

Terminology Services for the NAHLN

Past, Present, & Future

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What are Terminology Services?

- Standard terminology use has been mandated (SNOMED CT, HL7, LOINC)
- Many problems with successful implementation:
 - Veterinary coverage is incomplete
 - Size and complexity is overwhelming
 - Very few with expertise
 - Training takes time and money
 - Few tools to make it easier



What are Terminology Services?

- Terminology Services attempt to resolve the problems:

Problems

Veterinary content

Size and Complexity

Availability of expertise

Training time & expense

Availability of tools

VTSL Solutions

Veterinary Adaption of SNOMED CT

Subsets for each message field

Centralized expertise available to all: Discussion forums, email, phone & web consultation

“Pared down” terminologies/lists; Assist labs in connecting local terms to NAHLN lists; Short courses

Web access to terminology, developed VTSL tools to maintain NAHLN lists and extend content



What's been accomplished

Problem: Veterinary Content

- Veterinary adaptation of SNOMED CT
 - VTSL extension to SNOMED CT
 - SNOMED sanctioned
 - Integrated with SNOMED CT
 - 658 concepts and 1556 descriptions added via lab request/submission
 - Content creation will be ongoing
 - New labs
 - New diseases
 - New tests



What's been accomplished

Problem: Size & Complexity

- NAHLN list creation
 - Shortened lists (subsets) for each message field
 - Relationships maintained for browsing
 - Web interface relates message fields to lists
 - Expanded synonyms and search functions



What's been accomplished

Problem: Availability of Expertise

- Centralized expertise
 - Expertise in terminology, informatics, & veterinary medicine is hard to find
 - Only 6 +/- veterinarians have expertise
 - 3 of these are VTSL
 - Veterinary Schools are not training informaticists
 - Few veterinarians are showing interest
 - Must harness the experts we have



What's been accomplished

- Centralized expertise
 - Discussion forums:
 - Terminology discussion
 - Implementation issues
 - CCB discussions
 - Monitored by experts
 - At least 8 (non-pilot) labs assisted via forums
 - Phone, email, & web consultation:
 - 4 labs assisted via phone, email or web conference



What's been accomplished

Problem: Training time & expense

- Lab Personnel Training
 - Labs don't need high level terminology expertise
 - Need to understand their own terms
 - Need to know where to go for help (VTSL)
 - Short Courses:
 - VTSL participated in 4 short courses
 - 25+ labs participated in at least 1 course
 - Web conference training:
 - Available for any lab who needs one-on-one training.
 - Only 1 lab to date has participated



What's been accomplished

Problem: Availability of Tools

- Tools

- Web access to data:

- <http://terminology.vetmed.vt.edu/nahln/main.htm>
 - Message schema linked to terminology
 - Searchable terminology subsets
 - Downloadable terminology subsets
 - Discussion forums and access to NAHLN documentation

- Tools for maintenance:

- VTSL has tools for
 - Extension creation and maintenance.
 - Subset creation and maintenance.



Current Activities

- Commonly used animal groupings (taxonomy)
- Ongoing activities:
 - Concept submission review
 - Content development
 - Processing semi-annual SNOMED CT updates (Jan & July)
 - Consultation with labs



Future needs

- Lab personnel need add'l training
 - Processing Updates
- Support for search & data analysis
 - Statistical Data Analysis Module
 - Requires clear understanding of SNOMED structure to harness full potential
 - Queries can be powerful, but are complicated
 - Terminology change history must be used to prevent data loss



Future needs

- Current terminology synchronization is inadequate
 - Terminologies synchronized between NAHLN production server, laboratories, and VTSL (NAHLN terminology website)
 - Current process takes days to weeks
 - Need automation to speed synchronization
- Methods repository
 - Terminology services website lists approved methods
 - Synchronization needed.



Ongoing Needs

- Concept submission review
- Content development
- SNOMED CT updates (Jan & July)
- Consultation with labs
- Participation in training sessions
- Revision of website in response to lab comments



Budget Concerns

- Medical terminology receives long-term, stable support (considered central resource)
 - Multiple millions per year (NLM & others)
 - VTSL leverages this central resource for NAHLN
- Veterinary terminology receives NO long-term, stable support
 - Full functionality will not be achieved with nominal year-to-year funding
 - Can not cover overhead
 - Can not maintain well-trained staff



Budget Concerns

- NAHLN leads in the application of standard terminology in Public Health Networks
- Other stakeholders will recognize the benefits of a single veterinary terminology
 - WDIN, NBIS, CDC, FDA, etc
- VTSL's goal is to become a shared national resource



Budget Concerns

- VTSL funding is at a critical stage
 - Previous funding for NAHLN Terminology Services has been bare minimum from CSREES grants, year to year basis
 - VTSL had other funding for other projects
 - Allowed for maintenance of support staff
 - Other projects are or have ended.
 - No longer have funding to maintain support staff.
 - VTSL is ½ of all trained veterinary terminologists
(other ½ are otherwise employed)

