COHRI NEWS

Newsletter of the
CONSORTIUM FOR HEALTH RELATED INFORMATICS
A consortium of dental schools and entities using the axiUm
electronic patient record

Editors: Denice Stewart, Nici Kimmes, George Willis

COHRI History and Organization

Check out the recent publication in the Journal of Dental Education:

Consortium for Oral Health-Related Informatics: Improving Dental Research, Education, and Treatment

JDE Oct 2010:1051:1059

Dear Colleagues,

The interest and participation in COHRI has grown over the past few years with more requests for information from axiUm schools and others — we thought a newsletter might be helpful to provide information on what COHRI is all about and report the great successes of the organization and member schools. We hope you enjoy it and welcome comments or ideas for future issues!

COHRI Board

The Consortium for Oral Health Related Informatics (COHRI) was formed in February 2007 during a Users Group Meeting of dental schools who used the same EHR platform (axiUm). The Tufts University School of Dental Medicine had proposed the idea to form a consortium to share data to facilitate clinical research in dentistry. Subsequently, the first meeting of COHRI was held just 5 months later in June 2007 with representation from 10 dental schools. At the July 2008 meeting, COHRI formalized the organizational structure and created a board of directors.

VISION:
Link resources for better research and patient care.

The Consortium for Oral Health Related Informatics has as **mission** to:

- ♦ Create, standardize and integrate data using electronic health records.
- ♦ Cooperate with other health related institutions to share data.
- ♦ Improve informatics utilization in dental education, health care, and research.
- ♦ Work together as a consortium to develop research projects to promote evidence based dentistry.
- ♦ Define and facilitate the implementation of best practices and standards of care.

COHRI is made up of general dentists, specialists, clinic and health care administrators, statisticians, dental informaticians, data analysts and modelers, computer scientists, system administrators, and software developers using the axiUm clinic management system. Our members expertise and dedication are key strengths of COHRI.

COHRI Schools receive $4 million grant to validate diagnostic codes, Congratulations to Harvard, UCSF, UT–Houston, Creighton and ACTA

The advent of the electronic health record (EHR) affords unprecedented clinical research opportunities to improve the nation's health. Dentistry is uniquely positioned to leverage the EHR's power because nearly all US dental schools use the same EHR system. Twenty dental schools, including HSDM, have formed the Consortium for Oral-Health-Related Informatics and have agreed to deposit their data in a common data repository, which will be the largest ever oral-health research database.

An important impediment to the consistent integration of these data, however, is the lack of uniformly accepted dental diagnostic terms. Unlike in medicine, in dentistry diagnostic terms have not been mandatory as part of billing procedures and consequently no single system of uniformly accepted diagnostic terms exists in dentistry. Beyond clinical research, the lack of diagnostic terms negatively affects many facets of clinical dentistry, including quality of care, patient communication, tracking of clinical outcomes, reporting of community oral-health status, identifying and tracking high-need groups, and identifying and tracking best practices.

Harvard School of Dental Medicine's assistant dean for clinical affairs, Elsbeth Kalenderian, DDS, MPH '89, is working to change this situation. With a $4 million grant from the National Institute for Dental and Craniofacial Research of the National Institutes of Health, Kalenderian is leading a multicenter study, that includes University of California at San Francisco School of Dentistry, University of Texas Dental Branch at Houston, Creighton University School of Dentistry, Tufts University School of Dental Medicine and the Amsterdam Center for Academic Dentistry, using human-computer interaction methods to create a system through which a provider can capture a diagnosis into the EHR by selecting the appropriate diagnostic term from a predefined list.

"The result," says Kalenderian "is likely to greatly increase dentists' satisfaction with entering dental diagnoses, the number of times diagnoses are entered into the EHR, and the number of dental schools that adopt this practice, while also reducing the number of mistakes during diagnosis entry."
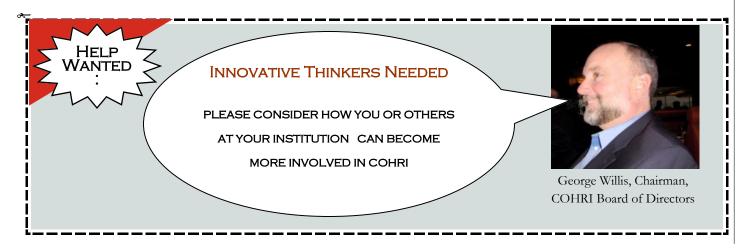
ACHIEVEMENTS

Although the consortium only came into existence since 2007, the member schools have worked collaboratively and achieved a great deal in such a short time.

Accomplishments to date:
♦ Developed and implemented a standardized medical/dental history intake form (see page 4)
♦ Developed and implemented a standardized diagnostic terminology (EZcodes) (see page 4)
♦ Awarded multi-center G08 grant for development of a data repository (UT Houston, UCSF, Tufts, Harvard)
♦ Awarded multi-center R01 grant to validate the EZcodes (Harvard, UT Houston, UCSF, Creighton, ACTA, Tufts)
♦ 2 Manuscripts, describing the development of COHRI (JDE October 2010) and development of the EZcodes (accepted, pending publication)
♦ Awarded Poster (AMIA 2009) and TechExpo (ADEA 2010)
♦ Poster presentations at Association for Dental Education in Europe 2009 and 2010
♦ 2 programs scheduled for ADEA 2011—lunch and learn and new ideas

Current consortium activities:
➔ The Diagnostic Term workgroup meets at a minimum 4 times per year. It has just accomplished a revision of the EZcodes and during that process met weekly.
➔ The Clinical Research workgroup meets weekly for 1.5 – 2 hours to discuss issues related to the G08, R01, develop ideas for future grant submissions, work on manuscripts, posters and abstracts as well as write grants. The group shared their IRB submissions allowing for an easier process for the schools involved with the grants.
➔ The Data Integration workgroup meets weekly to develop the work funded through the G08 grant (development of the data repository).
➔ The Student Clinical Research workgroup is developing a ToolKit to help students understand the basics of planning research activities.
➔ The Health History Workgroup developed the standardized health and dental histories. It just finalized which part of the histories will be considered required to use and which parts will be considered "additional".
➔ The Education arm developed a number of virtual patients and continues to add to the library. Additionally two PBL teaching cases, teaching how to add and manage patients in the axiUm EHR were shared with all the COHRI members.
➔ The Operational arm developed the website, developed a Membership Agreement and wrote an extensive business plan. Additionally, detailed Bylaws were developed and approved by the entire membership.
➔ The Board meets monthly by conference call.
➔ The Membership meets twice a year: once during the Exan Summit in January in Vancouver, Canada and once at its semi-annual meeting, which to date has been hosted on a rotating basis by the Board members' school.

HELP WANTED :

INNOVATIVE THINKERS NEEDED

PLEASE CONSIDER HOW YOU OR OTHERS

AT YOUR INSTITUTION CAN BECOME

MORE INVOLVED IN COHRI

George Willis, Chairman,
COHRI Board of Directors

The benefits of COHRI Membership

COHRI members work collaboratively and synergistically to promote and conduct clinical research and improve dental education. Members have the following benefits:

- *Participate in research with consortium members.*
- *Sharing data for research with access to all consortia members' data.*
- *Share resources, protocols, and processes.*
- *Collaborate to improve patient care.*
- *Share information through COHRI website.*

Two key projects of COHRI are of particular use to schools—the standardized demographics and medical and dental history form and the use of the EZ diagnostic codes.

Standardized Demographics, Medical History and Dental History

The Data Standardization Committee has created standardized Demographics, Medical History and Dental History forms for COHRI schools to use. COHRI schools using the forms must not change any of the question or answers and must use the same set-up for the questions in the EPR form in axiUm. This will allow for easy data mining. Schools are free to add any questions to their own form and databases that they wish to ask at their school. Please note that recent revisions to the latest version of axiUm have provided for an opportunity for the committee to update the set-up of the EPR form in axiUm. This will begin shortly and all COHRI schools will be notified when this becomes available. As well, the committee, in conjunction with the COHRI Board of Directors, is re-evaluating the forms to determine "core questions" that all COHRI schools should be asking. As well, this information will be presented to all COHRI schools once it becomes available. The forms in paper and EPR version in axiUm can be obtained by contacting Nici Kimmes – nsk@creighton.edu. As well, any questions regarding these forms can be directed to Nici.

Diagnostic Vocabulary

The newly developed diagnostic vocabulary consists of 1158 diagnostic terms subdivided into 13 categories and 78 sub-categories for easy retrieval. This will allow all of us to standardize how we document diagnostic findings and as such allow for better research capabilities. This vocabulary is protected through copyright, which means that *no reproduction or use of this material is permitted without specific written permission from COHRI.* The COHRI membership has also agreed that in order to maintain integrity of the vocabulary no one can alter, edit, add or delete any of the terms or (sub)categories. COHRI will review the vocabulary this summer and thereafter bi-annually and looks forward to your comments and suggestions for improvement. If you have any questions regarding the diagnostic codes or if you would like to begin using the codes, please contact Elsbeth Kalenderian -- Elisabeth_Kalenderian@hsdm.harvard.edu for further information.

Being a participating member

Being a contributing member of COHRI benefits not only your institution but through the interactions and power of many institutions working together there can be a significant impact on dental education and dentistry.

COHRI AT THE SUMMIT!

Please join us for the pre-Summit COHRI meeting. The Consortium of Oral Health Related Informatics will hold its annual meeting on Sunday January 30th beginning at 8 AM. COHRI provides a venue for schools to engage in collaborative educational and clinical research across institutions.

There is no charge to attend the COHRI meeting; however, space is somewhat limited. Individuals from both COHRI member schools and non-member schools are invited to attend the program.

The preliminary agenda for our meeting is:

8:00 - 8:30   Welcome and coffee

9:00 – 11:30   Reports from committees and workgroups including updates on the COHRI medical/dental history and diagnostic codes

11:30 – 1:00   Lunch

1:00 - 2:00   Brainstorming new workgroups: 1. Quality Assessment and Improvement

2. Developing e-portfolios for student assessment 3.Caries Risk Assessment 4. Other new ideas

2:00 – 3:30   Business meeting focus on future directions and election of Board members

We hope to see you at the meeting. If you would like more information about COHRI, please contact George Willis (gwillis@iupui.edu), Chair or Denice Stewart, Chair-elect (stewarde@ohsu.edu) COHRI Board of Directors.

See you in Vancouver!

Summer School!

SUMMER PROGRAMS

In addition to the annual meeting prior to the axiUm Summit, COHRI members meet each summer in a working session. Summer sessions have been hosted at:

University of California San Francicso—2008

This inaugural summer meeting was a great success and set the ground work for a successful COHRI future.

Indiana University—2009

In addition to a lot of hard work, the group managed to get some time at the Indiana zoo with a special behind the scenes introduction to zoo dentistry from George Willis who has provided crowns, RCT and other treatment for the animals—including our friend here!

University of Texas Health Science Center Houston - 2010

This meeting was very productive with a lot of work done by the Diagnostic Code Workgroup and the Med/Dent Hx Workgroup. The group managed to carve out a little time to visit NASA—COHRI in outer space!

July 23, 2010

Oregon Health & Science University—tentative for 2011

The next COHRI meeting is tentatively slated for Portland Oregon with Oregon Health & Science University hosting.

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COHRI Organization

COHRI structure is based on a Board of Directors, Steering Committees, Workgroups and member-ship. The roles and responsibilities and rules of operation are set forth in the by-laws document which were approved by the membership.

Board of Directors

	Officer	Institution	Email
Chair	George Willis	Indiana University	gwillis@iupui.edu
Chair-elect	Denice Stewart	Oregon Health & Science University	stewarde@ohsu.edu
Secretary	Nicole Kimmes	Creighton University	nicolekimmes@creighton.edu
Research Chair	Paul Stark	Tufts University	Paul.stark@tufts.edu
Education Chair	Tom Meng	Creighton University	thomasmeng@creighton.edu
Finance Officer	Elsbeth Kalendarian	Harvard University	Elsbeth _kalenderian@hsdm.harvard.edu
Member	Joel White	University of California San Francisco	whitej@dentistry.ucsf.edu
Member	Muhammad Walji	University of Texas Health Science Center—Houston	Muhammad.f.walji@uth.tmc.edu
Ex-officio member	Ted DeVries	Exan Academics, Inc.	tdevries@exansoftware.com
Past Chair	Robert Chapman	Tufts University	rjc999@mac.com