS
A. PERSONNEL • A Category C Facility shall be managed by a Clinical Audiologist. • ABR and ASSR results should be interpreted by a Clinical Audiologist or PANORS member with ABR Reader Certificate given in 2013. • Confirmatory test procedure should always be under the supervision of the Clinical Audiologist/ PANORS with ABR Reader Certificate. • Category A Screener/s must be at least 19 years of age, High-school graduate and computer literate. • All personnel under Category C must comply with the minimum requirements set by the NHSRC. • Pediatric Audiometry, Hearing aid evaluation and verification test should always be under the supervision of the Clinical Audiologist. • Should have a Developmental Pediatrician and Speech Pathologist and/or occupational therapist.		
1. Manager		
a. Diploma in Masters in Clinical Audiology for Clinical Audiologists		
b. A valid certificate of Category A Newborn Hearing Screening Personnel Certifying Course		
c. Company ID or Contract of Appointment/ Memorandum of Agreement as Clinical Audiologist/ Manager (for managing more than 1 facility)		
2. Audiologist and/or ABR Reader		
a. Diploma in Masters in Clinical Audiology for Clinical Audiologists OR Valid PRC ID and PANORS ABR Reader Certificate		
b. Orientation and updates of Category A Newborn Hearing		

Screening (RA9709)		
c. Company ID or Contract of Appointment/ Memorandum of Agreement as Clinical Audiologist/ Manager (for managing more than 1 facility)		
3. Screener (1)		
a. Valid ID (PRC license for healthcare professionals/ company ID)		
b. A valid certificate of Category A Newborn Hearing Screening Personnel Certifying Course		
Screener (2)		
a. Valid ID (PRC license for healthcare professionals/ company ID)		
b. A valid certificate of Category A Newborn Hearing Screening Personnel Certifying Course		
Screener (3)		
a. Valid ID (PRC license for healthcare professionals/ company ID)		
b. A valid certificate of Category A Newborn Hearing Screening Personnel Certifying Course		
4. ABR Technician and/or Audiometrician		
a. Valid ID (PRC license for healthcare professionals/ company ID)		
b. A valid certificate of Category A Newborn Hearing Screening Personnel Certifying Course		
c. Certificate of training (equipment: ABR and ASSR, Audiometer, Middle		

Ear Analyzer and Real Ear Measurement) by distributor or signed by the in-house Audiologist		
5. Developmental Pediatrician		
a. Valid PRC license		
b. Residency certificate		
c. Fellowship certificate in Developmental Pediatrics		
d. Fellowship certificate from Philippine Pediatric Society		
e. Orientation and updates of Category A Newborn Hearing Screening (RA9709)		
6. Speech therapist and/or occupational therapist		
a. Diploma		
b. Orientation and updates of Category A Newborn Hearing Screening (RA9709)		
B. EQUIPMENTS		
Hearing Screening Equipment 1 **Type:** [ ] Otoacoustic Emission (OAE) [ ] Automated Auditory Brainstem Response (AABR)		
a. Brand / Model:		
b. Serial Number:		
c. Annual calibration certificate		
Hearing Screening Equipment 2 **Type:** [ ] Otoacoustic Emission (OAE) [ ] Automated Auditory Brainstem Response (AABR)		
a. Brand / Model:		

b. Serial Number:		
c. Annual calibration certificate		
Confirmatory Test Type: [ ] Auditory Brainstem Response (ABR) [ ] Auditory Steady State Response (ASSR)		
a. Brand / Model:		
b. Serial Number:		
c. Annual calibration certificate		
d. For ABR: Specs if capable of frequency specific		
Tympanometer and Middle Ear Analyzer		
a. Brand / Model:		
b. Serial Number:		
c. Annual calibration certificate		
4. **Diagnostic or Clinical Audiometer**		
a. Brand / Model:		
b. Serial Number:		
c. Annual calibration certificate		
5. Real Ear Measurement (REM)		
a. Brand / Model:		
b. Serial Number:		
c. Annual calibration certificate		

C. PHYSICAL FACILITY Every hearing screening facility shall have a physical facility with adequate areas in order to safely, effectively and efficiently provide hearing screening, diagnostic and behavioral test services to the newborns.		
a. **OAE/AABR Room-** Sufficient space for 1 chair or bassinet and a table enough to carry hearing screening equipment, laptop/desktop and printer. (Ambient noise should not be more than 50 dBA) b. **ABR, ASSR Room-** Sufficient space for 1 bed and a table enough to carry hearing diagnostic equipment, laptop/desktop, printer and other materials for skin preparation. c. **For Behavioral Test using Diagnostic Audiometer-** Sound treated booth, toys and reinforcers.		
D. OPERATIONS		
a. Refusal Form		
b. Educational material / brochure		
c. Records of newborns screened		
d. Monthly report submitted to NHSRC		

III. DEMONSTRATION

Instruction to the applicant: The following item should be demonstrated in the video recording.
Instruction to the Inspector: In the appropriate box, place a check mark ( ) if the facility is compliant or X mark (X) if it is not compliant.

ITEM	Place a check mark ( ) if the facility is compliant or X mark (X) if it is not compliant.	EVALUATOR'S COMMENT (IF NON-COMPLIANT) (REASON FOR NOT EARNING SCORE)
INTRODUCTION a. Name b. Position		

c. Name of facility **Camera View: Face the camera, remove facemask and introduce yourself and the facility.**		
ROOM MEASUREMENT		
a. **OAE/ AABR Room-** Sufficient space for 1 chair or bassinet and a table enough to carry hearing screening equipment, laptop/desktop and printer. b. **ABR, ASSR Room-** Sufficient space for 1 bed and a table enough to carry hearing diagnostic equipment, laptop/desktop, printer and other materials for skin preparation. c. **For Behavioral Test using Diagnostic Audiometer-** Sound treated booth, toys and reinforcers. **Camera View: Show actual room with complete equipment.**		
AMBIENT NOISE		

a. Should not be more than 50 dBA for OAE/AABR b. Sound treated booth **Camera View: Show actual sound level meter while measuring the ambient noise of the room.**		
DEVICE CHECK		
OAE/ AABR machine check if it is in good working condition. **Camera View: Show actual parameters in a clear view and test a sample patient to check if the machine is working properly.**		
ABR TEST PARAMETERS **Camera View: Show actual parameters in a clear view and test a sample patient to check if the machine is working properly.** **NOTE: Equipment is capable for Bone ABR and frequency specific testing.**		
a. Subject state *TICK: NATURAL SLEEP or under sedation* b. Transducer *TICK: Inserts, bone conductor and headphone* c. Electrode		

montage (as required by machine and/or NHSRC) d. Channels (1 or 2 channels) e. Time window: (0-20ms) f. Number of sweeps : 2,000 sweeps g. Stimulus (click and toneburst minimum requirement) h. Stimulus Intensity (at least up to 90dB) i. Stimulus frequency (frequency specific ABR using toneburst, 500. 1k, 2k, 4k) j. Stimulus rate: (23 to 39.1sec) k. Stimulus Polarity: *TICK* *condensation *rarefraction *alternating l. Grounding m. Impedance Check		
ASSR PARAMETERS **Camera View: Show actual parameters in a clear view and test a sample patient to check if the machine is working properly.**		
GROUNDING AND IMPEDANCE		

(test must be perform for the evaluators to see if enough grounding and impendance are met; 5 and below) Artifacts rate must be less than 10% of the recorded response rate.		
Tympanometer/Middle ear analyzer **Camera View: Show actual parameters in a clear view and test a sample patient to check if the machine is working properly.**		
Hearing aid fitting equipment		
a. Hearing aid model/brand (Submit a PDF file copy of specs of the hearing aid model) b. Laptop and/or computer with fitting software c. Programming cable d. Hearing aid batteries e. Ear Impression material kit f. Hearing aid trial fitting kit g. Others (such as Hearing aid accessories)		

Camera View: Show actual hearing aid trial and fitting room with equipment (as mentioned above).		
Real Ear Measurement (REM)		
REM machine check if it is in good working condition. **Camera View: Show actual parameters in a clear view and test to check if the machine is working properly.**		
RESULT TEMPLATE: - OAE/ AABR - ABR/ ASSR Diagnostic (Series of results at least 5 most recent) - Tympanometer / Middle Ear Analyzer - Play audiometry official result - Behavioral Test (VROA, etc) official result - REM official result **Submit the following in PDF forms.**		
OTHER REQUIREMENTS: a. Otoscope b. Skin preparation solution		

c. Gauze, cotton, alcohol d. PPE **Camera View: Show actual materials**		

MONITORING AND VALIDATION OF INFORMATION

☐ I hereby confirm that the information provided by me is true and correct. By signing below I acknowledge that the inspectors assigned to our facility can check and verify the information I have given.

_____
Printed Name and Signature

As part of monitoring:

Category C centers are expected to share with NHSRC their regular scheduled meetings (at least quarterly schedule meeting) , to be attended by NHSRC inspector/ representative and /or minutes of the meeting.

Agenda: to check or present census, monitoring of patient, status or progress of program, etc.

Inspected by:

Printed Name	Signature	Position / Designation / Office

Received by:

Signature _____
Printed Name _____
Position/Designation _____
Date _____

Appendix H. Checklist for Category D Facility Certification

NEWBORN HEARING SCREENING REFERENCE CENTER
National Institutes of Health - University of the Philippines Manila
Rm 105B, G/F NIH Bldg, UP Manila, 623 Pedro Gil Street, Ermita, Manila, Philippines
1000Telephone: (02) 8569 3767 Email: nhsrc.nih@gmail.com
Website: newbornhearingscreening.ph

CHECKLIST FOR FACILITY CERTIFICATION: CATEGORY D

ASSESSMENT TOOL FOR FACILITY CERTIFICATION
CATEGORY D: NEWBORN HEARING SCREENING CENTER

I. FACILITY INFORMATION

Name of Facility	
Complete Address	
	No. & Street Barangay
	City / Municipality Province Region
Contact Number of Facility (must have facility not just manager or screener number)	
E-mail Address of Facility (if any)	
Name of Owner	
Name of Facility Manager	
Cellphone of Manager	
Email of Manager	
NHSRC Facility Code (if renewal)	
Classification According to	
Ownership:	[ ] Government [ ] Private
Institutional Character:	[ ] Free-standing [ ] Institution-Based

II. TECHNICAL REQUIREMENTS

Instruction to the Applicant: Please prepare all the necessary documents enumerated below.
Instruction to the Inspector: In the appropriate box, place a check mark ( ) if the facility is compliant or X mark (X) if it is not compliant.

STANDARDS AND REQUIREMENTS	COMPLIANT	REMARKS
A. PERSONNEL • A Category D Facility shall be managed by a Clinical Audiologist. • ABR and ASSR results should be interpreted by a Clinical Audiologist or PANORS member with ABR Reader Certificate given in 2013. • Confirmatory test procedure should always be under the supervision of the Clinical Audiologist/ PANORS with ABR Reader Certificate. • Category A Screener/s must be at least 19 years of age, High-school graduate and computer literate. • All personnel under Category D must comply with the minimum requirements set by the NHSRC. • Pediatric Audiometry, Hearing aid evaluation and verification test should always be under the supervision of the Clinical Audiologist. • Should have a Developmental Pediatrician, Speech Pathologist and/or occupational therapist, Otorhinolaryngologist (ENT) Implant Surgeon and Cochlear Implant Audiologist.		
1. Manager		
a. Diploma in Masters in Clinical Audiology for Clinical Audiologists		
b. A valid certificate of Category A Newborn Hearing Screening Personnel Certifying Course		
c. Company ID or Contract of Appointment/ Memorandum of Agreement as Clinical Audiologist/ Manager (for managing more than 1 facility)		
2. Audiologist and/or ABR Reader		
a. Diploma in Masters in Clinical Audiology for Clinical Audiologists OR Valid PRC ID and PANORS ABR Reader Certificate		

b. Orientation and updates of Category A Newborn Hearing Screening (RA9709)		
c. Company ID or Contract of Appointment/ Memorandum of Agreement as Clinical Audiologist/ Manager (for managing more than 1 facility)		
3. Screener (1)		
a. Valid ID (PRC license for healthcare professionals/ company ID)		
b. A valid certificate of Category A Newborn Hearing Screening Personnel Certifying Course		
Screener (2)		
a. Valid ID (PRC license for healthcare professionals/ company ID)		
b. A valid certificate of Category A Newborn Hearing Screening Personnel Certifying Course		
Screener (3)		
a. Valid ID (PRC license for healthcare professionals/ company ID)		
b. A valid certificate of Category A Newborn Hearing Screening Personnel Certifying Course		
4. ABR Technician and/or Audiometrician		
a. Valid ID (PRC license for healthcare professionals/ company ID)		
b. A valid certificate of Category A Newborn Hearing Screening Personnel Certifying Course		

c. Certificate of training (equipment: ABR and ASSR, Audiometer, Middle Ear Analyzer and Real Ear Measurement) by distributor or signed by the in-house Audiologist		
5. Otorhinolaryngologist (ENT) Coordinator (Optional)		
a. Valid PRC license		
b. Residency certificate in Otorhinolaryngology		
c. Orientation and updates of Category A Newborn Hearing Screening (RA9709)		
d. Fellowship certificate from Philippine Society of Otolaryngology Head and Neck Surgery		
5. Otorhinolaryngologist (ENT) Implant Surgeon		
a. Valid PRC license		
b. Residency certificate in Otorhinolaryngology		
c. Orientation and updates of Category A Newborn Hearing Screening (RA9709)		
d. Fellowship certificate from Philippine Society of Otolaryngology Head and Neck Surgery		
e. Implant Surgery Certificate		
6. Developmental Pediatrician		
a. Valid PRC license		

b. Residency certificate		
c. Fellowship certificate in Developmental Pediatrics		
d. Fellowship certificate from Philippine Pediatric Society		
e. Orientation and updates of Category A Newborn Hearing Screening (RA9709)		
7. Speech therapist and/or occupational therapist		
a. Diploma		
b. Orientation and updates of Category A Newborn Hearing Screening (RA9709)		
8. CI Audiologist (Telemetry and mapping)		
a. Masters in Audiology Diploma		
b. Orientation and updates of Category A Newborn Hearing Screening (RA9709)		
c. Certificate of training in telemetry and mapping from implant distributor/s		
B. EQUIPMENTS		
Hearing Screening Equipment 1 **Type:** [ ] Otoacoustic Emission (OAE) [ ] Automated Auditory Brainstem Response (AABR)		
a. Brand / Model:		
b. Serial Number:		
c. Annual calibration certificate		

Hearing Screening Equipment 2 **Type:** [ ] Otoacoustic Emission (OAE) [ ] Automated Auditory Brainstem Response (AABR)		
a. Brand / Model:		
b. Serial Number:		
c. Annual calibration certificate		
Confirmatory Test Type: [ ] Auditory Brainstem Response (ABR) [ ] Auditory Steady State Response (ASSR)		
a. Brand / Model:		
b. Serial Number:		
c. Annual calibration certificate		
d. For ABR: Specs if capable of frequency specific		
3. **Tympanometer/ Middle Ear Analyzer**		
a. Brand / Model:		
b. Serial Number:		
c. Annual calibration certificate		
4. **Diagnostic or Clinical Audiometer**		
a. Brand / Model:		
b. Serial Number:		
c. Annual calibration certificate		
5. Operating Microscope (CI Surgery)		
a. Brand/ Model		

b. Specs or user manual		
6. Surgical Equipment		
a. Micro drill		
b. Mastoid set		
C. PHYSICAL FACILITY Every hearing screening facility shall have a physical facility with adequate areas in order to safely, effectively and efficiently provide hearing screening, diagnostic, behavioral test and intervention services to the newborns.		
a. **OAE/ AABR Room-** Sufficient space for 1 chair or bassinet and a table enough to carry hearing screening equipment, laptop/desktop and printer. (Ambient noise should not be more than 50 dBA) b. **ABR, ASSR Room-** Sufficient space for 1 bed and a table enough to carry hearing diagnostic equipment, laptop/desktop, printer and other materials for skin preparation. c. **For Behavioral Test using Diagnostic Audiometer-** Sound treated booth, toys and reinforcers. **d. Operating Room**		
D. OPERATIONS		
a. Refusal Form		
b. Educational material / brochure		
c. Records of newborns screened		
d. Monthly report submitted to NHSRC		

III. DEMONSTRATION

Instruction to the applicant: The following item should be demonstrated in the video recording.
Instruction to the Inspector: In the appropriate box, place a check mark ( ) if the facility is compliant or X mark (X) if it is not compliant.

ITEM	Place a check mark ( ) if the facility is compliant or X mark (X) if it is not compliant.	EVALUATOR'S COMMENT (IF NON-COMPLIANT) (REASON FOR NOT EARNING SCORE)
INTRODUCTION a. Name b. Position c. Name of facility **Camera View: Face the camera, remove facemask and introduce yourself and the facility.**		
ROOM MEASUREMENT		
a. **OAE/AABR Room-** Sufficient space for 1 chair or bassinet and a table enough to carry hearing screening equipment, laptop/desktop and printer. b. **ABR, ASSR Room-** Sufficient space for 1 bed and a table enough to carry hearing diagnostic equipment, laptop/desktop, printer and other materials for skin		

preparation. c. **For Behavioral Test using Diagnostic Audiometer-** Sound treated booth, toys and reinforcers. **Camera View: Show actual room with complete equipment.**		
AMBIENT NOISE		
a. Should not be more than 50 dBA for OAE/AABR b. Sound treated booth **Camera View: Show actual sound level meter while measuring the ambient noise of the room.**		
DEVICE CHECK		
ABR TEST PARAMETERS **Camera View: Show actual parameters in a clear view and test a sample patient to check if the machine is working properly.** **NOTE: Equipment is capable for Bone ABR and frequency specific testing.**		
a. Subject state *TICK: NATURAL SLEEP or under sedation* b. Transducer *TICK: Inserts, bone conductor and headphone* c. Electrode		

montage (as required by machine and/or NHSRC) d. Channels (1 or 2 channels) e. Time window: (0-20ms) f. Number of sweeps : 2,000 sweeps g. Stimulus (click and toneburst minimum requirement) h. Stimulus Intensity (at least up to 90dB) i. Stimulus frequency (frequency specific ABR using toneburst, 500. 1k, 2k, 4k) j. Stimulus rate: (23 to 39.1sec) k. Stimulus Polarity: *TICK* *condensation *rarefraction *alternating l. Grounding m. Impedance Check		
ASSR PARAMETERS **Camera View: Show actual parameters in a clear view and test a sample patient to check if the machine is working properly.**		
GROUNDING AND IMPEDANCE (test must be perform		

for the evaluators to see if enough grounding and impendance are met; 5 and below) Artifacts rate must be less than 10% of the recorded response rate.		
Tympanometer/Middle ear analyzer **Camera View: Show actual parameters in a clear view and test a sample patient to check if the machine is working properly.**		
Hearing aid fitting equipment		
a. Hearing aid model/brand (Submit a PDF file copy of specs of the hearing aid model) b. Laptop and/or computer with installed software for hearing aid adjustment c. Programming cable d. Hearing aid batteries e. Ear Impression material kit f. Hearing aid trial fitting kit g. Others (such as Hearing aid		

accessories) **Camera View: Show actual hearing aid trial and fitting room with equipment (as mentioned above).**		
Real Ear Measurement (REM)		
REM machine check if it is in good working condition. **Camera View: Show actual parameters in a clear view and test to check if the machine is working properly.**		
OPERATING EQUIPMENT		
1. Operating microscope for otologic surgery 2. Microdrill with angled handpiece for 70 mm burrs 3. Basic mastoid set **Camera View: Submit actual video of equipment.**		
RESULT TEMPLATE: □ OAE/ AABR □ ABR/ ASSR Diagnostic (Series of results at least 5 most		

recent) - Tympanometer / Middle Ear Analyzer - Play audiometry official result - Behavioral Test (VROA, etc) official result - REM official result **Submit the following in PDF forms.**		
OTHER REQUIREMENTS: a. Otoscope b. Skin preparation solution c. Gauze, cotton, alcohol d. PPE **Camera View: Show actual materials**		

MONITORING AND VALIDATION OF INFORMATION

- I hereby confirm that the information provided by me is true and correct. By signing below I acknowledge that the inspectors assigned to our facility can check and verify the information I have given.

_____
Printed Name and Signature

As part of monitoring:

Category D centers are expected to share with NHSRC their regular scheduled meetings (at least quarterly schedule meeting) , to be attended by NHSRC inspector/ representative and /or minutes of the meeting.

Agenda: to check or present census, monitoring of patient, status or progress of program, etc.

Inspected by:

Printed Name	Signature	Position / Designation / Office

Received by:

Signature _____
Printed Name _____
Position/Designation _____
Date _____

NEWBORN HEARING SCREENING PERSONNEL CERTIFICATION COURSE AND INTEGRATED ORIENTATION AND UPDATES TO RA 9709

I. RATIONALE

The Newborn Hearing Screening Personnel Certification Course is composed of three components: the Orientation and Updates to RA 9709, a written assessment, and a practical examination. The Newborn Hearing Screening Personnel Certification Course is the basic course for all **managers and screeners** of Newborn Hearing Screening Centers (Categories A to D). It is required that they pass the course before they become qualified to do hearing screening using otoacoustic emissions (OAE) and/or automated auditory brainstem response (AABR). The participants shall attend the Orientation and Updates to RA 9709 course lectures then take a 30-item online exam. Finally, they shall demonstrate their skills through a practical exam using their own OAE and/or AABR devices. This aims to ensure standardized training among newborn hearing screening personnel.

All other personnel involved in the diagnostic and intervention services of Newborn Hearing Screening Centers (Categories B to D) are required to complete the Orientation and Updates to RA 9709 only. These personnel may include audiologists, midwives, nurses, general physicians, otorhinolaryngologists, implantable hearing device surgeons, speech pathologists, and pediatricians involved in the management of an infant and/or a child with hearing impairment. The lecture series provides a comprehensive overview of the newborn hearing screening program focused on local stakeholders. Participants shall receive a Certificate of Attendance.

II. LEARNING OBJECTIVES

GENERAL LEARNING OBJECTIVES

At the end of the course, participants shall be able to perform the responsibilities of a newborn hearing screening personnel or manager in accordance with the manual of operations of RA 9709, otherwise known as the Newborn Hearing Screening and Intervention Act of 2009.

LEARNING OBJECTIVES FOR CERTIFICATION COURSE

1. To describe the history and updates in the implementation of the RA 9709.
2. To identify the available confirmatory hearing diagnostic tests in the region and the entire country.

3. To identify the available interventions and support systems in the region and the entire country.
4. To adapt the Universal Newborn Hearing Screening Program stop criteria in the use of otoacoustic emissions device (OAE) or automated auditory brainstem response (AABR) in newborns.
5. To explain to parents or guardians the newborn hearing screening results, the steps needed for early diagnosis, intervention, and its importance in the context of the universal newborn hearing screening and intervention act.
6. To demonstrate proper documentation of newborn hearing screening results using the format and platform provided by the Newborn Hearing Screening Reference Center.
7. To describe the process of PhilHealth claims reimbursement for Newborn Hearing Screening

III. Methodology

The Category A Newborn Hearing Screening Personnel Certification Course is composed of three components: the Orientation and Updates to RA 9709, a written assessment, and practical examination. Screeners and managers of Newborn Hearing Screening Centers (Categories A-D) should successfully complete all three components. All other personnel involved in the diagnostic and intervention services of Newborn Hearing Screening Centers (Categories B to D) are required to complete the Orientation and Updates to RA 9709 only.

The Orientation and Updates to RA 9709 utilizes asynchronous learning on an online learning management system for its online implementation. Its face-to-face implementation may use live remote, in-person, or pre-recorded learning sessions and conferences in adherence to safety precautions. Facilitation techniques include written and practical examinations with interactive discussion.

The Orientation and Updates to RA 9709 is the lecture portion of the Newborn Hearing Screening Personnel Certification Course and is also a prerequisite for non-screener or manager staff members of Hearing Centers such as Speech Therapists, Cochlear Implant Programmers, Developmental Pediatricians, ENT Coordinators, and ENT Implant Surgeons.

Orientation and Updates participants are required to upload the following:

1. Copy of valid PRC ID for physicians
2. Copy of any valid ID for Audiologist or speech therapist
3. Copy of Master in Audiology diploma for Audiologist
4. Copy of Speech Therapy / Pathology diploma for speech therapist
5. Copy of Residency and Fellowship Training certificates for Developmental Pediatricians, ENT or ENT Implant Surgeon
6. Certificate of good standing from The Philippine Society of Otolaryngology Head and Neck Surgery for ENT Coordinators and ENT Implant Surgeons

7. Certificate of good standing from the Philippine Pediatric Society for Pediatricians
8. Certificate or letter of center / health facility affiliation / employment signed by Medical Director / head of facility / owner. Exact address and complete contact information of the health facility must be indicated in the certificate or letter.

The ***screeners and managers*** of Newborn Hearing Centers (Categories A to D) shall have to pass a written 30- item multiple choice, open notes examination and practical examination with a 23-point rubric for OAE screening, and 20-point rubric for AABR. Examinees are required to bring the hearing screening device (OAE or AABR) they are using or a demo unit from the distributor of the exact model being used in their facility for the practical examination. The device must be fully charged before the course.

Screeners and managers are required to submit the following:
1. Copy of valid ID indicating date of birth
2. Certificate / letter of affiliation / employment or copy of BIR Certificate of Registration if owner / physician
3. Accomplished Registration Form
4. Proof of registration fee payment

Screener and manager certification is renewed every three years in which they must attend the Orientation and Updates to RA 9709 in order to be recertified.

Screeners and managers for renewal are required to submit the following:
1. Copy of valid ID indicating date of birth
2. Certificate / letter of affiliation / employment or copy of BIR Certificate of Registration if owner / physician
3. Accomplished Registration Form
4. Proof of registration fee payment

IV. Course Coverage

Lecture Title	Content	Learning Objective	Teaching Strategies	Assessment Methods	Learning Resources
Introduction to RA 9709	a. Introduction to Newborn Hearing Screening	LO 1: To describe the history and updates on	Lecture Discussion	Written examination	Face to Face Implementation:

(15 mins)	b. Rationale of RA 9709 c. Categories of Newborn Hearing Screening Centers d. Requirements for Newborn Hearing Screening Centers	the implementation of RA 9709.			Live/Recorded lecture Examination Sheet Ballpen Online Implementation: Recorded lecture Laptop Internet connection
Hearing Tests for Infants (30 mins)	a. Prevalence of hearing loss in newborns b. Importance of Hearing Screening i. Roles of each center category c. Methods for Newborn Hearing Screening i. Otoacoustic Emission ii. Automated Acoustic Brainstem Response d. Stop Criteria e. Methods of Confirmatory Hearing Assessment	LO 2: To identify the available confirmatory hearing diagnostic tests in the region and the entire country. LO 4:To adapt the Universal Newborn Hearing Screening Program stop criteria in the use of otoacoustic emissions device (OAE) or automated auditory brainstem response (AABR) in newborns.	Lecture Demonstration Discussion	Written examination Practical examination	Face to Face Implementation: Live/Recorded lecture Examination Sheet Ballpen Online Implementation: Recorded lecture Laptop Internet connection Hearing screening device Video recorder
Interventions for Infants and Children with Hearing	a. Importance of early intervention b. Members of Intervention Team c. Audiological Intervention i. Listening Devices 1. Hearing Aids	LO 3: To identify the available interventions and support systems in the region and the entire country.	Lecture Discussion Summary Questions	Written examination Practical examination	Face to Face Implementation: Live/Recorded lecture Examination Sheet Ballpen

Loss (30 mins)	2. Implantable Hearing Devices d. Speech and Language Intervention 1. Auditory Verbal 2. Auditory Oral 3. Visual Communication 4. Total Communication 5. Alternative and Augmentative Communication				Online Implementation: Recorded lecture Laptop Internet connection Video recorder
Counselling in Newborn Hearing Screening (15 mins)	a. Components of Informational Counselling i. Addressing the patient ii. Review of procedure iii. Implications of result iv. Call to Action v. Frequently Asked Questions b. Hallmarks of Good Informational Counselling i. Tone of voice ii. Empathic Listening iii. Encouragement c. Phrases to Avoid	LO 5: To explain to parents or guardians the newborn hearing screening results, the steps needed for early diagnosis, intervention, and its importance in the context of the universal newborn hearing screening and intervention act.	Lecture Discussion Demonstration	Practical examination	Face to Face Implementation: Live/Recorded lecture Examination Sheet Ballpen Newborn Hearing Screening Leaflets for Parents Online Implementation: Recorded lecture Laptop Internet connection Video recorder Screening Leaflets for Parents
Reporting and Registry (15 mins)	Part I a. Rationale of good clinical documentation	LO 6: To demonstrate proper documentation of newborn hearing	Lecture Discussion Case Study	Written examination Practical	Face to Face Implementation: Live/Recorded lecture

	b. Introduction of Newborn Hearing Screening Seal (parts, characteristics, use) c. Overview to ENNHSR (login page, home page, patient registration, navigation) Part II d. Modules of ENNHSR i. Roles and privileges ii. Input per role (How to register, how to enter results, transferring patients Cat-A to Cat-B) iii. Report Generation Part III e. Offline mode of ENNHSR i. Features ii. Asynchronous sync iii. Supply of seals	screening results using the format and platform provided by the Newborn Hearing Screening Reference Center.		examination	Examination Sheet Sample registry card Ballpen Online Implementation: Recorded lecture Laptop Internet connection Video recorder Sample registry card Ballpen Smart phone
Philhealth and Updates (15 mins)	a. Patient Eligibility for availing Newborn Hearing Screening under PhilHealth b. Omitting Newborn Hearing Screening from the Newborn Package c. Requirements for PhilHealth claims for Newborn Hearing Screening d. PhilHealth Procedures during Fortuitous Events	LO 7: To describe the process of PhilHealth claims reimbursement for Newborn Hearing Screening.	Lecture Discussion	Written examination	Face to Face Implementation: Live/Recorded lecture Examination Sheet Ballpen Online Implementation: Recorded lecture Laptop Internet connection

	e. Reader's fee for OAE or AABR f. PhilHealth benefits for confirmatory testing and intervention g. Overview of the Z-package for hearing impaired children h. Eligibility to Z-package for children with hearing impairment				
Local Experience (15 mins)	a. Summary of role of screeners b. Prevalence of hearing loss in the Philippines c. Estimated cases of hearing loss in the regions d. Nationwide Distribution of Accredited Centers e. Distribution of Category A, B, C, and D centers in the regions	LO 2: To identify the available confirmatory hearing diagnostic tests in the region and the entire country. LO 3: To identify the available interventions and support systems in the region and the entire country.	Lecture Discussion	Practical examination	Face to Face Implementation: Live/Recorded lecture Examination Sheet Ballpen Online Implementation: Recorded lecture Laptop Internet connection Video recorder

Appendix J. Device Certification Checklist

DEVICE CERTIFICATION CHECKLIST

Device Name: _____ Distributor: _____
Model No: _____ Serial No: _____
Date of Evaluation (MM/DD/YY): _____

	PARAMETER	REMARKS
	1. Must have Philippine FDA product registration and license to operate Do not proceed with device certification if this criteria is not met	
	2. Length of time to finish the test OAE- 10 minutes (maximum 5 mins/ear) AABR – 40 minutes (maximum 20 minutes/ear including prep time).	
	3. Protected microphone and easy to clean tip (with asepsis, anti-sepsis protocol)	
	4. Large LCD screen which displays the following in English ( ) Patient name ( ) Date of test ( ) Time of test ( ) Test results	
	5. Able to connect to printer with print out indicating the following: ( ) PASS or REFER result clearly stated ( ) Date ( ) Time (minutes and seconds)	
	6. Operates on AC power (220v) or battery	
	7. Internal memory for at least 10 entries / patients	
	8. Available set of ear tips in different sizes (neonates to pediatric) if applicable	
	9. Portable with easy to hold handle	
	10. Provided with carrying case for machine and all accessories	
	11. Complied with US FDA or UK standards	
	12. Acceptable calibration protocol in place	
	13. Peer reviewed published evidence of machine's successful use in neonates.	
	14. Warranty of at least three (3) years with readily available parts in the Philippines	

Signature of Evaluator: _____
Printed Name of Evaluator: _____
Mailing Address: _____
Contact No.: _____
Email: _____

Appendix K. Refusal Form (English)

NEWBORN HEARING SCREENING
REFUSAL FORM
(English)

Date: _____

Facility:_____

Republic Act 9709 also known as the "***Universal Newborn Hearing Screening and Intervention Act of 2009***" is a comprehensive national program to ensure that every newborn in the Philippines shall be given access to Otoacoustic Emissions or Automated Auditory Brainstem Response screening examination prior to hospital discharge or at the earliest feasible time. An infant born with hearing impairment does not show obvious symptoms. Hearing is important so that a child shall be able to speak. A child who grows up deaf shall have difficulty in speaking and learning.
The screener in this facility informed the undersigned of newborn hearing screening, its procedure, its benefits, its availability in this facility and the consequences of undiagnosed deafness in infants.

As parent/guardian of_____, I refuse to have newborn hearing screening done for the following reason/s:

_____

_____

I declare with full knowledge and competence that this institution and the health workers therein shall be free from all liabilities under the law because this refusal for newborn hearing screening is of my decision.

I understand that a copy of this refusal form shall be part of the permanent medical records of my child/ward and shall be part of a national registry/database of the Newborn Hearing Screening Reference Center.

Witnesses:

_____
_____

Signature over Printed Name of Parent/Guardian	Signature over Printed Name of Screener

Appendix L. Refusal Form (Filipino)

NEWBORN HEARING SCREENING
PAGTANGGI SA SERBISYO
(Filipino)

Petsa: _____

Pasilidad:_____

Ang Republic Act 9709, kilala bilang "***Universal Newborn Hearing Screening and Intervention Act of 2009***" ay isang komprehensibong programang pambansa na sinisiguro na bawat sanggol na ipinanganak sa Pilipinas ay mabibigyan ng pagkakataon na masuri ang pandinig gamit ang Otoacoustic Emissions o Automated Auditory Brainstem Response bago umuwi sa bahay o sa lalong madaling panahon. Ang sanggol na ipinanganak na may kapansanan sa pandinig ay walang sintomas kaya't hindi agad nasusuri. Ang pandinig ay mahalaga para makapagsalita ang bata. Ang batang lumaking bingi ay mahihirapan sa pakikipagusap at pag-aaral.

Ang screener sa pasilidad na ito ay nagbigay ng sapat na impormasyon tungkol sa pagsusuri sa pandinig ng sanggol, kung papaano ito ginagawa, mga benepisyo nito, na ang serbisyong ito ay binibigay ng pasilidad na ito at ang maaaring mangyari kapag hindi malaman agad ang pagkabingi sa sanggol.

Ako na magulang o tagapagalaga ni _____, ay hindi pumapayag na gawin ang newborn hearing screening dahil sa:

_____
___

_____
___

Pinaninindigan ko ang aking desisyon at nalalaman ko na ang institusyon na ito at ang mga manggagawa dito ay walang pananagutan ayon sa batas dahil ang pagtanggi ko sa newborn hearing screening para sa aking anak o alaga. Ito ay tanging decision ko lamang.

Nalalaman ko na ang kopya ng pagtanggi na ito ay malalagay sa permanenteng medical record ng aking anak o alaga at ito ay magiging bahagi din ng registry/database ng Newborn Hearing Screening Reference Center.

Mga Saksi:

_____
_____

Lagda sa ibabaw ng Pangalan ng Magulang o Tagapagalaga	Lagda sa ibabaw ng Pangalan ng Screener

Appendix M. Risk Indicators Associated With Permanent Congenital, Delayed-Onset, or Progressive Hearing Loss in Childhood

Risk Indicators Associated With Permanent Congenital, Delayed-Onset, or Progressive Hearing Loss in Childhood

(Joint Committee on Infant Hearing 2007 AAP, AAOHNS, ASHA)

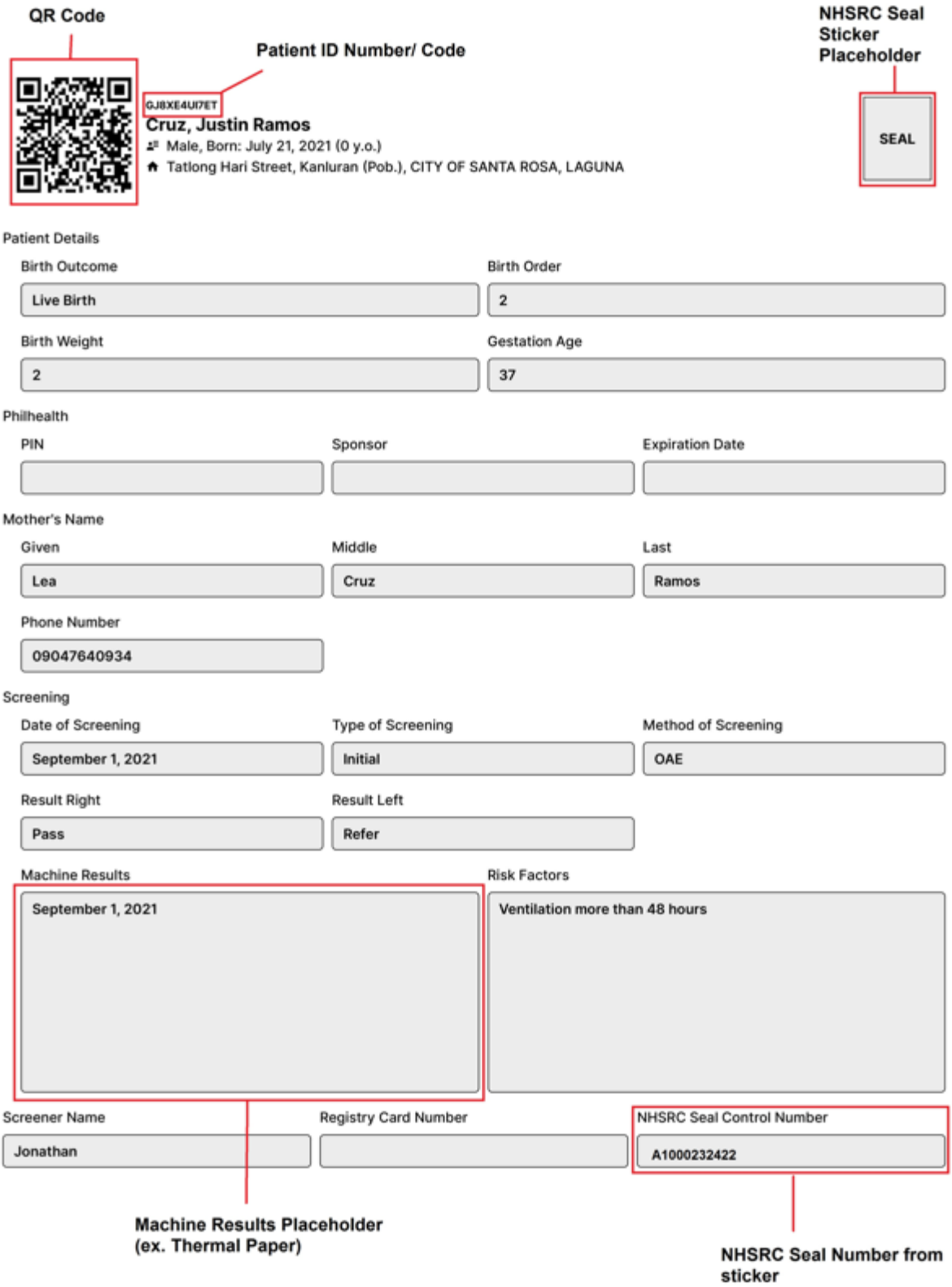
1. Caregiver concern regarding hearing, speech, language, or developmental delay.
2. Family history of permanent childhood hearing loss.
3. Neonatal intensive care of >5 days, or any of the following regardless of length of stay: ECMO, assisted ventilation, exposure to ototoxic medications (gentamycin and tobramycin) or loop diuretics (furosemide/lasix), and hyperbilirubinemia requiring exchange transfusion.
4. In-utero infections, such as CMV, herpes, rubella, syphilis, and toxoplasmosis.
5. Craniofacial anomalies, including those involving the pinna, ear canal, ear tags, ear pits, and temporal bone anomalies .
6. Physical findings, such as white forelock, associated with a syndrome known to include a sensorineural or permanent conductive hearing loss.
7. Syndromes associated with hearing loss or progressive or late-onset hearing loss, such as neurofibromatosis, osteopetrosis, and Usher syndrome Other frequently identified syndromes include Waardenburg, Alport, Pendred, and Jervell and Lange-Nielson
8. Neurodegenerative disorders,[*] such as Hunter syndrome, or sensory motor neuropathies, such as Friedreich ataxia and Charcot-Marie-Tooth syndrome.
9. Culture-positive postnatal infections associated with sensorineural hearing loss, including confirmed bacterial and viral (especially herpes viruses and varicella) meningitis.
10. Head trauma, especially basal skull/temporal bone fracture requiring hospitalization.
11. Chemotherapy

Appendix N. Speech and Language Developmental Milestones

Speech and Language Developmental Milestones

Birth to 3 months	Reacts to loud sounds with startle reflex Is soothed and quieted by soft sounds Turns head to you when you speak Is awakened by loud voices and sounds Smiles in response to voices when spoken to Seems to know your voice and quiets down if crying
3 to 6 months	looks or turns toward a new sound responds to "no" and changes in tone of voice imitates his/her own voice enjoys rattles and other toys that make sounds begins to repeat sounds (such as ooh, aah, and ba-ba) becomes scared by a loud voice or noise
6 to 10 months	Responds to his/her own name, telephone ringing, someone's voice, even when not loud Knows words for common things (cup, shoe) and sayings ("bye-bye") Makes babbling sounds, even when alone Starts to respond to requests such as "come here" Looks at things or pictures when someone talks about them
10 to 15 months	Plays with own voice, enjoying the sound and feel of it Points toward or looks at familiar objects or people when asked to do so Imitates simple words and sounds; may use a few single words meaningfully Enjoys games like peek-a-boo and pat-a-cake Follows one step commands when shown by a gesture
15 to 18 months	Follows simple directions, such as "give me the ball" without being shown Uses words he/she has learned often Uses 2 to 3 word sentences to talk about and ask for things Knows 10 to 20 words Points to some body parts when asked
18 to 24 months	Understands simple "yes-no" questions (Are you hungry?) Understands simple phrases ("in the cup," "on the table") Enjoys being read to Points to pictures when asked
24 to 36 months	Understands "not now" and "no more" Chooses things by size (big, little) Follows two step commands, such as "get your shoes and come here" Understands many action words (run, jump)

Appendix O. Sample Screening Form



Appendix P. Customer Feedback Forms

EXTERNAL PROVIDER CUSTOMER FEEDBACK FORM **DATE: ___**

EXTERNAL PROVIDER	
ADDRESS	
SERVICE CONDUCTED	
BIRTHING CENTER	

Put an "x" under the number which corresponds with your answer to the following statements. **1 is Strongly Disagree while 5 is Strongly Agree.**

	1	2	3	4	5
Memorandum of Agreement Between provider and birthing center is updated.					
External provider presents complete documentation of services to patients.					
External provider presents complete documentation of services to birthing eenter.					
Pricing is compliant with PhilHealth Price Cap Regulation.					
External Provider's personnel arrives on time.					
External Provider's personnel builds good and positive rapport with patients.					
External provider consistently and clearly communicates with birthing center.					

COMMENTS:

Evaluator Name & Signaure: _____

EXTERNAL PROVIDER CUSTOMER FEEDBACK FORM **DATE: ___**

EXTERNAL PROVIDER	
ADDRESS	
SERVICE CONDUCTED	
BIRTHING CENTER	

Put an "x" under the number which corresponds with your answer to the following statements. **1 is Strongly Disagree while 5 is Strongly Agree.**

	1	2	3	4	5
Memorandum of Agreement Between provider and birthing center is updated.					
External provider presents complete documentation of services to patients.					
External provider presents complete documentation of services to birthing eenter.					
Pricing is compliant with PhilHealth Price Cap Regulation.					
External Provider's personnel arrives on time.					
External Provider's personnel builds good and positive rapport with patients.					
External provider consistently and clearly communicates with birthing center.					

COMMENTS:

Evaluator Name & Signaure: _____

NHSC CUSTOMER FEEDBACK FORM

CLIENT NAME		***Signature:***	
ADDRESS			
SERVICE CONDUCTED		**DATE**	
SERVICE CENTER			

Isagot kung gaano ka ka sang-ayon sa mga pangungusap na nakasulat sa ibaba ng alintuntunin na ito. **Ang 1 ay katumbas ng matinding hindi pag-sang-ayon (storngly disagree), at ang 5 ay katumbas ng matinding pag sang-ayon (strongly agree.)**

	1	**2**	**3**	**4**	**5**
Kumpleto ang mga dokumento at papels na ibinigay at pina sagot sa akin.					
Agad akong nakapag-schedule ng screening sa center na ito.					
Mabilis ang pag-contact sa akin ng mga otoridad ng center.					
Malinis at maayos ang kapaligiran at mga silid ng screening center.					
Maayos at gumagana ng maigi ang mga kagamitang teknikal ng screening center.					
Makatuwiran at hindi masyadong mahal ang hinihinging bayarin para sa screening.					
Nagsimula sa takdang oras ang screening na naganap sa center.					
Mabuti at madaling makasalamuha ang mga otoridad sa screening center.					
Ipinaliwanag saakin ng kumpleto at maigi ang proses ng screening at iba pang					
Sinasagot ng kumpleto at maayos ang aking mga katanungan.					
Akma sa aking kakayahan sa buhay ang serbisyo na inirerekomenda sa samin.					
Akma sa pangagailangan namin ang serbisyong inirerekomenda sa amin.					

COMMENTS:

NHSC CUSTOMER FEEDBACK FORM

CLIENT NAME		***Signature:***	
ADDRESS			
SERVICE CONDUCTED		**DATE**	
SERVICE CENTER			

Isagot kung gaano ka ka sang-ayon sa mga pangungusap na nakasulat sa ibaba ng alintuntunin na ito. **Ang 1 ay katumbas ng matinding hindi pag-sang-ayon (storngly disagree), at ang 5 ay katumbas ng matinding pag sang-ayon (strongly agree.)**

	1	**2**	**3**	**4**	**5**
Kumpleto ang mga dokumento at papels na ibinigay at pina sagot sa akin.					
Agad akong nakapag-schedule ng screening sa center na ito.					
Mabilis ang pag-contact sa akin ng mga otoridad ng center.					
Malinis at maayos ang kapaligiran at mga silid ng screening center.					
Maayos at gumagana ng maigi ang mga kagamitang teknikal ng screening center.					
Makatuwiran at hindi masyadong mahal ang hinihinging bayarin para sa screening.					
Nagsimula sa takdang oras ang screening na naganap sa center.					
Mabuti at madaling makasalamuha ang mga otoridad sa screening center.					
Ipinaliwanag saakin ng kumpleto at maigi ang proses ng screening at iba pang					
Sinasagot ng kumpleto at maayos ang aking mga katanungan.					
Akma sa aking kakayahan sa buhay ang serbisyo na inirerekomenda sa samin.					
Akma sa pangagailangan namin ang serbisyong inirerekomenda sa amin.					

COMMENTS:

SAMPLE CORPORATION

304 3rd Floor Sample Corporate Building
Brgy. Socorro, Quezon City, NCR, 1111
VAT Reg. TIN: 005-420-050-000

CUSTOMER COMPLAINT AND ACTION FORM - INCIDENT REPORTING

CLIENT NAME			
CLIENT AFFILIATION			
ADDRESS			
SERVICE CONDUCTED			
DATE OF COMPLAINT		**CONTACT #**	

RECEIVED BY / DEPT:	
DEPARTMENT CONCERNED	

SERVICE NUMBER	

COMPLAINT SUMMARY:

SUSPECTED CAUSE

CUSTOMER DEMANDS

NHSC ACTION / RESPONSE PLAN:

DATE OF RESOLUTION	

PREPARED BY	***NOTED BY:***
Signature / Date	Signature / Date
Name	*Name*
CENTER OIC	***REGIONAL COORDINATOR***

Appendix Q. Sample Brochure (Filipino)

REPUBLIC ACT 9709

Ang lahat ng sanggol na ipinanganak sa Pilipinas ay dapat sumailalim sa HEARING SCREENING pagkasilang . . . bago magisang buwan.

KAPAG MAY SUSPETSA NA BINGI ANG BATA, HUWAG MAGATUBILI! KOMUNSULTA SA DOKTOR O MAGTANONG SA PINAKAMALAPIT NA HEARING SCREENING CENTER. HANAPIN ANG TATAK:

NEWBORN HEARING SCREENING REFERENCE CENTER

Address: Room 105B, 1st floor National Institutes of Health, University of the Philippines Manila, Pedro Gil Street, Ermita, Manila, Philippines 1000

Landline No. (02) 8569 3767

Cellphone Nos. (0917) 324 1069/ (0917) 583 9479

Email nhsrc.nih@gmail.com

Website www.newbornhearingscreening.ph

REGISTRY CARDS

Cellphone No. (0995) 867 9002

Email registrycards.nhsrc@gmail.com

CERTIFYING COURSE

Cellphone No. (0995) 558 8842

Email certifyingcourse.nhsrc@gmail.com

NHSRC

Newborn Hearing Screening Reference Center

NARINIG na ba ni baby ang "*I LOVE YOU*" mo?

BAKIT KAILANGAN IPA-HEARING SCREENING SI BABY?

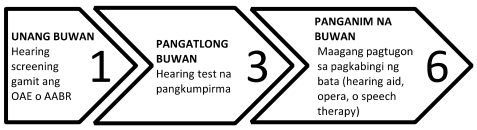
1. Ang sanggol na ipinanganak na may kapansanan sa pandinig ay walang sintomas kaya't hindi agad nasusuri.
2. Ang pandinig ay mahalaga para makapagsalita ang bata.
3. Ang batang lumaking bingi ay mahihirapan sa pakikipagusap at pag-aaral.

PAANO MALALAMAN KUNG MAY PROBLEMA SA PANDINIG SI BABY?

Ang Otoacoustic Emissions (OAE) test o Automated Auditory Brainstem Response (AABR) test ay maaaring gamitin na screening tests. Ang mga test na ito ay mabilis (5-10 minuto) at walang nalalamang dulot na pinsala sa sanggol. Kailangan lamang ay tahimik at hindi gumagalaw ang sanggol upang lapat ang ear plug ng instrumento. Ito ay ginagawa sa tahimik na kuwarto o sa kuwarto mismo ng magina isang araw matapos ipinanganak ang sanggol.

PAANO KUNG HINDI PUMASA o REFER SA HEARING SCREENING SI BABY?

Kailangan ng karagdagang pagsusuri o confirmatory hearing test upang matiyak ang tunay na sanhi kung bakit hindi pumasa sa OAE o AABR test. Hinihikayat na sundin ang schedule na ito:



PAANO KUNG PUMASA o PASS SA HEARING SCREENING SI BABY?

Hindi muna kailangan sumailalim sa confirmatory hearing test ang sanggol. Subalit, hindi nangangahulugang hindi maaaring matuklasang bingi o sadyang mabingi ang bata habang siya ay lumalaki.

Dapat pa rin subaybayan ang mga sumusunod na milestones sa paglaki ng bata:

0-3 BUWAN

- Nagugulat sa malalakas na tunog
- Tumatahimik sa mga pamilyar na boses

3-6 BUWAN

- Naghahanap ng tunog sa pamamagitan ng mata
- Nagsisimulang gumawa ng sariling tunog o "babbling"
- Paglalaro gamit ang maiingay na laruan
- Pagtugon sa pagbabago ng tono ng boses

6-12 BUWAN

- Paglingon sa pinanggagalingan ng mahinang tunog
- Paggaya sa mga naririnig na salita
- Pagtugon sa pagtawag ng pangalan
- Nakakaintindi ng mga simpleng salita gaya ng "no" o "bye-bye"

12 BUWAN PATAAS

- Malinaw na nasasabi ang "mama" o "dada"
- Pinaglalaruan ang sariling boses, kumakanta na may pakiramdam
- Pagturo at pagtingin sa pamilyar na mga bagay

Kapag may suspetsa na bingi ang bata, komunsulta agad sa doctor o pumunta sa pinakamalapit na Hearing Screening Center. Ang batang matuklasang bingi sa pagkabata ay may pagasa pang makarinig , magsalita, magaral, at mabuhay ng normal.

Appendix R. Sample Brochure (English)

REPUBLIC ACT 9709

All infants born in the Philippines are required to undergo HEARING SCREENING soon after birth . . . preferably before one month of age.

IF THERE IS ANY DOUBT ABOUT THE STATUS OF YOUR BABY'S HEARING, PLEASE DO NOT HESITATE TO CONSULT A PHYSICIAN. ACCREDITED HEARING SCREENING CENTERS MAY ALSO BE ABLE TO ASSIST YOU. LOOK FOR THIS SYMBOL:

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Did your baby HEAR you say, "*I LOVE YOU*"?

WHY DOES THE BABY NEED TO UNDERGO HEARING SCREENING?

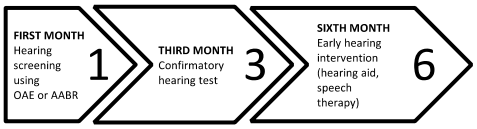
1. An infant born with hearing impairment does not show obvious symptoms.
2. Hearing is important so that the baby will be able to develop speech and language.
3. A baby who is deaf or hard-of-hearing will have difficulties in developing speech and in learning.

HOW DO WE KNOW IF THE BABY HAS A HEARING PROBLEM?

The Otoacoustic Emissions (OAE) or Automated Auditory Brainstem Response (AABR) test are tools presently being used for hearing screening. The test is not harmful, is easy to perform and is finished within a few minutes. A quiet environment and a calm/ sleeping baby are needed to be able to successfully perform the screening.

WHAT IF THE RESULT OF THE BABY'S HEARING SCREENING TEST IS A REFER?

Additional audiological tests, which we call "confirmatory" tests are needed to determine if the baby has hearing loss or not. We recommend the following schedule:



WHAT IF THE RESULT OF BABY'S HEARING SCREENING TEST IS A PASS?

Your baby's hearing is probably okay. However, we recommend that you monitor your baby's responses to sound and development of speech and language using the following milestones:

The following milestones should be noted while the child is growing-up:

0-3 MONTHS
- Startled when hearing a loud noise
- Soothed and quieted when hearing familiar voices or soft sounds

3-6 MONTHS
- Looks or turns toward sound
- Begins to repeat sounds or "babbling"
- Enjoys playing rattles and toys that make sounds
- Responds to changes in tone of voice

6-12 MONTHS
- Responds to sounds even when not loud
- Imitates simple words and sounds
- Responds to name calling
- Knows common words or things such as "bye-bye"

12 MONTHS AND ABOVE
- Can clearly say "mama" and "papa"
- Plays with own voice, enjoys sounds and feels it
- Point toward or looks at familiar objects

If there is any doubt regarding the status of the baby's hearing, consult your physician immediately. An accredited hearing screening center may be able to help you. Early diagnosis and intervention is important so that the baby will develop speech and language properly.