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**U. S. Public Health Service**

**Handbook to the**  
***Therapist Category***

**Contributions and Capabilities**  
**During Disaster Response**

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U.S. Public Health Service  
Therapist Professional Advisory Committee  
(TPAC)

## Disclaimer

This document provides guidance on the Therapist Professional Advisory Committee's (TPAC) current views on USPHS Therapists' actual and potential deployment roles in disaster situations. Strategies may vary as the situation changes. TPAC will review this handbook periodically and modify its content according to updated information and feedback.

**\*\*\*Pending approval of Respiratory Therapy to the USPHS Therapist Category, specific information related to this discipline will be incorporated into this document.\*\*\***

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## Introduction

Disaster response requires a broad range of clinical and non-clinical skills to efficiently and effectively meet the needs of each unique situation. USPHS Therapist Category Officers (Therapists) are prepared to meet these needs and committed to serving in times of disaster and national emergency. This Handbook is designed as a tool to facilitate decisions related to deployment of Therapist Officers in disaster and emergency situations. It describes general medical/clinical and non-medical knowledge and skills held by all Therapists who may be deployed in such situations, as well as specific skills for each professional discipline.

## Overview of Capabilities

The Therapist Category is multi-disciplinary and comprised of licensed, highly skilled officers credentialed in four allied health professions: **Physical Therapy, Occupational Therapy, Speech Language Pathology, and Audiology**. Officers in the Therapist Category promote world-wide health during peace and national emergencies through direct clinical care, active outcome-based research, implementation of programs related to balanced community health systems, a global approach to health promotion and disease prevention, and initiatives designed to eliminate disparities in health care.

Therapists are qualified to (clinical skills):

- Provide accurate and timely clinical evaluation and treatment for patients with various health conditions related to their specialty.
- Develop and implement treatment plans, educate patients, and provide medical documentation.
- Strive to restore function and alleviate human pain and suffering, even with minimal resources that may exist in disasters.
- Supervise health technicians/assistants and co-sign their documentation.
- Perform supportive medical and administrative responsibilities.
- Provide care in various environments, conditions and populations. (Intensive care units, pre, during and post surgery)
- Serve as independent practitioners or as physician/medical extenders/assistants.
- Work with people throughout the life span including neonates, children & adolescents, adults, and geriatrics.

Therapists are skilled in:

- Problem solving
- Communication
- Clinical and health care services
- Working with people with disabilities, functional limitations, and special needs.
- Designing adaptations to aid in function

- Research, data collection and analysis
- Technical and computer skills
- Disease & injury prevention & health promotion.

All Therapists are professionally credentialed. They hold baccalaureate, master's or doctoral level training from accredited schools. All Therapists must complete clinical internships under the direct supervision of a practicing clinician.

In addition to basic professional clinical training, individual therapists may also earn board certification in specialty areas. Board certifications available for Therapists are identified in Table 2 on page 12.

## **Therapist Disaster Related Knowledge & Skills**

Therapists can make significant contributions toward effective and efficient responses to disaster and emergency situations through their extensive general and specific knowledge and skills. Current and future plans are for every Therapist who desires involvement in such situations, meet the CCRF or DMAT membership requirements including completion of the core National Disaster Medical System (NDMS) general and medical training modules (<http://ndms.umbc.edu>). Therapist are encouraged to develop and maintain skills in the following areas:

### **Clinical Skills:**

BCLS certification, First Aid, First Responder Certification (preferred), EMT Certification (preferred), Advanced Cardiac Life Support (ACLS preferred), field management of mass casualties, medical history & interviews, general medical triage, etc.

### **Other Disaster Related Skills:**

#### **Administrative Services:**

Administrative Officer duties, Information Officer duties, command structure support, staff organization, information management, and patient records management.

#### **Communications:**

Communication Officer duties, Office of Emergency Preparedness operations, basic radio operations, hardware components, telecommunication systems, Federal Emergency Management Agency (FEMA), National Disaster Management Systems (NDMS) and Department of Defense (DoD) communication frequencies, police, fire and public safety communication frequencies, preplanning, deployment, and departure issues.

#### **Information Technology & Computer Support:**

Basic computer skills in Internet and Web-based information retrieval, and use of standard computer programs.

#### **Surveillance and Epidemiologic Data Collection, Data Entry, and basic analysis:**

Knowledge of basic word processing and data management programs.

**Logistics**

Medical records, personal gear, equipment and supply management, occupational safety, dietary and food distribution issues, etc.

**Management & Security**

Basic skills in disaster management and security issues.

**Preventive Medicine:**

Professional foundations in medical science allow therapist skills to assist with preventive medicine task and services.

**Pre-deployment planning and training:**

Ergonomics and body mechanics training to prevent injury, field readiness evaluation (functional fitness evaluation) & training, field training exercises, etc.

**Table 1: Types of Clinical Problems Therapists May Address During Natural or Man-made Disasters**

Clinical Problem with:	Earth-quake	Land-slide	Volcano	Hurricane / Tsunamis / Tornado	Flood	Blizzard	Heat Wave	Drought	Fire	Nuclear Incident	Hazard Material	Transportation Accident	Industrial	Air Pollution	Terrorism	Famine	Refugee Crisis
Muscular Pathology/Injury	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT		PT, OT
Skeletal Pathology/Injury	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT		
Neurological Conditions/Injury	PT, OT, SLP	PT, OT, SLP	PT, OT, SLP	PT, OT, SLP	PT, OT, SLP	PT, OT, SLP	PT, OT, SLP	PT, OT, SLP	PT, OT, SLP	PT, OT, SLP	PT, OT, SLP	PT, OT, SLP	PT, OT, SLP	PT, OT, SLP	PT, OT, SLP	OT, SLP	PT, OT, SLP
TBI & Closed Head Injury	PT, OT, SLP, AUD	PT, OT, SLP, AUD	PT, OT, SLP, AUD	PT, OT, SLP, AUD	PT, OT, SLP, AUD	PT, OT, SLP, AUD	PT, OT, SLP, AUD	PT, OT, SLP, AUD	PT, OT, SLP, AUD	PT, OT, SLP, AUD	PT, OT, SLP, AUD	PT, OT, SLP, AUD		PT, OT, SLP, AUD			
Cardio-Pulmonary Pathology	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT
Burn & wound care	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT
Application & fabrication of splints & orthotic devises	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT

Clinical Problem with:	Earth-quake	Land-slide	Vol-cano	Hurricane/ Tsunamis/ Tornado	Flood	Blizzard	Heat Wave	Drought	Fire	Nuclear Incident	Hazard Material	Transportation Accident	Industrial	Air Pollution	Terrorism	Famine	Refugee Crisis
Ergonomics	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT
Respiration			PT, OT	PT, OT					PT, OT	PT, OT	PT, OT		PT, OT	PT, OT	PT, OT		PT, OT
Cognition	OT, SLP	OT, SLP	OT, SLP	OT, SLP	OT, SLP	OT, SLP	OT, SLP	OT, SLP	OT, SLP	OT, SLP	OT, SLP	OT, SLP	OT, SLP	OT, SLP	OT, SLP	OT, SLP	OT, SLP
Communication	SLP, OT, AUD	SLP, OT, AUD	SLP, OT, AUD	SLP, OT, AUD	SLP, OT, AUD	SLP, OT, AUD	SLP, OT, AUD	SLP, OT, AUD	SLP, OT, AUD	SLP, OT, AUD	SLP, OT, AUD	SLP, OT, AUD	SLP, OT, AUD	SLP, OT, AUD	SLP, OT, AUD	SLP, OT, AUD	SLP, OT, AUD
Psycho-social/Emotional	OT	OT	OT	OT	OT	OT	OT	OT	OT	OT	OT	OT	OT	OT	OT	OT	OT
Stress/Time Management	OT	OT	OT	OT	OT	OT	OT	OT	OT	OT	OT	OT	OT	OT	OT	OT	OT
Hearing pathologies & injury	AUD	AUD	AUD	AUD	AUD	AUD			AUD	AUD		AUD	AUD		AUD		AUD
Order select radiologic or lab tests	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT
Pain Management	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT	PT, OT

## Therapist Discipline Overviews

For each Therapist Category professional discipline, a definition of and summary of USPHS credentialing requirements are provided. All USPHS Therapists are registered and licenced.

### **Physical Therapists:**

**Definition:** Direct Physical Therapy intervention includes evaluations and treatments that occur to and for the patient at the bedside, ward, or disaster area under the direct supervision of a Physical Therapist. Indirect Physical Therapy intervention includes treatments for programs that are performed by the patient or other health care providers under the direction of the Physical Therapist, but not in the presence of Physical Therapy personnel. For example exercise programs, positioning programs, and ambulation programs.

Physical Therapists evaluate, plan, supervise, implement treatment regimes to correct, prevent, or retard physical impairments disabilities resulting from injury, disease, or pre-existing bio-mechanical problems.

Physical Therapists can serve as independent practitioners and physician extenders in accordance with agency guidelines and regulations. The Physical Therapist performs a primary patient assessment of the neuromusculoskeletal system evaluating for impairments and disabilities, and may also order appropriate radiologic or lab tests. Prescription of non-narcotic medication is included in the scope of practice for credentialed providers. The initiation of Physical Therapy is dependent upon the referral from a physician, physiatrist, physicians assistant, and nurse practitioner. The patient's current medical condition, extent of injuries, and varying prognoses would also contribute to the initiation of treatment.

Physical Therapists can impact positively upon a broad array of medical and surgical conditions, although Physical Therapy is most beneficial in the early assessment and treatment of patients with orthopaedic, neuro-surgical and cardio-vascular, integumentary (wound/care) impairments and disabilities.

**Credentialing:** USPHS Physical Therapists are credentialed at the professional level after completing a Baccalaureate, Master's, or Doctoral level degree from a program accredited by the American Physical Therapy Association (APTA). Physical Therapists must also complete a supervised clinical internship and pass a national licensing examination. All USPHS Physical Therapists are licensed in one of the United States as per PHS statute.

**USPHS Recognized P.T. Board Certification:** Orthopedics, Electro-physiology, Pediatrics, Sports Medicine, Cardiology, Geriatrics, and Neurology.

## **Occupational Therapists:**

**Definition:** Occupational Therapists are health and rehabilitation professionals who evaluate, plan, supervise and implement treatment regimes in order for people to develop, regain, and build skills that are important for independent functioning, health, well-being, security, and happiness. Occupational Therapists work with people of all ages who because of illness, injury or developmental or psychological impairment. Patients who benefit from Occupational Therapy intervention may require specialized assistance to enable them to lead independent, productive, and satisfying lives. USPHS Occupational Therapists may practice as independent practitioners.

In times of emergency and disaster, people of all ages and functional levels are likely to experience physical and/or emotional injury and trauma, stress and disruption of their daily routines. Occupational therapists have training in and knowledge of the following body systems; including muscular, skeletal, neurological, circulatory, skin integrity, and others. They incorporate a special emphasis on the physiological, social, emotional, psychological and environmental effects of illness, injury and the environment on human functioning. Occupational Therapists may acquire specialized training and experience in neuro-rehabilitation, pediatrics, geriatrics, hand therapy, orthopedics, wound care, mental health, etc.

In addition to addressing physiological conditions, Occupational Therapists have the training and expertise to assist community members and emergency disaster workers to cope and positively adapt to challenging situations. The Therapist can immediately assist families, children, workers, and the disabled learn and practice immediate / long-term strategies to reduce injury, disease, stress. While learning to maintain and promote independent functioning. They may also assist with critical incident debriefing and support.

**Credentialing:** USPHS Occupational Therapists are credentialed at the professional level after completing a Baccalaureate, Master's, or Doctoral level degree from an academic program accredited by the American Occupational Therapy Association (AOTA). Occupational Therapists also complete a supervised clinical internship and pass a national certification examination. All USPHS Occupational Therapists are licensed in one of the United States as per PHS statute.

**USPHS Recognized O.T. Board Certifications:** Certified Hand Therapy (CHT), Pediatrics, Neuro-Developmental Techniques (NDT).

## **Speech Language Pathologists:**

**Definition:** Speech and Language Pathologists are professionals that are board certified and clinically trained to diagnose / treat speech, language, cognitive, and swallowing disorders associated with traumatic head injury, stroke, cancer, poisoning, and altered mental status (psychiatric). Patients requiring temporary oral prosthetics to avoid aspiration are also diagnosed and treated. The Speech and Language Pathologist (SLP) works collaboratively with other rehabilitation and medical health professionals (physicians, nurses, neuropsychologists, physical and occupational therapists, and social workers), military officials, and families to provide a comprehensive evaluation and treatment plan for the patient with a communication, swallowing or neuro-processing diagnosis.

**Credentialing:** Individuals who have successfully completed an intensive educational curriculum (approved by the American Speech Language Hearing Association (ASHA) leading to a Master's Degree or Ph.D. in Speech Language Pathology) would have completed and obtained the Certificate of Clinical Competency (CCC) granted by ASHA. The individual would also meet the requirements for a current unrestricted license to practice in a State within the profession of Speech Language Pathology.

The Speech and Language Pathologist holds a board certification in Speech Pathology, and has completed and extensive field of study which includes but is not limited to undergraduate and graduate level course work from an accredited university. The SLP must have completed the national comprehensive licensing board certification examination in addition to an internship under the direction and supervision of a board certified clinician. The SLP Therapists are licensed with an individual state or states to practice clinically as written within that state of license and scope of practice.

**USPHS Recognized SLP Board Certifications:** Certificate of Clinical Competency (CCC).

### **Audiologist:**

**Definition:** Audiologists are Health Care Professionals who identify, assess, and manage disorders of the auditory, vestibular, and other neural systems. They provide audiological (aural) rehabilitation to children and adults across the entire life span and also select, fit and dispense amplification systems such as hearing aids and related devices. Audiologists prevent hearing loss through provision of and fitting of hearing protective devices, consultation on the effects of noise on hearing, and consumer education. Audiologists are involved in auditory and related research pertinent to the prevention, identification and management of hearing loss, tinnitus, and balance system dysfunction. Audiologists serve as expert witnesses in litigation related to their areas of expertise.

Audiologists are autonomous professionals and an integral part of America's Hearing Health Care Team. They collaborate with Otolaryngologists and other members of the hearing healthcare team to provide the most efficient access to children and adults with hearing and balance disorders. Audiologists may practice independently to identify, assess and manage disorders of the hearing and balance systems.

**Credentialing:** The American Speech — Language and Hearing Association awards a Certificate of Clinical Competency in Audiology. ASHA Certified audiologists use the designator, "CCC-A" after their degree. The ASHA CCC-A indicates this audiologist has met the highest level of preparation for audiology service

delivery. These National requirements include an Academic Degree (from an accredited university), completing graduate level practicum, completing a post graduate supervised clinical fellowship, and passing a national standardized examination in audiology.

In all states except Idaho, Michigan, and Vermont, audiologists are licensed, registered or certified by the state in which they practice. Each state ,however has its own specific requirements. Thus, audiologists may hold two credentials: the nationally accepted ASHA CCC-A and the license in the state in which they practice.

**USPHS Recognized Audiology Board Certifications:** Certificate of Clinical Competency - Audiology.

**Table 2: Advanced specialties within Therapists clinical practice.**

Clinical Specialty Area	Physical Therapists	Occupational Therapists	Speech Language Pathologists	Audiologist
Geriatrics	X	X	X	X
Cancer				
Pediatrics	X	X	X	X
Neurology/Neuro-rehabilitation	X	X	X	X
Wound/Burn Care	X	X	X	
Traumatic Brain Injury			X	X
Dementia				
Alzheimer’s Disease				
Hand Therapy	X	X		
Multilingual Language Dx			X	X
Research				X
Graduate Education				
Health Education	X	X	X	X
Cardiovascular and Pulmonary	X		X	
Sports Medicine PT / OT	X	X		

Clinical Electro-physiology	X			X
Orthopaedics	X			
Hearing Conservation				X
Modified Barium Swallows			X	

**Table 3: List of pre-disaster services and skills offered by Therapists.**

Services offered	Physical Therapists	Occupational Therapists	Speech/ Language Pathologists	Audiologists
Injury Prevention	X	X	X	X
Health Promotion	X	X	X	X
Patient Education	X	X	X	X
Public Education	X	X	X	X
Medical/Health Care Provider Education	X	X	X	X
Ergonomics/ Environmental Modification & Adaptation	X	X		
Stress/Time Management		X		
Hearing conservation				X

# **Discipline Specific Disaster Related Roles & Responsibilities**

## **Speech Language Pathology Disaster Related Roles & Scope of Practice**

### **PRACTICE OF SPEECH LANGUAGE PATHOLOGY**

Direct speech therapy involves the following components:

- ! Medical records and history review.
- ! Complete evaluation and clinical assessment which includes:
  - ! A look at the strength and movement of the muscles involved in swallowing and speaking.
  - ! Observation of feeding to assure that no aspiration will occur.
  - ! Conduct special diagnostic test such as the FEES, Videofloutoscopic, Ultra Sound, and Prosthetic fitting.
- ! Diagnosis of the disorder.
- ! Treatment plan creation for rehabilitation of the disorder.
- ! Treatment plans include exercises for the oral cavity and musculature that redirect strength position and excursionary movements to produce more intelligible speech and a more effective swallow.
- ! Implementation of direct individual or group therapy.
- ! Individual therapy may focus on improving language skills as needed. For example if weak musculature is noted which would impair speaking and swallowing.
- ! Indirect therapy can be performed under the direct of the SLP-Assistant when they are directly supervised by a board certified Speech Pathologist. An example of which would be feeding programs and Bobath-Coma Sensory Stimulation therapy.

The Speech and Language Pathologist works in conjunction with the other members of the health care team to insure that each patient is able to comprehend, listen, speak and read all presented information. The following disorders are a few where a SLAP can be instrumental in assisting the recovery of the patient.

The Speech Language Pathologist can offer rehabilitative services when the patient presents with the diagnosis of oral cancer, coma, neurological impairment, voice disorders, language based disorders and learning disabilities Huntington's chorea, developmental apraxia, aphasia, augmentative and alternate communication devices.

The Speech Pathologist can evaluate and treat patients either directly or indirectly utilizing a Speech pathology assistant that demonstrate the following disabilities:

- ! Swallowing Disorders – which is also referred to as swallowing disorders that can occur in stages: oral phase, pharyngeal phase and esophageal phase.

- ! Some swallowing problems in adults are:  
Stroke (Cerebral Vascular Accident), brain injury, spinal cord injury, Parkinson's Disease, Multiple Sclerosis, Amyotrophic Lateral Sclerosis, Muscular Dystrophy, Cerebral Palsy and Alzheimer's Disease.

#### Head and Neck Disorders:

- ! Cancer in the mouth, throat and esophagus
  - ! Injury/trauma which require surgery to the oral nasal and throat regions
  - ! Traumatic Brain Injury – injury to the head (TBI) may cause interference with normal brain functions. The two broad categories used to describe TBIs: Penetrating Injuries where a foreign object enter the cranial cavity and causes damage to specific brain parts. This focal or localized damage occurs along the route the object has traveled in the brain. Symptoms vary and depend on the part of the brain that was damaged.
  - ! Closed Head Injury- CHI injuries result from a blow to the head as occurs when someone falls or is struck by an object, i.e. shell and mortar fire, collapsing of buildings. What occurs is PRIMARY BRAIN DAMAGE: damage that is said to be complete at the time of impact, and secondary brain damage, damage that evolves over a period of hours to days after the trauma. Primary Injuries may included some or all of the following:
    - Skull fracture
    - Contusions/ Bruises
    - Hematomas/ Blood Clots
    - Lacerations
    - Diffuse axonal injury; which arise from a cutting or shearing force from the blow that damages nerve cells in the brain's connecting nerve fibers.
    - Secondary injuries may include brain swelling (edema) due to exposure to chemical weapons, medication and gases, intra-cranial pressure which can cause altered mental status, hearing loss (ringing, buzzing in the ears), blurred vision, decreased smell and taste, reduced strength and coordination in the oral cavity, head and neck , body arms and legs.
  - ! Specific Communicative Disorders; Traumatic Brain Injury (TBI) often demonstrates cognitive and communicative deficits that may significantly impair a soldiers or civilians ability to function independently. Survivors may have difficulty in finding the words or grammatical constructions they need to express an idea or explain themselves through speaking and writing.
  - ! It may be an effort for them to understand both the written and spoken message, as if they were trying to comprehend a foreign language.
  - ! The SLP can assist in the new found difficulty with spelling, writing and reading, skills that presented no problem prior to their injury.
  - ! The SLP can assist in Social Communication Deficits Disorders
  - ! The SLP can assist in Speech Muscles Disorders
- 
- ! The SLP can assist in Cognitive Problems; refers to thinking skills which includes an awareness of

one's surroundings, sustained attention to tasks, memory, reasoning, problem solving and executive functioning (i.e. goal setting, planning, initiation, self awareness, self inhibiting, self monitoring and evaluation or flexible thinking).

- ! The SLP can directly assist in the treatment of cognitive processing, memory loss, recent and long term memory function, and impaired executive functioning.

## **Audiology Disaster Roles & Scope of Practice**

### **PRACTICE OF AUDIOLOGY**

The practice of audiology includes:

- ! Identification, assessment, diagnosis, management, and interpretation of test results related to disorders of human hearing, balance, and other neural systems.
- ! Otoscopic examination and external ear canal management such as cerumen removal.
- ! Conducting tests of hearing, balance, and neural system dysfunction.
- ! Evaluation and management of children and adults with central auditory processing disorders.
- ! Conducting and supervising newborn hearing screening programs.
- ! Measurement and interpretation of tests for neuro-physiological intra-operative monitoring and cranial nerve assessment.
- ! Provision of hearing care including by selecting, evaluating, fitting, facilitating adjustment to, and dispensing :
  - hearing aids
  - cochlear implants
  - sensory aids
  - hearing assistive devices
  - alerting systems
  - telecommunication systems
  - captioning devices

### **PROVIDING AUDIOLOGICAL REHABILITATION INCLUDING:**

- speech reading
- communication management
- language development
- auditory skill development
- counseling for psycho-social adjustment to hearing loss for persons with hearing loss and their

families and care givers

CONSULTATION TO EDUCATORS AS MEMBERS OF INTERDISCIPLINARY TEAMS:

- communication management
- educational implications of hearing loss
- educational programming
- classroom acoustics
- large-area amplification systems for children with hearing loss
- prevention of hearing loss and conservation of hearing function by designing implementing and coordinating occupational, school, community and military hearing conservation and identification programs

CONSULTATION AND REHABILITATION TO PERSONS WITH BALANCE DISORDERS INCLUDING:

- habituation
- exercise therapy
- balance retraining

1. Engaging in audiologic research
2. Administering audiology graduate and professional educational programs
3. Measuring functional outcomes
  - Consumer Satisfaction
  - Effectiveness
  - Efficiency
  - Cost-Benefit of practices and services

1. Supervision of support personnel
2. Consultation about accessibility for persons with hearing loss in public and private buildings, programs and services
3. Assessment and non-medical management of tinnitus including:
  - biofeedback
  - asking
  - hearing aids
  - education
  - counseling

1. Screening of speech-language and use of sign language (or other communication systems ) for purpose of audiologic evaluation.
2. Consultation regarding:
  - Legal interpretations of audiology findings
  - Effects of hearing loss and balance system disorders

- Effects of noise

1. Case management and services as a liaison for the consumer, family and agencies in order to monitor audiologic status and management.
2. Consultation to industry on the development of products and instrumentation related to the measurement and management of auditory or balance function
3. Participation in the development of professional and technical standards