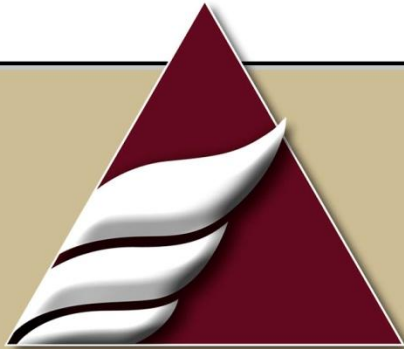


The Professional Supervisor

In the Army Hearing Program



USAPHC

PUBLIC HEALTH COMMAND REGION – EUROPE

MAJ John 'Andy' Merkley, M.S, CCC-A, CPS/A

UNCLASSIFIED

Outline

- The Current State of Affairs
- Regulations
- The Certified Professional Supervisor
- The CAOHC Professional Supervisor Course in Europe
- Lessons learned
- Summary
- Questions
- Conclusion



VOCABULARY

- STS – Significant Threshold Shift
- TTS – Temporary Threshold Shift
- PTS – Permanent Threshold Shift



The Current State of Affairs (Slide 1 of 3)

- Hazardous noise exposure is the greatest that it has been in the military for over 35 years

Chandler, 2006

- The total increase in new compensation awards for hearing loss and tinnitus exceeded 168% between 2000 and 2004 (Department of VA)
- Nearly 70,000 who have served in OEF and OIF are collecting disability for tinnitus (Department of VA)

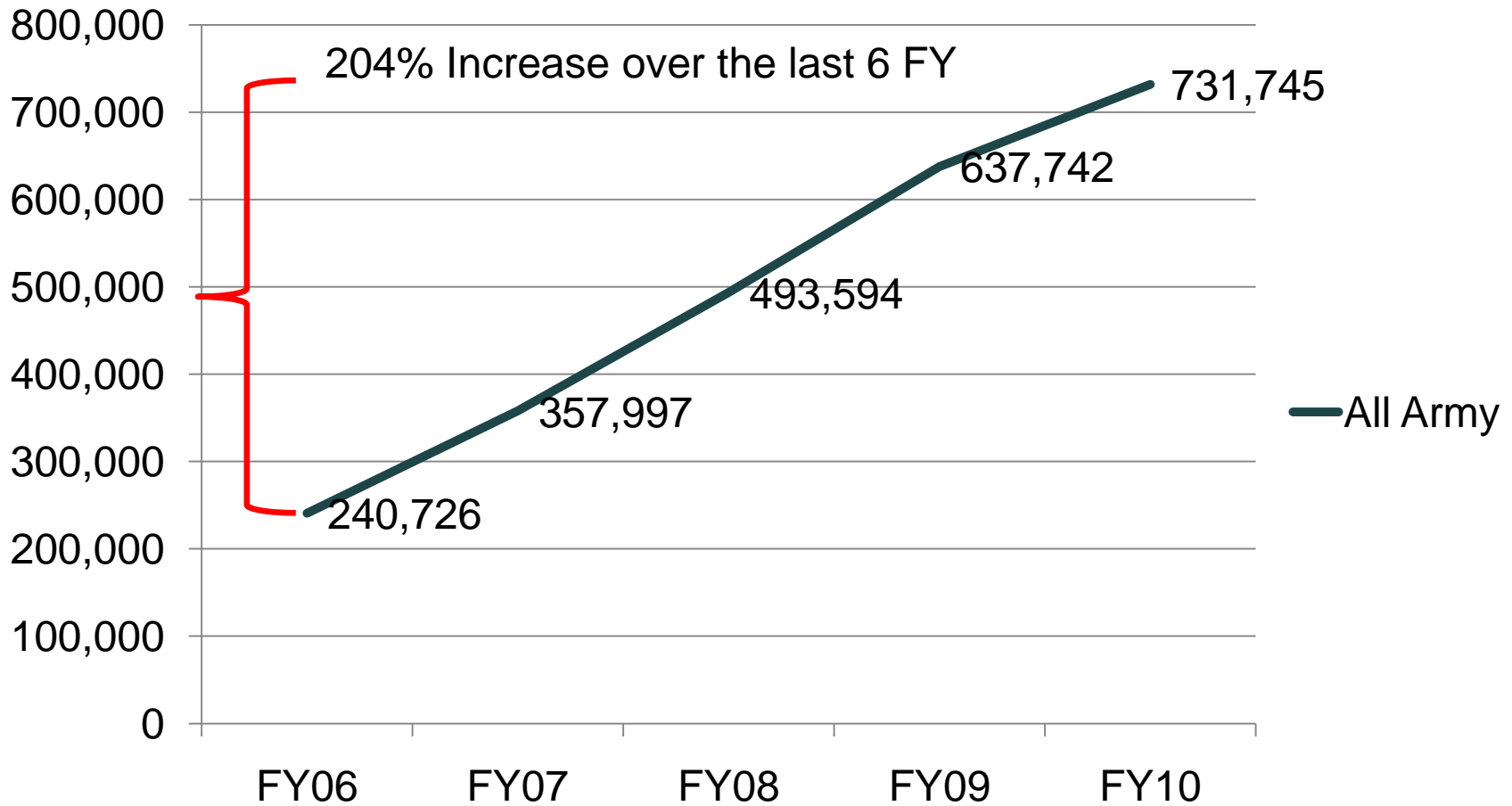
The Current State of Affairs (Slide 2 of 3)

- U.S. troops are suffering hearing damage at about the same rates as WWII vets
- Occupational NIHL is almost 100% preventable
- The key (*to a successful hearing program*) lies in a commitment by both management and workers
(Helmkamp et al 1984)
- Few “qualified” professional supervisors of hearing programs at the installation or clinic level

The Current State of Affairs (Slide 3 of 3)

- 38 active duty 72C audiologists
- Approx. 111 U.S. Army Garrisons, some with multiple installations spread throughout the world
(Installation Management Command)
- In 2009, 548,000 active duty Army personnel served in the active duty Army
(Department of Defense)

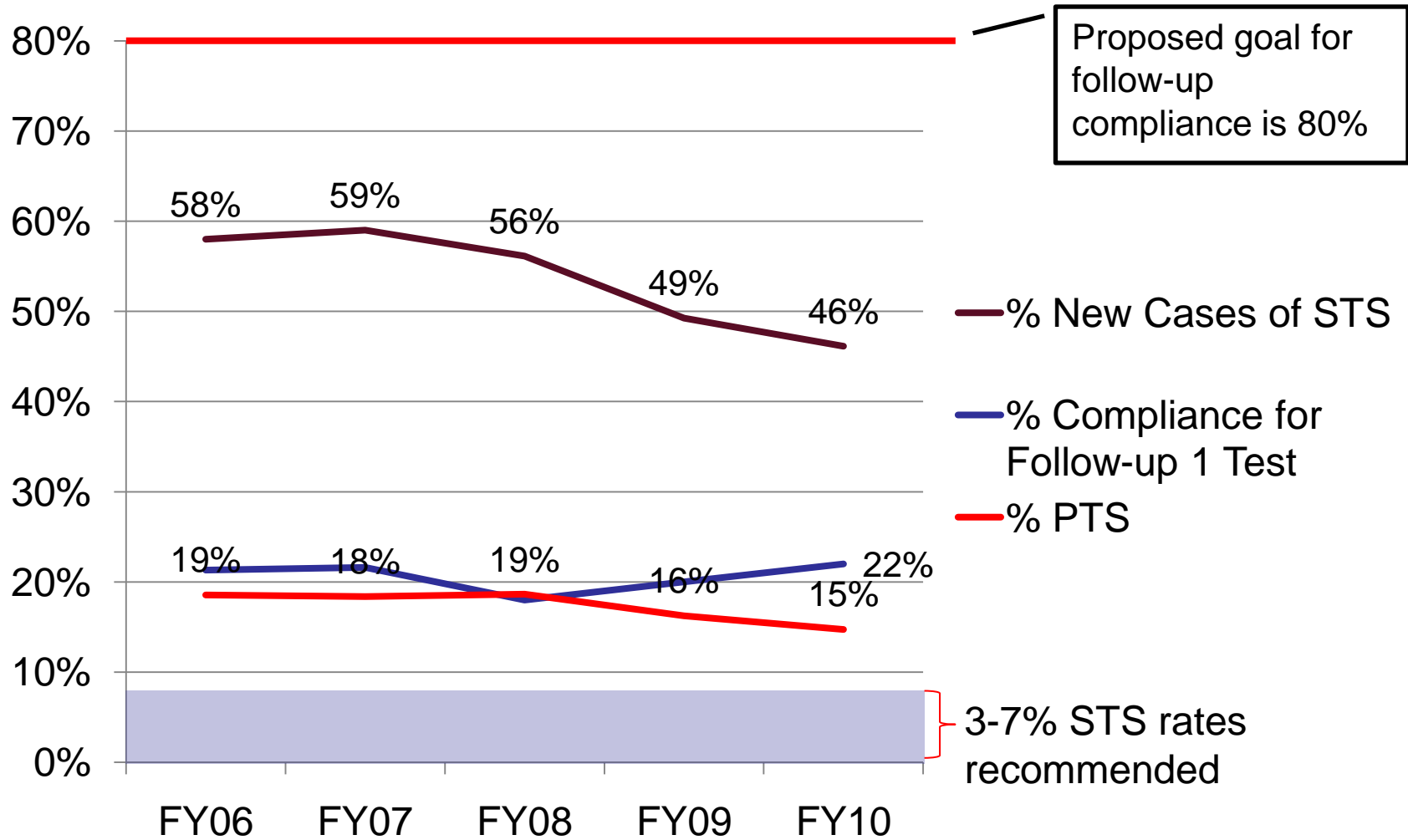
Total Periodic Hearing Tests Army Wide per Fiscal Year (Military and Civilian)



* DOEHRS-HC Data Repository



Army- Wide Statistics (Military and Civilian)



Now let's hear about the Professional Supervisor

Trust me!!
I'm a Pro.



Regulations

The Professional Supervisor must be:

- **29 CFR 1910.95(g)(3)** - An audiologist, otolaryngologist or physician
- **DODI 6055.12 9(b)(1)** - An audiologist, otolaryngologist, or other *qualified* physician”
- **DODI 6055.12 9(b)(6)(f)** - evaluate to determine work relatedness of hearing loss.

What Does “Qualified” Mean?

- The Professional Supervisor (PS) is responsible for
 - establishing policies for the audiometric testing program.
 - Supervision of audiometric testing activities
 - Review of problem audiograms
 - Determination of work-relatedness
 - recommendation of follow-up procedures
 - Management of the audiometric database

*Council for Accreditation in Occupational Hearing Conservation

- **Qualified** = a physician comfortable with, and capable of, performing the above functions.
- Applies to Audiologists and Otolaryngologists

American College of Occupational and Environmental Medicine (ACCOEM)

- The role of the Professional Supervisor in the Audiometric Testing Component of Hearing Conservation
- “Core Competencies”:
 - Supervision of audiometric testing
 - Follow-up of employees with hearing loss
 - Baseline audiogram decisions
 - Use of age correction
 - Determining work-relatedness
 - Additional follow-up of the worker with hearing loss

Where to look for training?

- **Option 1** – Develop your own certification and training program
- **Option 2** – Find a professional organization that has already developed a training/certification program that meets your needs

Option 2: The Council For Accreditation In Occupational Hearing Conservation (CAOHC)

- Recognized as the leading experts on hearing conservation
- Certification body for Occupational Hearing Conservationists (OHC), Course Directors (CDs), and Professional Supervisors (CPS/A)
- A council of representatives from 9 Component Professional Organizations (all volunteers)

Component Professional Organizations

- American Academy of Audiology
- American Academy of Otolaryngology-Head & Neck Surgery
- American Association of Occupational Health Nurses
- American College of Occupational & Environmental Medicine
- American Industrial Hygiene Association
- American Society of Safety Engineers
- American Speech-Language-Hearing Association
- Institute of Noise Control Engineering
- Military Audiology Association

What Does CAOHC Do?

- Sets standards
- Conducts training for Occupational Hearing Conservationists
- Provides Certification for professionals
- Conducts certification training courses for Professional Supervisors
- Monitors and comments on pending hearing conservation legislation



UPDATE

Fall 2004

VOLUME 16 • ISSUE 3 *The Newsletter of the Council for Accreditation in Occupational Hearing Conservation*

Thoughts on the Noise “Notch” and the Importance of Testing 8 kHz



By Mark R. Stephenson, PhD
 Representative for the American Academy of Audiology
 with Christa L. Themann, MA CCC-A and William J. Murphy, PhD

The primary purpose of audiometric monitoring is to identify hearing changes while they are still small. Hopefully, these changes can be identified before they represent permanent changes, i.e., while they are temporary threshold shifts. The susceptibility to developing a hearing loss is not the same at all frequencies. Assuming that a worker’s ears are otherwise healthy, that there is no excess build-up of cerumen, and that appropriate audiometric test methods are followed, hearing changes due to noise are first detected and grow most rapidly at the higher frequencies. The American National Standards Institute (ANSI) provides data estimating expected hearing loss as a function of noise level, years of exposure, and audiometric frequency (ANSI, 1996). Table 1 below illustrates the predicted noise-induced hearing loss for workers exposed to time-weighted average levels of 95 dBA.

Years of Exposure to Time Weighted Average of 95 dBA

Frequency (Hz)	10	20	30	40
500	0	0	1	1
1000	2	3	3	3
2000	5	9	12	14
3000	16	19	22	23
4000	20	23	25	26
6000	14	16	18	19

TABLE 1. Predicted noise-induced hearing loss from daily time-weighted average exposure to 95 dBA for 10, 20, 30, and 40 years (ANSI S3.44-1996).

Plotting the data in Table 1 illustrates how noise-induced hearing loss is primarily observed in the higher frequencies

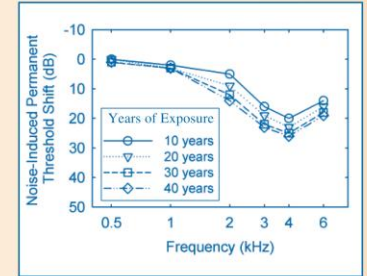


Figure 1 - Noise-induced hearing loss from 10-40 years of exposure at a TWA of 95 dBA

Note: these levels represent only the amount of hearing change that would be attributable to noise. An actual audiogram would reflect changes due to noise, plus any other factors that affect hearing, such as aging.

(Figure 1). Note also that the greatest hearing loss is observed at 4 kHz, giving rise to what is commonly referred to as the 4-kHz “notch.” While these data are illustrative of the 4-kHz notch, they also demonstrate the presence of considerable noise-induced hearing loss at 3 and 6 kHz.

Although noise-induced hearing loss is typically characterized by a 4-kHz notch, the possibility of a notch at other frequencies, particularly at 6 kHz, is well-known (Monley, et al. 1985, Dempsey, 1995). Because of the recent OSHA rule on recording occupational hearing loss (OSHA, 2002), the ability to determine the presence or absence of a “noise notch” must be reexamined (Rabinowitz and Dobie, 2003). OSHA’s new rule includes a provision for determining whether or not a hearing loss is work-related. Consider how a 6-kHz notch would affect the interpretation of a worker’s audiogram. Presently, OSHA (29 CFR 1910.95) does not

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Newsletter for OHCs, CDs, and CPS/A

The Professional Supervisor In Europe

- Two courses
- 27 & 29 September 2010
- Landstuhl and Nuernberg
- Attendees from Army, Navy, Air Force
- Open to Audiologists, Physicians, Occupational Health Nurses, Nurse Practitioners, and Physician Assistants
- Cost: approx \$25,000

Why Para-Professionals

OH Nurses, Nurse Practitioners, Physician Assistants, etc.

- Para-professionals have an ever increasing role in supervision of hearing testing programs
- The scope of practice for para-professionals is increasing - AR 40-501
- Para-professionals are involved in and offer quality assistance in hearing programs



The CAOHC Certified Professional Supervisor Workshop

- An intermediate-level course with a specific emphasis on the application of audiology expertise as encountered in occupational settings
- Review of the current literature and recommended practice guidelines
- Instructors present employee case studies for problem solving, critical thinking and small group discussion
- Highlights responsibilities of Professional Supervisors

Certified Professional Supervisor Course Objectives

- **Participants will be able to:**
 - Define the roles of the Professional Supervisor
 - Recognize key factors in the review process of audiometric databases
 - Become familiar with the standards and regulations that apply to hearing conservation programs
 - Understand the cause of noise-induced hearing loss
 - Identify the medical and legal aspects of managing audiometric monitoring components of an OHCP

The CAOHC Professional Supervisor Workshop in Europe

- Three Instructors, all CAOHC Representatives to the Council
 - COL Vickie Tuten – Military Audiology Association
 - Mary McDaniel – American Speech Language Hearing Association
 - Laurie Wells – American Academy of Audiology
- Occupational Medicine Oversight by COL Eric Evenson, American College of Occupational and Environmental Medicine.



Course Curriculum (Slide 1 of 2)

- Hearing Conservation in the Military
- The PS Scope of Practice including four steps in determination of work relatedness
- Establish & Supervise Audiometric Testing
- Review of Problem Audiograms
- Determination of Work Relatedness and Follow-up of Work Related Hearing Loss
- CASE STUDY DISCUSSION
- Assessing Worker Exposure

Course Curriculum (Slide 2 of 2)

- Management of the Audiometric Data
- CASE STUDY DISCUSSION
- Putting supervision into practice
- Process for Certification as a CAOHC Professional Supervisor

Post Workshop Requirements:

- Successfully complete the online certification examination

Outcome of the Professional Supervisor Workshop

- 18 Personnel throughout Europe attended the course
- 8 Participants successfully completed the post-course examination

2 x Physicians and 6 x Audiologists.

So What Should the Military Professional Supervisor of the Hearing Testing Component of the Army Hearing Program Be Able to Do?

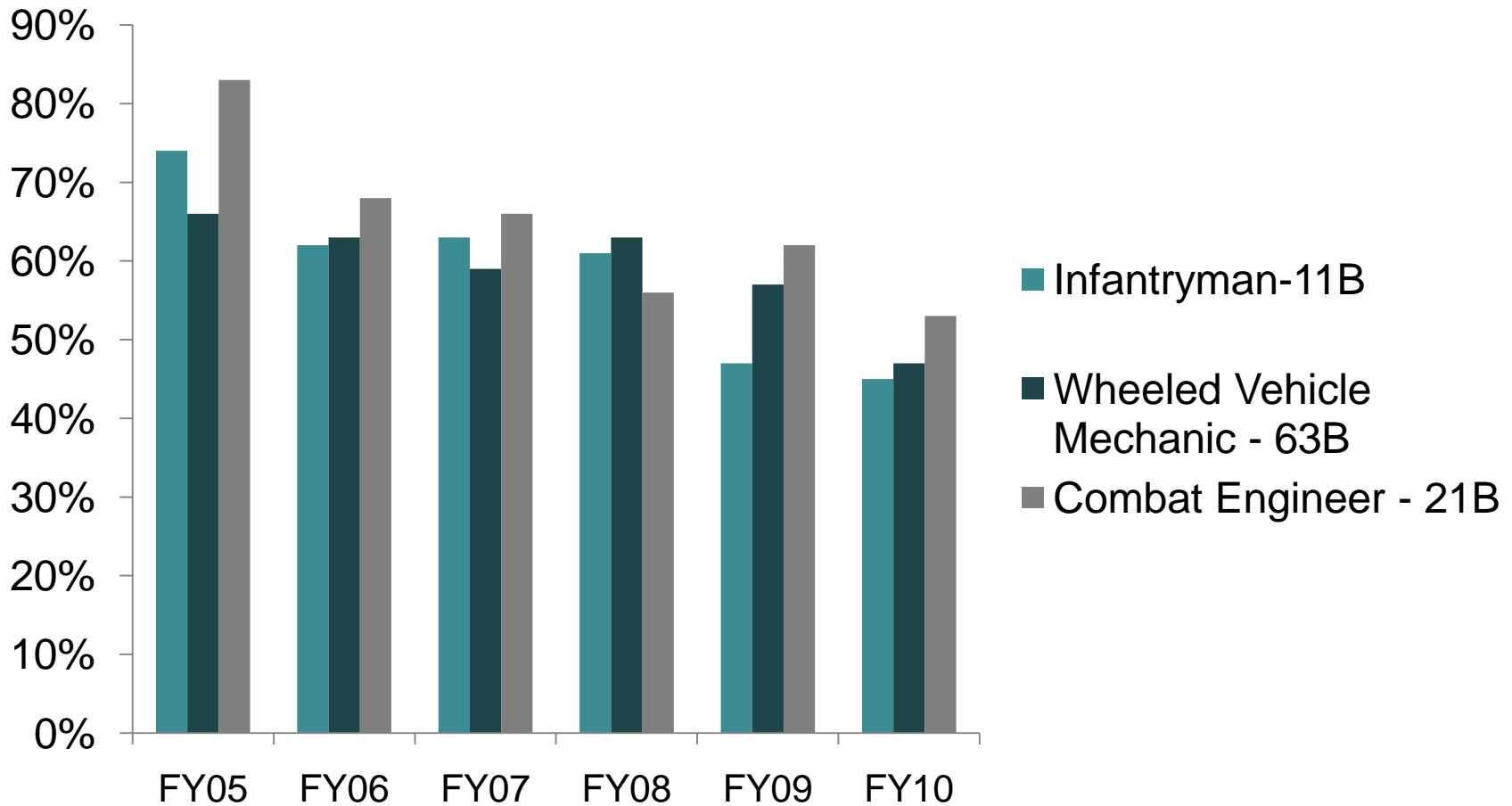
- Access DOEHRS-HC and DOEHRS-DR
- Analyze the data
- Work with the Regional Hearing Program team
- Provide professional guidance
- Determine work relatedness
- Monitor progress and shift gears when needed



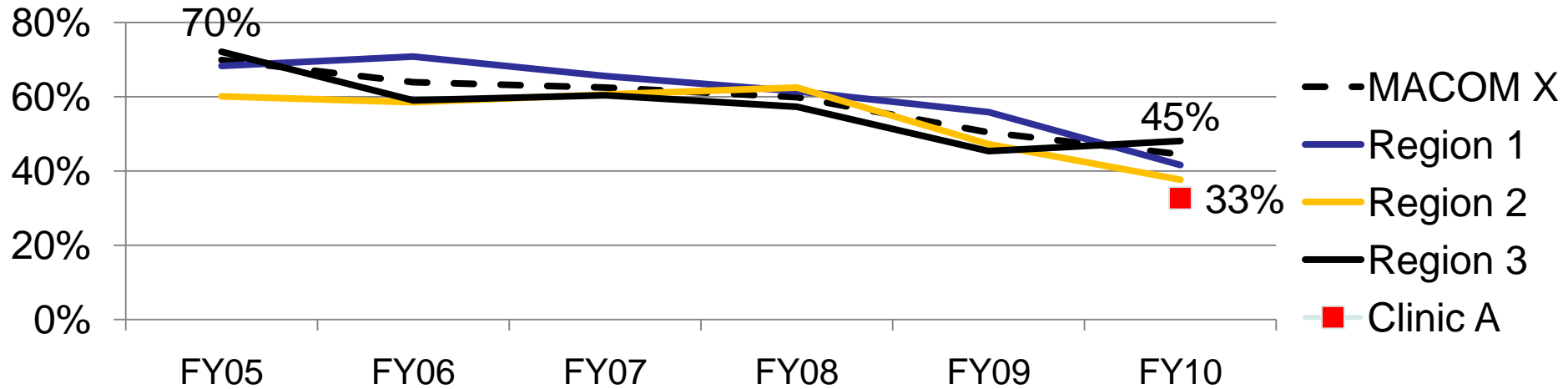


MACOM X MOSs With the Highest STS Rates

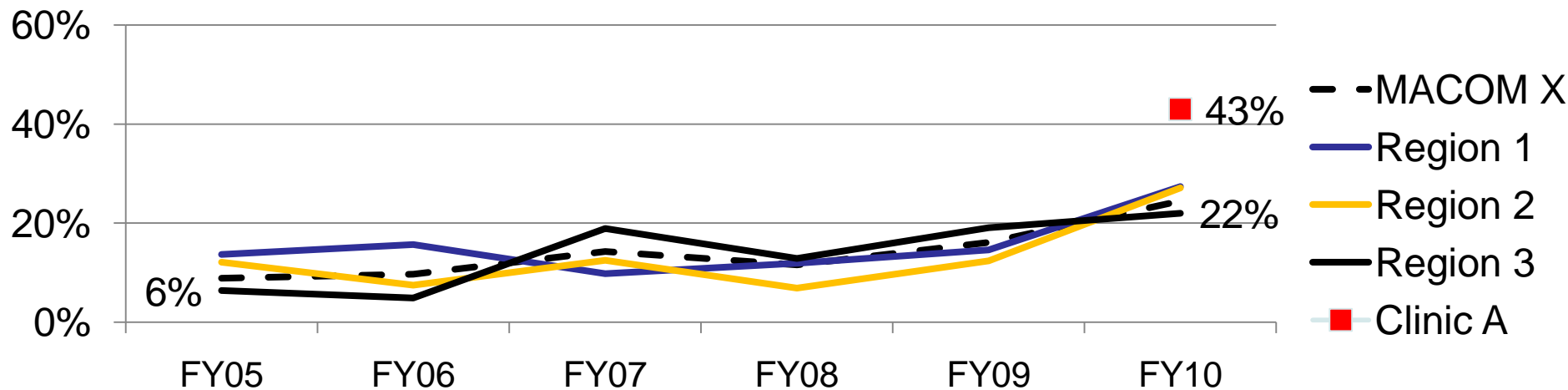
Chart reflects the Percent New STS by Fiscal Year



% New Cases With STS (Military Only)



% Compliance with Follow-up 1 Tests (Military Only)



Lessons Learned

1. Contracting is a pain - START EARLY
2. The cost/benefit ratio
3. The curriculum
4. Need to address unique and specific skills
5. Needs to be longer
6. Advertising courses
7. CAOHC Staffing and Potential for Military Courses

SUMMARY

- The need for Professional Supervisors in the hearing testing component of the Army Hearing Program is evident
- The CAOHC Professional Supervisor Certification Course is a high quality course that can be used in lieu of developing a military unique training program
- CPS/A throughout the Military might be used to provide the training with the approval from CAOHC
- The benefits of having a pro-active Professional Supervisor at the clinic level is key to a successful Hearing Program

QUESTIONS



Conclusion

What have we done for them today?

