

Monitoring Emergency Department Use for Dental Problems

Laurie Barker, MSPH

National Oral Health Conference

American Association for Community Dental Programs

Annual Symposium

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National Center for Chronic Disease Prevention and Health Promotion
Division of Oral Health



A little background about CDC

- **Division of Oral Health** <http://www.cdc.gov/oralhealth>
 - *Funds 20 state health departments to develop infrastructure for oral health*
 - *State dental director*
 - *Surveillance System, epidemiologist*
 - *Evaluation capacity*
 - *Coalition, Water Fluoridation, school-based sealant programs, etc.*
 - *Cooperative agreement with Association of State and Territorial Dental Directors*
 - *Many areas of collaboration*
 - *Surveillance system, technical assistance to state oral health programs*
 - *Collaboration with other agencies, national partners*

A little background about CDC

- ❑ **BioSense** <http://www.cdc.gov/biosense>
 - *Mandated in the Public Health Security and Bioterrorism Preparedness and Response Act of 2002*
 - *integrated national system for early detection and rapid assessment of potential bioterrorism-related illness*
 - *Funds 16 states, 4 cities, more participate without funding*
- ❑ **National Center for Health Statistics (NCSH)**
 - *Many national and state-based surveys, random samples*
- ❑ **National Center for Injury Prevention and Control (NCIPC)**
 - *Monitors intentional and unintentional injuries*
 - *Morbidity and mortality from opioid analgesics (unintentional)*

A little background about oral health surveillance

- ❑ **Major national health surveys included oral health at points – 1970s-1990s**
- ❑ **Also separate national surveys for oral health (1980s)**
- ❑ **Mid-1990s – greater focus on need for state data, comparable across states**
- ❑ **Need to compare burden of oral diseases to other diseases, using the same population and risk data**
 - *Greater integration of oral health into existing major national and state-based surveys*
- ❑ **Need for local data recognized, improving, not fully realized yet**

INITIAL INTEREST – 2007

CDC BioSense – interested in “secondary use” of biosurveillance data system

ADA – interest in more substantial information on ED use and hospital admissions for aspiration pneumonia associated with poor oral health among frail elders

States – analyses of cost of hospital OR treatment for caries among young children (NY), some assessing variation by fluoridation status (LA)

Initial Steps

- ❑ **Are there enough visits for dental problems in BioSense to proceed with the project?**
- ❑ **What other data sources are available?**

Initial Steps

- ❑ **Are there enough visits for dental problems in BioSense to proceed with the project?**

- ❑ **Result**
 - *Small, but visible proportion of visits included ICD-9 codes for dental problems*
 - *Similar to proportion for some other chronic diseases*

- ❑ **Enough to proceed with BioSense analysis**
 - *BioSense main mission took priority – Gulf oil disaster, fires, etc.*
 - *Transitions in BioSense organization*

Initial Steps

- ❑ **Are there enough visits for dental problems in BioSense to proceed with the project?**
- ❑ **What other data sources are available?**
 - *Medical Expenditure Panel Survey*
 - *Health Cost and Utilization Project*
 - *National Hospital Ambulatory Medical Care Survey*
 - *National Emergency Department Sample*
 - *State Emergency Department Samples (for purchase)*
 - *Not every state every year*
 - *Medicaid, possibly Medicare claims data*
 - *Data sets from insurance data aggregators (for fee, usually)*

Current activities with CDC and ADA/CAPIR

- ❑ **Coordination with ADA projects (Roundtable #19)**
- ❑ **Development of surveillance measure for BioSense**
 - *Review of refereed journal articles (Poster #1)*
 - *Measure testing – Chief Complaint and ICD-9 Final Diagnosis*
 - *Not complete national coverage, growing ~13% of all visits*
- ❑ **Description of ED use for dental problems among patients reporting Medicaid as expected form of payment (NC)**
 - *Overall estimates and by payor will also be presented*
 - *Description of multiple visits, county rates, trends*
 - *NC has ~100% coverage, can estimate visit and population rates*

Current activities with CDC and ADA

- **Manuscript accepted Journal of Public Health Dentistry**
 - *Recent Trends in Dental Emergency Departments in the U.S. – 1997/98 to 2007/08 (Tom Wall)*
 - *National Hospital Ambulatory Medical Care Survey (NHAMCS)*

Upcoming, future developments

❑ **BioSense is transitioning to BioSense 2.0 (in the cloud)**

- *initial focus is on primary mission, data accuracy, functionality for participating facilities for outbreak/disaster response*

❑ **CDC/CMS data sharing**

- *NCHS has linked Medicaid and Medicare data to NHANES*
 - *No state or local estimation, but **linkage between exam and claims**, longitudinal to some extent*
- *Work is underway to support CDC access to CMS data, primarily again for outbreak/disaster response, but with potential for chronic disease program use*

Upcoming, future developments

- ❑ **Need inventory of measures used with emergency department data that may not be in peer-reviewed literature**

- *Measures from hospital administration reports, legislative reports, state offices*

- ❑ **Quality measurement**

- *Although the main focus of quality measurement development for oral health is not in this area, there may be potential for development of hospital-based quality measures related to oral health*

CDC's National Center for Injury Prevention and Control (NCIPC)

- ❑ **CDC and American College of Emergency Physicians (ACEP) are collaborating on a clinical policy regarding opioid analgesic prescribing in emergency departments for acute and chronic pain.**
 - *The draft is in clearance now, with anticipated publication in late 2012.*
- ❑ **CDC/NCIPC has funded two-year randomized controlled trials (NC, WA) to study the use of consistent care plans for frequent emergency department users**

CDC's National Center for Injury Prevention and Control (NCIPC)

- ❑ **Although at least 40 states have operational Prescription Monitoring Programs (PMPs), the policies governing data use for public health or epidemiological studies vary among the programs.**
 - *PMP data cannot identify the kind of pain being treated or whether the prescription was written in an ED.*
 - *Prescription Behavior Surveillance System will link de-identified data from 5 states beginning July 2012.*

Take away messages

- ❑ **National level data exist to monitor emergency department use for dental problems**
- ❑ **Need for standard surveillance measures**
 - *Not to replace existing useful ones, but to allow comparison across states, local areas, local-state-national comparisons*
- ❑ **Centralized and federated data sources are in development**
 - *Will support both nationally or state coordinated reporting and local area monitoring*
- ❑ **State and local data exist and are being used now**
 - *Collaboration with those data programs could be useful at state and local levels, earlier than national efforts*

* Citations, references, and credits – Myriad Pro, 11pt

BioSense 2.0 Redesign

The screenshot shows a Windows Internet Explorer browser window displaying the BioSense Redesign Collaboration Site. The browser's address bar shows the URL <https://sites.google.com/site/biosenseredesign/?pli=1>. The page features a large banner with the text "bioSense Program Redesign" over a background of a magnifying glass and a microscopic image. A left-hand navigation menu includes links for Home, About this Project, Community Forum, Resources, Library, Project Team, and Collaborator Login. The main content area contains a welcome message, a link to ASPR's 2012 Public Health Challenge, and a news section with two entries from April 25, 2012, and one from March 21, 2012. A small graphic of a laptop on clouds is positioned next to a paragraph about BioSense 2.0 being open for business.

BioSense Redesign Collaboration Site - Windows Internet Explorer provided by ITSO

<https://sites.google.com/site/biosenseredesign/?pli=1>

File Edit View Favorites Tools Help

BioSense Redesign Collaboration Site

bioSense Program Redesign

Home

- About this Project
- Community Forum
- Resources
- Library
- Project Team
- Collaborator Login

News

April 25, 2012 - Make sure you check out the BioSense intro video! View it by clicking [HERE!](#)

April 25, 2012 - If you wish to be notified of future updates and postings please provide your [contact information](#).

March 21, 2012 - ASPR's 2012

Welcome to the BioSense Redesign Collaboration Site! We invite you to participate in the redesign effort through a variety of ways provided below. Also, please feel free to reach us at [info AT biosen DOT se](mailto:info@biosen DOT se).

ASPR's 2012 Public Health Challenge is now available! Check it out here: [Now Trending - #Health In My Community](#).



BioSense 2.0 is open for business! For more information on how to join, email: [info AT biosen DOT se](mailto:info@biosen DOT se). Twenty-first century surveillance is here!

To view a video about BioSense 2.0, click [HERE](#).

Internet 100% 8:00 AM



Photo Title – Myriad Pro, Bold, Shadow, 20pt

Caption for photo, references, citations, or credits – Myriad Pro, 14pt

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Thank you, AACDP!

Questions?

Laurie Barker

lub2@cdc.gov

(770) 488-5961

For more information please contact Centers for Disease Control and Prevention

1600 Clifton Road NE, Atlanta, GA 30333

Telephone, 1-800-CDC-INFO (232-4636)/TTY: 1-888-232-6348

E-mail: cdcinfo@cdc.gov Web: www.cdc.gov

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

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