



A 21st Century Approach to VA Audiology Care

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Accomplishments



- Staffing levels, encounters, and devices increased.
- New and exciting roles for audiologists in TBI-related symptoms (hearing loss, dizziness, tinnitus, processing disorders, hyperacusis)
- Dual Sensory Conference in December, 2009
- Digital hearing aid contract implemented in November
- Progressive Tinnitus Management initiatives
- C&P initiatives
- VA Telehealth initiatives
- Defense Center of Excellence for Hearing Loss



HAIG Survey of ASP Services



- **Purpose: gather baseline information on rehabilitation program and service standards for better coordination of those services and programs (N=140).**
- 86 of 135 programs (64%) had combined Audiology and Speech Pathology services.
- 40 services (25%) report to the Chief of Staff/Nurse Executive, 27 services (17%) report to PM&R, and 17 services (11%) report to a Rehabilitation Service Line. 43 services (27%) report to “Other” executives.
- 18% of the A&SP workforce is eligible to retire within the next five years (before FY 2014).
- 432 of 749 audiologists (58%) hold AuD degrees.
- 610 (83%) have a CCC-A, and 67 (9%) are ABA board certified.
- 11 audiologists hold ABA board certification in CI, a quarter of the 44 audiologists working with cochlear implants in VHA.



HAIG Survey



- 257 inter-service agreements or an average of 1.9 per each of the 135 responding facilities. 23 facilities reported that they did not have any inter-service agreements.
- 125 programs (93%) conduct C&P exams (58% VA staff, 20% fee basis on site staff, 15% combination of VA and fee on-site staff, 5% fee basis off site, and 2% other).
- Perceived (rank-ordered) challenges:
 1. Appropriate space
 2. Appropriate number of staff
 3. Ability to hire clinical staff
 4. Ability to hire support/clerical staff
 5. Appointment waiting times



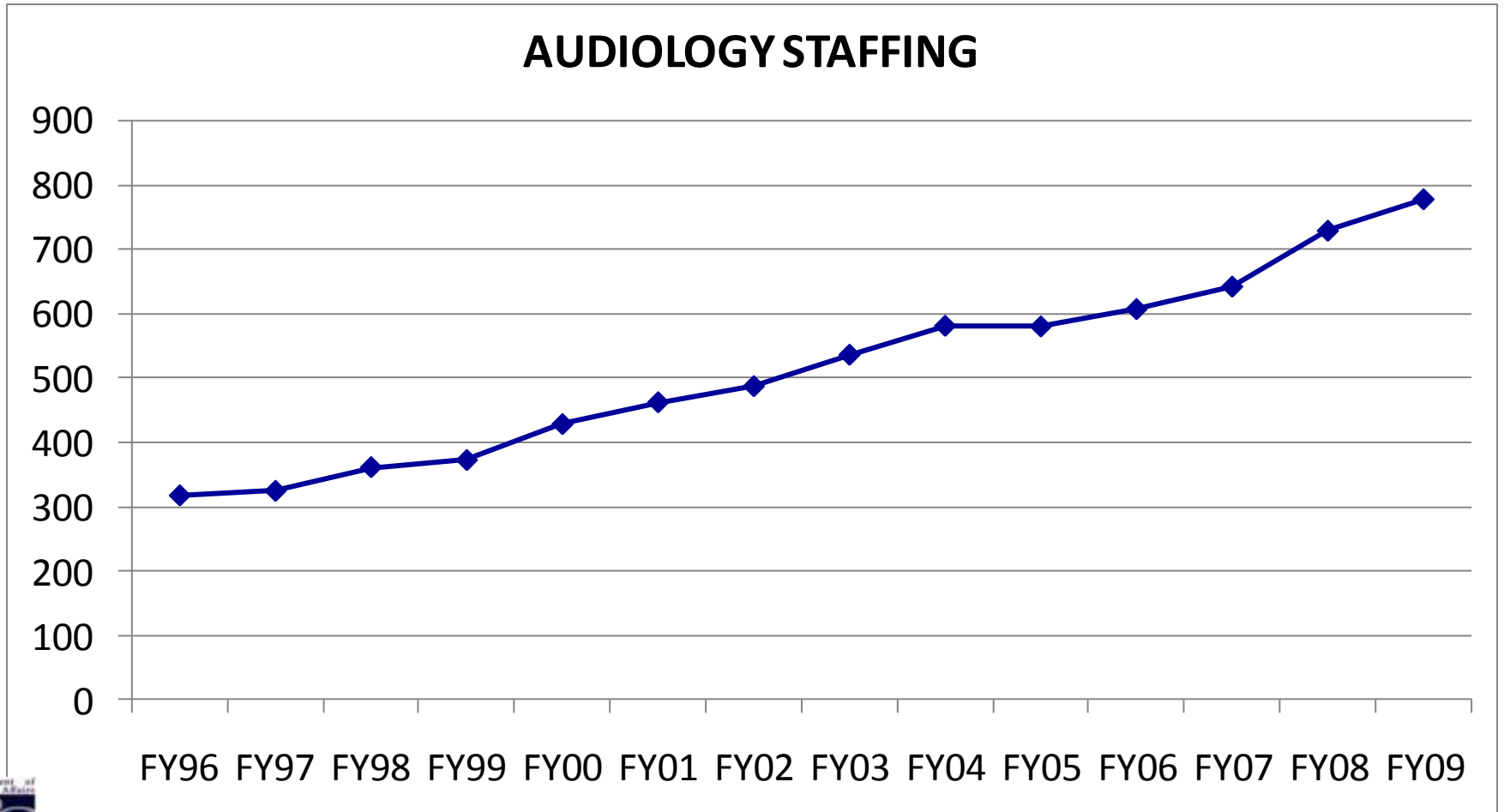
Audiology Staffing and Workload (FY2009)



- 778 audiologists (increased 7% over FY08)
- 19 research audiologists
- 195 health technicians (assistants)
- Audiology services in 230 VHA sites of care
- Audiology visits and encounters
 - 1,205,712 outpatient visits
 - 599,105 unique outpatient Veterans
 - 11,823 inpatient encounters

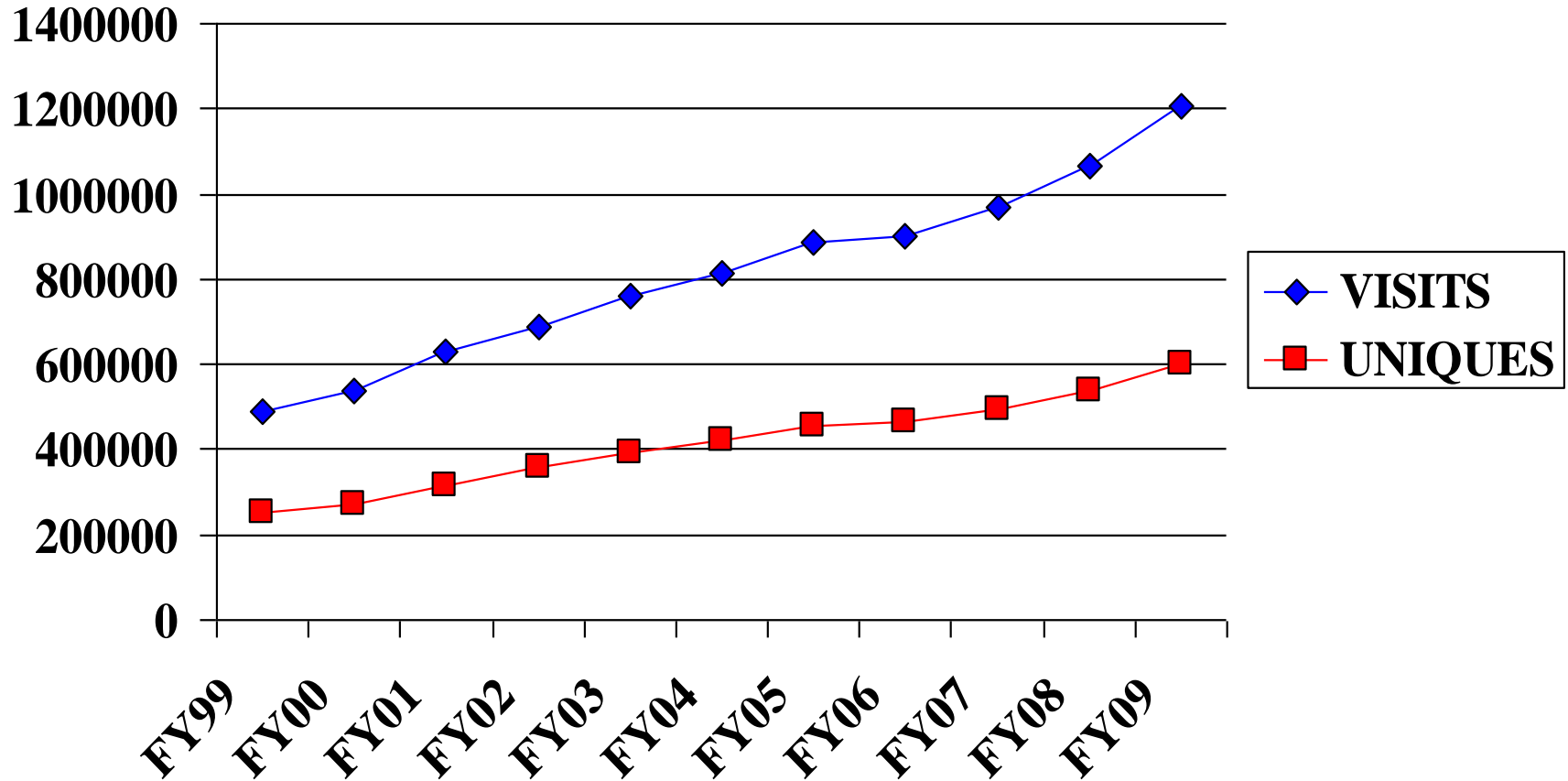


Staffing Trends (1996-2009)





Audiology Outpatient Visit Growth





Hearing Aids



- ***Best technology anywhere.***
- Digital Hearing Aid Contract:
 - New contract with 9 hearing aid manufacturers starting November 2009
- New contract features:
 - RIC hearing aids
 - New rules on clinical training for manufacturers
- Other national contracts:
 - Cochlear Implants
 - Assistive listening devices
 - FM wireless systems
 - Special niche devices (e.g. analog, body, eyeglass hearing aids)
 - Ear molds (in development)
- DoD Centers use VA national contracts



FY2009 Hearing Aid Statistics



- **475,945** hearing aids (+25% over FY2008)
- 238,601 unique Veterans
- Net sales: \$171.1 million
- Batteries: 38 million, \$4.6 million
- Repairs: 283,467, \$13.7 million
- Average hearing aid cost: \$359.44
- VA is 18% of the U.S. market
- **49.9% of hearing aids were issued to new users**

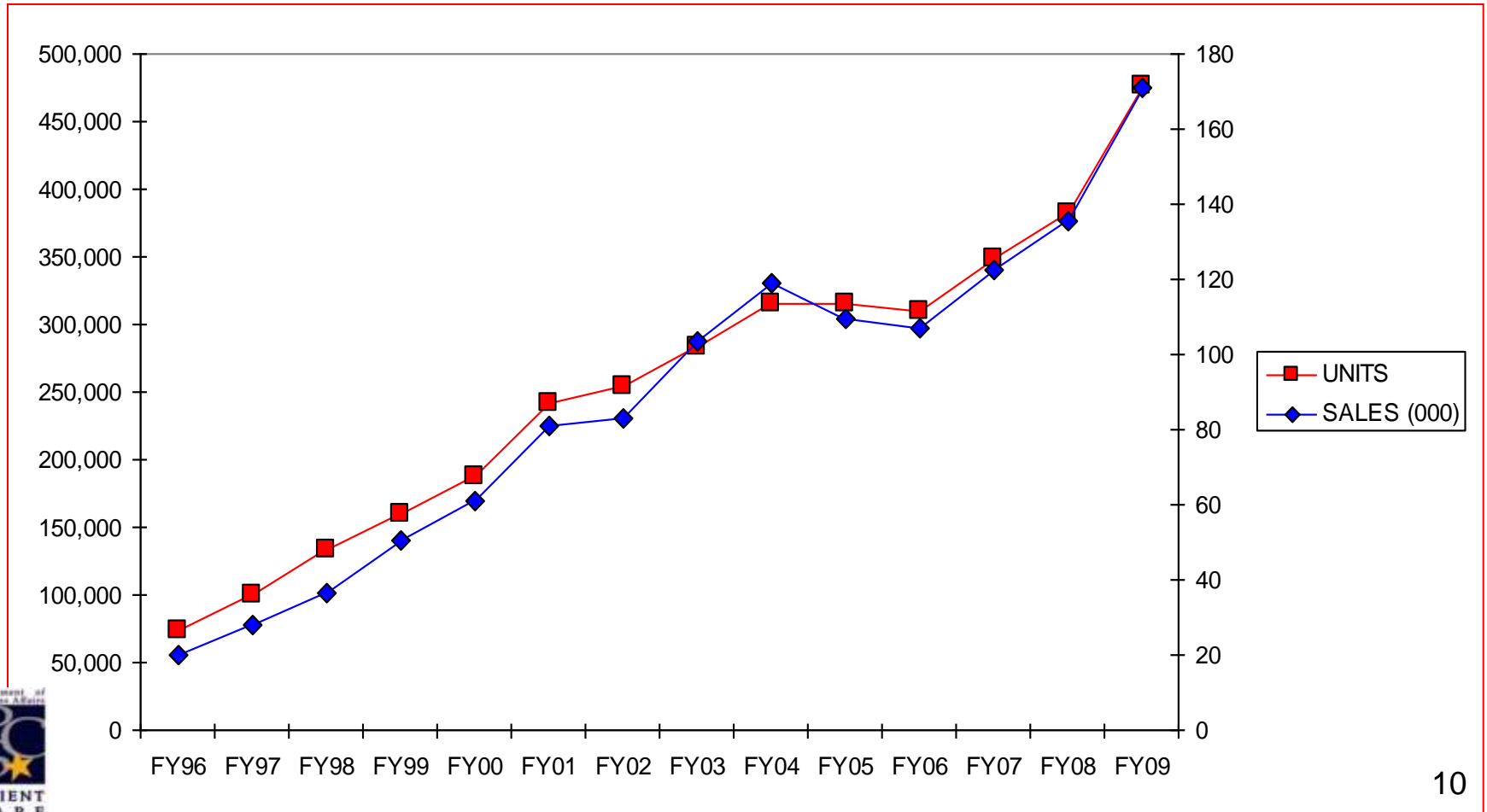


VA Hearing Aid Trends



(FY96-FY09)

Source: VA Denver Acquisition & Logistics Center





Hearing Aid Trends



- Reasons for increased sales:
 - Centralized budget that does not compete with field-based resource demand.
 - Aging Veterans (particularly Vietnam Era)
 - Policy clarifications (VHA Directive 2008-070, released October 28, 2008)
 - New technology (e.g. open fittings to benefit high-frequency hearing losses)
 - Expanded eligibility for VA health care services for NSC (Priority Group 8) Veterans
 - Greater access, more staff, increased sites of care
 - Innovative, quality-focused, patient-centered leadership at all levels



New Contract Trends



November-January (2010) Distribution of Sales:

<u>Category</u>	<u>Items</u>	<u>Pct by Category</u>
Group 1 (ITE)	49,916	36.5%
Group 2 (BTE)	61,253	44.8%
Group 3 (RIC)	15,442	11.3%
Group 4 (CROS/BICROS)	364	.27%
Group 5 (remotes)	9,604	7.0%
Total Sales	136,579	

For the first three months of the new contract, VA saved \$841,879 because of pricing advantages.

Source: VA Denver Acquisition and Logistics Center



Cochlear Implants (FY2009)



- Cochlear implants:
 - 191 implants and 67 speech processors ordered
 - Implants up 12% and speech processors up 30% over FY2008
 - Net sales: \$3.8 million
- 19 CI Centers and 4 CI programming centers
- Other surgical implants: BAHA®

Source: VA Denver Acquisition and Logistics Center



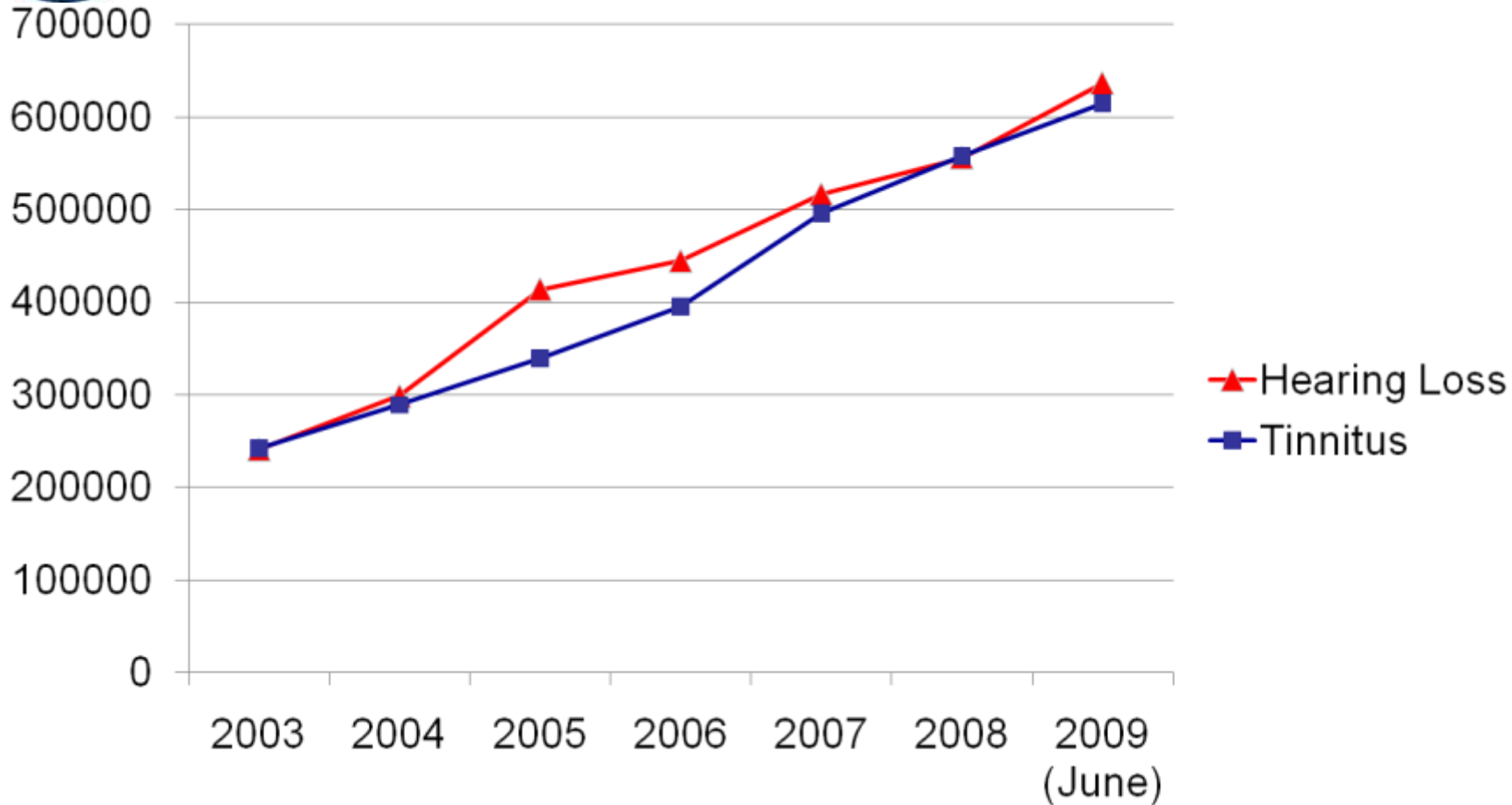
C&P Opportunities



- 636,382 Veterans are service connected for hearing loss
- 614,899 Veterans are service connected for tinnitus
- Hearing loss and tinnitus are ranked #1 and #2 individual disabilities.
- Audiology performed **115,911 C&P exams** in FY2009
 - second most commonly performed exam,
 - and 15% of all C&P exams performed by VHA.
- Number of audiology C&P exams have **increased 34%** since FY2006.
- VBA will process more than **958,000** disability claims In FY2010.



Compensation Trends





Audiology C&P Challenges



- **Secretary has identified improving C&P claims processing as one of the agency's highest strategic priorities.**
 - Reduced backlogs, improved timeliness, and improved accuracy
 - VHA priority: high quality C&P exam reports will be completed and returned to VBA with cumulative average processing days of 30 days or less.
 - Audiology C&P waiting times are tracked and reported.
 - Exam and opinion quality are being tracked by VBA.
 - Opportunity
 - Space and resources
- How do we develop and maintain competency in forensic audiology?
 - **Audiology Certification Exam** in development (required for all audiologists who perform C&P exams)
- How do we keep audiologists informed on C&P issues?
- How do we ensure that VHA, contract, and fee basis audiologists are properly trained to provide C&P services?
- How do we respond to increased demand for C&P exams given scheduling, staffing, and space constraints?



Graduate Education and Training



- VA has major commitment to associated health education.
- Stipend support for trainees
- FY11 Audiology Traineeships awards:
 - 49 Doctoral Externships (92 requested, 53% awarded)
 - 61 Doctoral Clinical Rotations (87, requested, 70% awarded)
- Competitive site selection using automated standards of excellence
- Training to full scope of practice
- Emphasis on inter-professional education
- Evidence-based practice: defining quality and outcomes of care



Educational Opportunities



- Training to full independence and full scope of practice
- Specialized Audiology training models to meet Veterans' emerging health care needs
- Teaching the inter-disciplinary care model (Patient-centered Medical Home)
- Emphasis on team training and function
- Working with academic affiliates
- Post-doctoral clinical training opportunities
- Co-morbidities (chronic illness, dual sensory impairment, auditory manifestations of TBI, mental health, tinnitus and vestibular management)



Professional Development



- Major conferences (Effective A&SP Practice and Dual Sensory Impairment)
- Joint Defense Veterans Audiology Conference
- Web-based continuing education (Audiology Online)
- Manufacturer-sponsored training
- EES and LMS training opportunities (satellite conferences, team training)
- Mentoring Program



Leveraging Information Technology to Change Clinical Practice



- Equipment interfaces send audiometric data into the VA electronic health record and hearing aid ordering system.
- Automated hearing aid and auditory device ordering and tracking system (ROES).
 - NOAH interface
 - Automated outcome measures (IOI-HA)-beta testing
 - Analysis outcomes by age, degree of loss, hearing aid make/model or form factor by facility, network, or national
 - Ear impression scanning project (Boston Evaluation Project)
- National hearing loss repository (over 1.3 million audiograms stored)
- Telehealth Application, Phase I: remote hearing aid programming



Hearing Aid Outcomes



- **International Hearing Aid Outcome Inventory (IOI-HA)**
- Beta tested at five VA medical centers, now being implemented at 20 VAMCs
- Covers a wide range of outcome domains:
 - Use
 - Benefit
 - Residual activity limitations
 - Satisfaction
 - Residual participation restrictions
 - Impact on others
 - Quality of life
- Score on 1 (poorest outcome) to 5 (best outcome) scale
- VA outcomes are better than published norms in all categories.



Access Goals



- Waiting Times
 - National FY09 Performance: 71.9% (desired date)
 - National FY09 Performance: 34.6% (creation date)
- FY2009 Goal: 94% of New Veterans seen in 30 days of creation date.
- Missed Opportunity Goal: 7%
 - **FY2009 National Performance: 6.72%**



FY2010 Measures



- Performance indicator: percent of Veterans seen in 30 days of desired date
- Performance monitor: percent of Veterans seen in 14 days of desired date
 - **Goal:** 50.72% for new patients, 75.37% for established patients
 - **December performance:** 72.9% new, 89.3% established
- Missed Opportunity Goal: 8.17%
 - **December performance: 6.7%**



Access Opportunities



- **Systems Redesign** is the improvement in the way systems work together. *Quality is a property of efficient systems.*
 - Long waiting times are a symptom of imbalances and inefficiencies that can be analyzed and corrected.
- How do we facilitate the principles of Systems Redesign to:
 - Understand demand and clinic utilization
 - Use alternatives to scheduled appointments (e.g. walk-in clinics, telehealth)
 - Manage constraints (audiology staff, space)
 - Increase access points (e.g. CBOCs, telehealth, non-visit consults)
 - Manage demand (e.g. service agreements)
 - Foster team communication
 - Promote patient self-management
 - Optimize the care team (e.g. use health techs)



Audiology Protocols



- What is the evidence base for audiology diagnostic and treatment protocols?
- Are audiology protocols focused on clinical outcomes and patient-centered functional improvement?
- Is audiology addressing the needs complex patients (frail elderly, geriatric illness, cognitive decline, TBI, dual sensory impairment, co-morbid mental health issues)
- What are students learning in school?
 - Basic hearing science
 - Psychoacoustics
 - Accurate diagnosis
- Are system demands dictating inappropriate short cuts in care delivery that impact on quality?
- How can Audiology leaders explaining to senior management unique aspects of audiology care?



Tinnitus Management



- Tinnitus requires a **holistic, patient-centered, inter-disciplinary approach**, not an ear-centric approach
- Significant association with brain injury, noise exposure, hearing loss, ear disease, many medical conditions, and medications.
- Progressive Tinnitus Management (PTM), developed by NCRAR, consists of a **five-level** progressive approach:
 - Triage and referral
 - Auditory evaluation
 - Structured interviews
 - Counseling and group education
 - Tinnitus evaluation
 - Individualized management



Outcome Measures Hierarchy



1. Impairment (audibility)—real-ear measurements.
 - Trust and verify
 - Verification of audibility is critical
 - Audiologist's role?
2. Activity/participation
3. Quality of Life
4. Satisfaction



Audiology Assistants



- 20 states regulate audiology assistants
- Remarkable agreement on what assistants should and should not do
- Developing an Audiology Team model
- Supports Systems Redesign
- Improves productivity, access, and patient satisfaction
- Support Audiology Telehealth



Audiology Telehealth



- How can Audiology promote care coordination telehealth to improve access to care?
- Audiology is working with Office of Care Coordination and Telehealth to develop new audiology telehealth pilot programs.
 - CBOC-based hearing aid tele-programming using remote control software (e.g. GoToAssist)
 - Evaluate home-based tele-rehabilitation (e.g. LACE)
 - Evaluate home-based tele-programming
 - Evaluate CBOC-based tele-diagnostics (remote audiometry)
 - Evaluate care coordination telehealth and store and forward diagnostics (videoconferencing, tele-consultation)



Defense Center of Excellence for Hearing Loss



- Required by National Defense Authorization Act 2009 (PL 110-417, Section 721)
- Mission: Prevention, diagnosis, mitigation, treatment, and rehabilitation of hearing loss and auditory system injury, including auditory dysfunction related to traumatic brain injury.
- Establishes **Hearing Loss and Auditory System Injury Registry**.
 - Tracking of the diagnosis, surgical intervention or other operative procedures, other treatment, and follow-up for hearing loss and auditory system injuries.
 - Electronic exchange capability with VA data systems.
- HCoE will be operationally managed by Air Force



Post-Deployment Clinics



- Integrated, effective, veteran-centric care for returning combat veterans in an accessible primary care setting, using a rehabilitative, health recovery approach
- Over 1 million service members who served in Iraq and Afghanistan have separated and eligible for VA. Over 480,000 are receiving care within the VA
- Unique physical and psychological health concerns:
 - Elevated prevalence of TBI and other injuries related to accidents and trauma
 - Noise exposure, Toxic exposures, Austere conditions
- Multiple combat deployments with complex, protracted readjustment challenges (family, financial, vocational, educational)
- Goals:
 - Help the combat veteran return to a state physical, emotional, and psychosocial well-being
 - Mitigate the long-term health impacts of combat related experiences and exposures
 - Establish connection and trust

How are you connected to the Post Deployment Clinic?



21st Century VA Health Care



- **People Centric**
 - ✓ Honor and Serve Veterans and Their Families
 - ✓ Embrace VA Core Values of Compassion, Integrity, Respect, and Commitment
 - ✓ Engage, Inspire, and Empower Employees
- **Results Driven**
 - ✓ Ensure Improved Access for All Veterans
 - ✓ Provide High-Quality Care and Exceptional Client Relationship Management
 - ✓ Leverage Technology and Adapt Business Processes with Agility
 - ✓ Demonstrate Leadership, Accountability, and Effective Results
- **Forward Looking**
 - ✓ Communicate Widely and Effectively and Conduct Systematic Outreach and Collaboration
 - ✓ Anticipate Veterans Needs and Be Pro-Active in Meeting Them
 - ✓ Develop a VA Culture that Is Forward Looking, Innovative, and Veteran-Focused



Why Does Health Care Need to Change?



- Patients want to participate as partners in their care, especially younger veterans
- Care is convenient and local
 - Walk in clinics – drug stores, groceries, big box stores
 - Neighborhood Urgent Care facilities
 - Online, Connected
- Alternative care (Non-institutional, homelike, complimentary)
- Health care information is readily available
- Preventive health initiatives for Americans
- Chronic health issues of Americans – diabetes, obesity
- Diverse stakeholder groups create multiple expectations
- Expectation that function continues beyond age, injury
- Public awareness of war and veterans, expectations that returning veterans will be restored to full function



Strategic Framework for Change



1. Eliminate Veteran Homelessness
2. Enable 21st Century Benefits Delivery
3. Automate GI Bill Benefits
4. Implement Virtual Lifetime Electronic Record (VLER)
5. Improve Veteran Mental Health
6. Build Veteran Relationship Management (VRM)
7. **New Models of Care**
8. Expand Healthcare Access for Veterans, including Women and Rural Populations
9. Ensure Preparedness to Meet Emergent National Needs
10. Develop Capabilities and enabling systems to drive performance and outcomes
11. Establish Strong VA
12. Transform Human Capital Management
13. Performing Research and Development to Enhance the Long Term Health and Well Being of Veterans



Patient Centered Medical Home



Secretary's transformational initiative

Replaces episodic care based on illness and patient complaints with coordinated care and a long term healing relationship

- The Primary Care Team
 - Takes collective responsibility for patient care
 - Responsible for providing all the patient's health care needs
 - Arranges for appropriate care with other specialties as needed
- Enhanced Access
- Enhanced communication between
 - Patients
 - Providers
 - Staff



Team members

- Clinical Pharmacy Specialist: ± 3 panels
- Clinical Pharmacy anticoagulation: ± 5 panels
- Social Work: ± 2 panels
- Nutrition: ± 5 panels
- Case Managers
- Trainees
- Integrated Behavioral Health
 - Psychologist ± 3 panels
 - Social Worker ± 5 panels
 - Care Manager ± 5 panels
 - Psychiatrist ± 10 panels

The Patient's Primary Care Team

Teamlet: assigned to ±1200 patients (1 panel)

- Provider
- RN Care Manager
- Clinical Associate (LPN, Medical Assistant, or Health Tech)
- Clerk

Patient



Definitions



- **Direct Patient Care:**
 - Care during which the Veteran and provider are directly communicating
- **Non-face to face care:**
 - Direct patient care via the telephone or secure messaging + patient care activities (reviewing labs, filling out forms, etc.) when the patient is not present
- **Unscheduled Care:**
 - Direct and non-face to face care delivered outside of scheduled appointments



Coordination of Care



Definition: *In healthcare, coordination means connections among interdependent people who transfer information toward the goal of advising and enabling the patient and organizing care for the purpose of optimizing the patient's health status.*

Care Platforms

- Collocate necessary services in same space
- Organize work flow to anticipate needs
- Coordinate care activities with the patient
- Ensure all team members function to their optimal level of competence
- Many oncology clinics use this delivery model

Medical Home Model

- Clinic operation built around the convenience of the patient
- Comprehensive “first contact” primary care model with patient and family as the hub
- Integrated Team approach to care
- Top of competency/ Raise competency

Coordination With Private Sector

- Preferred provider arrangements
- Ensure bidirectional information transfer

Active Care Coordination

- Assigned care coordinator
- In home monitoring
- Home telehealth

Patient/caregiver electronic access

- Medical record
- Appointment scheduling
- Accurate Health/Disease information

Enhance non face to face access

- Telephone
- Secure messaging to team/provider
- Enhance MyHealth@Vet

Improve information transfer

- Better CPRS organization of information
- Better CPRS decision-making tools
- Enhance secure messaging and telephonic communication between providers

TODAY'S CARE

My patients are those who make appointments to see me

Patients' chief complaints or reasons for visit determines care

Care is determined by today's problem and time available today

Care varies by scheduled time and memory or skill of the doctor

Patients are responsible for coordinating their own care

I know I deliver high quality care because I'm well trained

Acute care is delivered in the next available appointment and walk-ins

It's up to the patient to tell us what happened to them

Clinic operations center on meeting the doctor's needs



MEDICAL HOME CARE

Our patients are those who are registered in our medical home

We systematically assess all our patients' health needs to plan care

Care is determined by a proactive plan to meet patient needs without visits

Care is standardized according to evidence-based guidelines

A prepared team of professionals coordinates all patients' care

We measure our quality and make rapid changes to improve it

Acute care is delivered by open access and non-visit contacts

We track tests & consultations, and follow-up after ED & hospital

A multidisciplinary team works at the top of our licenses to serve patients



Audiology Challenges of PCHM



- Major cultural shift for Audiology from a consult-driven, specialty-focused clinic to an **interdisciplinary, team-oriented treatment** model
- Emphasize a **holistic, patient-centered approach** in making healthcare decisions: co-morbidities and care provided in other clinics
- Patient and provider communication leading to continuity of services
- Training in team dynamics, interdisciplinary collaboration and communication to facilitate full utilization of an inter- professional health care team
- Do we know how to be on teams?



Thanks for Listening



With malice toward none, with charity for all, with firmness in the right as God gives us to see the right, let us strive on to finish the work we are in, to bind up the nation's wounds, to care for him who shall have borne the battle and for his widow and his orphan, to do all which may achieve and cherish a just and lasting peace among ourselves and with all nations.



*Abraham Lincoln, Second Inaugural Address,
March 4, 1865*