

# **State-Based Occupational Health Surveillance Meeting**

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## **Principal Investigator #1**

C. Mack Sewell, MS, DrPH

CSTE President-Elect

State Epidemiologist

New Mexico Department of Health

1190 St. Francis Drive, Room N-1350

Santa Fe, NM 87502

PI for Project period: 08/01/2005 through 07/31/2007

## **Principal Investigator #2**

Letitia K. Davis, ScD, MS, EdM

Occupational Health Surveillance Program

Massachusetts Department of Public Health

250 Washington Street, 6<sup>th</sup> Floor

Boston, MA 02108

PI for Project period: 08/01/2007 through 07/31/2010

## **Applicant Organization**

Council of State and Territorial Epidemiologists

2872 Woodcock Blvd, Ste 303

Atlanta, GA 30341

## **Administrative Official for Applicant Organization**

Patrick J. McConnon

Executive Director

Council of State and Territorial Epidemiologists

2872 Woodcock Blvd, Ste 303

Atlanta, GA 30341

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## **List of Abbreviations**

CSTE – Council of State and Territorial Epidemiologists

OH – Occupational Health

MMWR – Morbidity and Mortality Weekly Report

HHE – Health Hazard Evaluations

NIOSH – National Institute for Occupational Safety and Health

ABLES – Adult Blood Lead Epidemiology and Surveillance

ASTHO – Association of State and Territorial Health Officials

CDC – Centers for Disease Control and Prevention

COSS – Consortium of State-Based Surveillance

PI – Principal Investigator

SBS – State-based Surveillance

FACE – Fatality Assessment and Control Evaluation

NORA – National Occupational Research Agenda

SENSOR – Sentinel Event Notification System for Occupational Risk

WestON – Western States Occupational Network

OSHA – Occupational Safety and Health Administration

BRFSS – Behavioral Risk Factor Surveillance System

## Abstract

The Council of State and Territorial Epidemiologists (CSTE) Annual Conference is a national scientific meeting that brings together leaders of applied epidemiology from federal, state, territorial, and local public health agencies. Participants are provided the opportunity to weigh in on national policy discussions and decisions. The conference includes an occupational health (OH) track that provides epidemiologists working in states an opportunity for workforce development and is a mechanism for state OH programs to share their work. This conference also offers an important and unique opportunity for OH epidemiologists to network across disciplines such as environmental health, injury, and emergency preparedness and to promote the integration of OH into mainstream public health practice. Thus, the expected outcome is a better prepared, trained, and directed public health epidemiology workforce to address the most pressing morbidity and mortality issues facing occupational health practitioners.

The overall goal of the CSTE annual conference is to provide an effective forum for sharing knowledge on the application of disease and injury prevention and health promotion through the use of effective public health surveillance and good epidemiologic practice. This knowledge is shared at the conference during pre-conference workshops, plenary discussions, breakout and poster sessions as well as roundtable discussions. This annual scientific conference is the major forum for discussing opportunities, challenges, and advances in practicing epidemiology in states, thereby facilitating improvements in state-based public health surveillance. The objectives of the State-Based Occupational Health Surveillance Meeting award were to:

- To provide a resource dense forum and educational experience for occupational health epidemiologists to present and discuss findings and recommendations on specific occupational health topics during pre-conference workshops, plenary discussion, breakout and poster sessions, and roundtable discussions.
- To provide an environment for networking with peers working in state, local, and federal health agencies to promote information sharing within the occupational health community and collaboration between occupational health and other public health disciplines.
- To support policy discussions, for example, nationally notifiable diseases and conditions, electronic health records, electronic disease reporting, surveillance systems initiatives and CSTE Position Statements.

Project objectives were met through the occupational health track at the annual conference, which includes a day-long Sunday pre-conference training workshop; seventeen breakout sessions, multiple poster sessions, and three roundtables where occupational epidemiologists working in the states present their work including successes, lessons learned, challenges and other surveillance findings. In the last five years, 240 occupational health epidemiologists have been awarded travel support to attend the CSTE annual conference. Every year, an average of 48 epidemiologists is awarded travel support to attend the conference as a result of this cooperative agreement award. In the occupational health track, there have been 46 poster presentations and 89 occupational health sessions, including oral presentations and roundtables.

The information shared during the conference often initiates new endeavors and accelerates progress towards new surveillance collaborations. Every annual conference provides an opportunity for NIOSH surveillance program colleagues to engage occupational health state-based surveillance partners in discussions of occupational lung disease, adult blood lead epidemiology and surveillance, and pesticide poisoning surveillance and case coding exercises.

As a result of the annual conference being a forum for information sharing, important collaborations and partnerships have been formed, including joint publications, working groups, integration with other CSTE committees, position statements specific to occupational health, indicators for surveillance, national meetings, and data demonstration projects. Occupational health participation in general surveillance and policy discussions at the annual conference have led to inclusion of non-infectious conditions of occupational health significance on the nationally notifiable conditions listing and have led to further involvement in the national discussion on electronic medical records.

## **Section 1**

### ***Highlights/Significant Findings***

As a result of this conference cooperative agreement, CSTE has provided the opportunity to epidemiologists to present and discuss major occupational health surveillance findings; network with other occupational health epidemiologists; network with epidemiologists from other public health disciplines; and submit occupational health position statements for response to federal and other national agencies.

### **Present and discuss findings and recommendations on specific occupational health topics**

During the past five annual conferences, there have been 46 poster presentations and 89 breakout sessions on occupational health, including oral presentations and roundtables. Over 200 epidemiologists and partners have attended the Sunday pre-conference workshop. The occupational health planning committee planned several joint pre-conference sessions on a number of topics such as climate change providing opportunities for collaboration. Presenters have ranged from state occupational health surveillance program staff and epidemiologists at federal agencies to labor union and industry representatives enhancing network opportunities and overall richness of the annual conference.

### **Networking with occupational health epidemiologists and epidemiologists from other disciplines**

The CSTE annual conference hosts over 900 applied public health epidemiologists and public health professionals on average every year. To date, 240 occupational health epidemiologists have been awarded travel support to attend the CSTE annual conference in the form of full or registration only travel scholarships. Each year, an average of 48 epidemiologists is awarded travel support to attend the conference as a result of this cooperative agreement award.

Networking with other occupational health epidemiologists is emphasized between occupational health sessions, during open forum discussions in the mornings and evenings, and poster sessions. Networking with epidemiologists from other public health disciplines occurs between sessions, during the CSTE sponsored opening reception, President's Banquet, and in the exhibit hall.

### **Occupational Health Position Statements**

There have been over 150 position statements and subsequent policy discussions within the last five years of the CSTE annual conference. CSTE members have submitted 5 position statements during the award funding period and were able to discuss these pertinent national surveillance issues with the entire CSTE membership (approximately 950 members). Additionally, CSTE issued a press release regarding an occupational health position statement to redefine the surveillance case definition for elevated blood lead in adults from 25ug/dL to 10ug/dL. The press release was picked up by approximately 167 websites and news agencies, including Reuters.

1. Reducing the Risk of Bronchiolitis Obliterans Due to Diacetyl and Other Food Flavorings (2006)
2. State-level Occupational Illness and Injury Epidemiology Capacity (2008)
3. Public Health Ascertainment and National Notification for Silicosis (2009)
4. Public Health Reporting and National Notification for Elevated Blood Lead Levels (2009)

5. Public Health Ascertainment and National Notification for Acute pesticide-related illness and injury (2009)

***Translation of Findings***

The significant findings of this project express the importance of collaboration to enhance occupational health surveillance capacity in states. Information provided during the occupational health track at the annual conference includes information to promote increased awareness in emerging surveillance issues, encouraged sharing of lessons learned and successes across states and programs, and provides an opportunity to highlight epidemiological and statistical findings. Breakout session presentations and roundtable discussions encouraged epidemiologic investigation and enhanced surveillance on topics presented at the annual conference.

Additionally, eight new states, many who have sent representatives to the annual conference, have recently applied and received NIOSH funding to develop occupational health programs, expanding state-based surveillance capacity in the US. Attendees walk away from this national scientific meeting with ideas that will assist in improving state occupational health infrastructure and the public health workforce.

***Outcomes/Relevance/ Impact***

Support for the CSTE annual conference participation has allowed for junior staff to attend the CSTE annual conference. Participation of these individuals is imperative to the development of the epidemiology workforce and to help build a public health infrastructure around occupational health. Presenters share information on new and innovative ideas on how to tackle public problems faced by workers. These issues are pertinent locally, to other states and to federal programs. Specific annual conference sessions have encouraged joint publications (Morbidity and Mortality Weekly Report (MMWR) articles, CSTE indicators report, state success stories publication) that would not have been possible without such a gathering of occupational health and other public health professionals. Furthermore, occupational health participation in general surveillance and policy discussions at the annual conference have led to inclusion of non-infectious conditions of occupational health significance on the nationally notifiable conditions listing and have led to further involvement in the national discussion on electronic medical records.

The occupational health track of the annual conference has increased awareness about occupational health issues; promoted outreach to employers, workers, health care providers and to NIOSH (e.g. Health Hazard Evaluations (HHE) requests); encouraged enhanced surveillance or epidemiologic investigation on topics presented at the annual conference; generated ideas that assist in improving and focusing the methodology involved in conducting surveillance; prompted the occurrence of national meetings on occupational health topics; promoted the development of indicators for surveillance; provided guidance for surveillance issues of concern; pushed for state data demonstration projects; provided evidence for the development of a national occupational health publication website; encouraged participation in various CSTE committees and other public health organizations; and the National Institute for Occupational Safety and Health (NIOSH) sponsored Adult Blood Lead Epidemiology and Surveillance (ABLES), occupational lung and pesticide poisoning sessions have enabled the exchange of ideas between programs to ensure all states are able to collect data in a similar manner.

## **Section 2**

### ***Scientific Report***

#### **Background**

Each year, the Council of State and Territorial Epidemiologists (CSTE) holds an annual conference for its members and partners working in state, local, tribal, territorial and federal health agencies. The meeting serves as the largest meeting of applied epidemiologists in the United States, hosting 900 epidemiologists and public health professionals on average. Participants are also provided the opportunity to weigh in on national policy discussions and decisions. The conference includes an occupational health (OH) track that provides an opportunity for workforce development and is a mechanism for state OH programs to share their work. This meeting provides a forum for information sharing and networking of professionals working in occupational health surveillance, epidemiology, and other subject areas.

CSTE is an organization of member states and territories and represents the perspective of epidemiologists working in state and local governments in matters related to the practice of public health. CSTE is also a professional association of over 950 public health epidemiologists working in federal, state, local, tribal health agencies, and U.S. territories to detect, prevent, and control conditions of public health significance. CSTE works to establish more effective relationships among state and other health agencies, and to provide technical advice and assistance to partner organizations, such as the Association of State and Territorial Health Officials (ASTHO), and to federal public health agencies such as the Centers for Disease Control and Prevention (CDC), including the National Institute for Occupational Safety and Health (NIOSH). For more than five decades, CSTE and CDC have worked together in partnership to improve the public's health by supporting the efforts of epidemiologists working at the state and local level and by promoting the effective use of epidemiologic data to guide public health practice and improve health. CSTE members have surveillance and epidemiology expertise in a broad range of areas including occupational health, infectious diseases, immunization, environmental health, chronic diseases, injury control and maternal and child health.

In conjunction with this conference, CSTE hosts an annual meeting of State-based occupational health epidemiologists and other professionals (Consortium of State-Based Surveillance, COSS). Principal investigators (PIs) of the NIOSH funded State-based Occupational Health and Safety Surveillance (SBS) cooperative agreement are required to attend two grantee meetings per year to promote the development of an "integrated and interoperable state-based surveillance program". One of those two required SBS meetings is held in conjunction with the CSTE annual conference each year. The SBS meeting is held on one afternoon Monday through Wednesday for 90 minutes, and the objective of these meetings are to deal with specific grant related activities including cooperative agreement related administrative issues.

Unlike meetings limited to occupational health practitioners, this conference provides an important and unique opportunity for occupational health epidemiologists to network across disciplines such as environmental health, injury, infectious disease, and emergency preparedness and to promote the integration of occupational health into mainstream public health practice. The CSTE annual conference serves as a key venue for the training and networking of state-based epidemiologists working on NIOSH-funded programs in states, such as Fatality Assessment and Control Evaluation (FACE), the Adult Blood Lead Epidemiology and Surveillance Program (ABLES), and Expanded occupational health surveillance programs.

Principal topics covered include occupational injury and disease surveillance, building state-based surveillance capacity, reviewing data sources for occupational health surveillance, and integrating occupational health into public health practice. Participants include epidemiologists and public health practitioners working in state, local, tribal, and federal agencies, academia, and private organizations.

### **Specific Aims**

The overall goal of the conference is to provide an effective forum to gain valuable knowledge on the application of disease and injury prevention and health promotion through the use of effective public health surveillance and good epidemiologic practice. This knowledge is shared at the conference during pre-conference workshops, plenary, breakout and poster sessions as well as round table discussions.

The State-Based Occupational Health Surveillance meeting objectives include providing an environment for: 1) occupational health epidemiologists to present findings and recommendations from surveillance activities and investigations in their states and territories; 2) an educational experience offering workshops on current occupational health and other public health issues; and 3) networking with peers working in state, local, and federal health agencies to promote information sharing within the occupational health community and collaboration between occupational health and other public health disciplines.

### **Procedures**

Planning for each annual conference continues for more than one year. Components critical to the success of the annual conference include: development and ongoing maintenance of the annual conference website and abstract submission site; development of planning committees; development of the annual conference agenda program; and the conference evaluation. The CSTE national office, Executive Board, and CSTE member volunteers all come together to create a successful conference.

There has been an occupational health track at the CSTE annual conference for more than 10 years. This track has included a day-long Sunday pre-conference workshop; multiple breakout sessions where occupational epidemiologists present their work; multiple poster sessions; and full-day breakout sessions for ABLES, occupational lung diseases, and pesticides surveillance to share successes and work on specific surveillance issues such as data coding and multiple state data analysis. CSTE members in occupational health gather via conference calls over the course of five to six months to plan the occupational health program.

Each CSTE annual conference consists of oral presentations in plenary and concurrent breakout sessions, as well as organized sessions around topics of special interest (roundtables) and committee sessions. The State-Based Occupational Health Surveillance Meeting consists of a day-long workshop on Sunday, followed by individual presentations on Monday through Wednesday. The presentations describe cross-cutting public health policy issues, surveillance methods and research, epidemiologic investigations, studies and results, national, state and local program updates, and public health surveillance experiences. In addition to providing formal venues in which epidemiologists can meet with other local, state, and federal public health partners, the CSTE annual conference also provides ample opportunity for informal discussions and social interaction with colleagues at venues like the annual Jonathan Mann lecture at the President's Banquet.

### **Methodology**

Planning the logistical arrangements for the annual conference starts twenty-four months prior to the conference, beginning with a visit to the home state of the CSTE President-Elect to evaluate venues to host the conference. In September prior to the conference year, a conference program planning committee of CSTE member volunteers is convened and planning for the conference begins to take place via conference calls on at least a monthly basis followed by an in-person meeting by January by the Executive Board to finalize the program. The CSTE lead consultant from the various program areas, including occupational health, establishes a planning committee to prepare their specific program area agenda with the assistance of CSTE Staff including the Director of Operations, Deputy Director, Epidemiology Program Director, the Members Services Coordinator, and the CSTE President-Elect. The chair of the occupational health planning committee, who also participates in the overall conference planning committee, traditionally has been an occupational epidemiologist from the state health department of the host state. Abstracts are submitted November through January. It is the responsibility of each planning committee to arrange the submitted abstracts into an agenda program. Conference details are first publicized to CSTE members and partners in January of the conference year with updates and reminders to groups like the occupational health subcommittee following every few weeks thereafter until the conference commences. Additionally, CSTE publicizes the opportunity for late breaking abstract submissions on emerging public health issues.

The effectiveness and organization of each conference were evaluated using paper-based or electronic evaluation forms. Evaluation forms were included in the conference packets given to each attendee at the time of registration or participation was solicited more formally via email at the completion of the conference. The evaluation form evaluates the following areas:

- Plenary topics
- Concurrent sessions
- Roundtable sessions
- Poster sessions
- Sunday pre-conference workshops
- Networking opportunities
- Accommodations at the Hotel
- Meeting facilities
- Overall satisfaction

The information received from each evaluation was compiled and thoroughly read searching for commonalities of comments and suggestions, which are documented and considered for future conferences. The purpose of the evaluation was to identify improvements for future conferences.

## **Results and Discussion**

Work-related injuries and illnesses can be prevented. Successful approaches to making workplaces safer and healthier begin with having the information necessary to understand the problem. Public health surveillance is necessary for determining the magnitude of work-related injuries and illnesses, identifying workers at greatest risk, and establishing prevention priorities. State health data sources provide information to fill gaps in national surveillance systems and the opportunity to link surveillance to intervention at the state and local levels. State-based occupational surveillance is essential for gathering information so public health practitioners can identify how to best protect the health and safety of working people.

CSTE remains committed to building state occupational public health capacity and continues to be a critical forum for sharing information and fostering partnerships among professionals in this field. The CSTE annual conference provides an environment where state-based occupational health epidemiologists can learn, discuss, and present best epidemiology practices and

surveillance research findings, as well as strategies for translating findings into preventive action. The conference also provides an opportunity to debate and promote policy positions of national importance. The CSTE annual conference has provided core support for the training and networking of state-based epidemiologists working on NIOSH-funded programs in states, such as FACE, ABLES, and Expanded occupational health surveillance programs.

***Provide a resource dense forum and educational experience for occupational health epidemiologists to present and discuss findings and recommendations on specific occupational health topics during pre-conference workshops, plenary discussion, breakout and poster sessions, and roundtable discussions.***

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***Provide an environment for networking with peers working in state, local, and federal health agencies to promote information sharing within the occupational health community and collaboration between occupational health and other public health disciplines.***

The accomplishments in the occupational health track at each of these meetings – 2006-2010 – are summarized below.

#### 2006 Annual Conference (Anaheim, CA)

Sunday pre-conference workshop attendees discussed strategies for reaching workers through presentations from colleagues in academia, states, and an advocacy group. The morning session was followed by discussions on the importance of sentinel cases in occupational health surveillance and occupational aspects of disaster response with speakers from states, National Institutes of Health, and California Professional Firefighters. The workshop concluded with a discussion on the role of state activities and the NIOSH strategic plan/ National Occupational Research Agenda (NORA) 2.

There were 19 breakout sessions and roundtables on Monday through Wednesday of the annual conference that addressed the following topics:

- Data: reporting and underreporting
- Reports on lead exposures from the states (ABLES)
- Common issues in occupational and environmental health
- The Occupational Safety and Health Administration (OSHA) lead in construction standard: thirteen years after
- Occupational illness surveillance

- ABLES reporting issues
- An overview of activities from newly-funded states
- Updates on pesticide poisoning surveillance activities
- Intervention
- Diacetyl and Bronchiolitis Obliterans
- Pesticide poisoning intervention and prevention activities
- Occupational respiratory illness
- Sentinel Event Notification System for Occupational Risk (SENSOR)-pesticides: coding consistency and general discussion
- Web publishing as a tool for occupational health data dissemination
- Occupational pesticide illness
- COSS Meeting
- COSS coordination committee meeting

Some outcomes of the conference included:

- Shortly before the June annual conference, California had just identified its second of two cases of flavor manufacturing workers with bronchiolitis obliterans. The occupational health planning committee organized a late breaker session on the diacetyl hazard to bring together people to hear about this emerging problem in California and strategize on what could be done across the US to address the health of flavoring-exposed workers. This session set the stage for increased awareness about this issue and for actions taken subsequently by states and NIOSH. These actions included outreach to employers, workers, and health providers and Health Hazard Evaluations (HHE) requests to NIOSH for assistance with flavoring related issues in several states (flavor manufacturing, use of flavored oils in food preparation, food manufacturing). California has since conducted industry-wide medical surveillance in flavor manufacturing and identified other workers with disease, published articles in MMWR and the American Journal of Industrial Medicine, and passed the first occupational standard for diacetyl. CSTE passed position statement 06-OH-01 "Reducing the risk of bronchiolitis obliterans due to diacetyl and other food flavorings" at the June 2006 meeting, and many of the recommendations in this position statement have been acted on.
- The session entitled "Data: reporting and underreporting" led to discussions that put together the April 2009 CSTE occupational health subcommittee sponsored meeting with BLS, OSHA, labor, and academia.
- A session on web publishing as a tool for occupational health data dissemination led to discussions which encouraged development of the state-based occupational health clearinghouse hosted by NIOSH.
- Presentations held at the annual conference supported the work of states, particularly providing guidance on utilizing occupational health indicators profile occupational injuries and illnesses within their state, monitor trends and identify groups at risk.
- A discussion on common issues in occupational and environmental health initiated discussions between occupational and environmental health colleagues on pesticides, birth defects in farm workers, and other chemical exposures leading to collaboration on the pesticide poisoning nationally notifiable condition position statement and support of green chemical policies.

#### 2007 Annual Conference (Atlantic City, NJ)

The Sunday pre-conference workshop provided an opportunity for occupational health and environmental health epidemiologists to come together to discuss opportunities for collaboration on climate change activities as well as future directions in occupational and environmental

health: CDC's goals, the role of states, and coordination of surveillance systems. Participants of the workshop heard from directors within CDC and CDC/NIOSH and were able to interact with them through a panel discussion.

There were 18, breakout sessions and roundtables that addressed the following topics:

- Impacting occupational health and safety in small businesses
- Recent pesticide poisoning surveillance activities
- Improving occupational health and safety for special populations
- Pesticide poisoning intervention and prevention activities
- Evaluating results of occupational health surveillance
- SENSOR-pesticides: coding consistency and general discussion
- Linking occupational health surveillance with workplace interventions
- Occupational lung disease surveillance-work-related asthma
- Occupational lung disease surveillance-silicosis
- Identifying occupational health and safety issues of workers involved in emergency preparedness and response
- Establishing collaborations and partnerships with stakeholders
- Lead-special populations and evaluation (ABLES)
- Identifying novel or emerging occupational health concerns
- Management of lead-exposed adults (ABLES)
- COSS meeting
- Lead surveillance workshop
- NIOSH in the western United States-opportunities for collaboration
- NORA 2-report by committee participants

Some outcomes of the conference included:

- Joint sessions with environmental and occupational health on climate change and CDC: opportunities for collaboration; future directions in occupational and environmental health: CDC's goals, the role of states, and coordination of surveillance systems; and public health consequences of climate change (2008) have led to current development of a heat-related illness climate change indicator with the CSTE environmental epidemiology subcommittee and current discussions of how to incorporate occupational health surveillance findings into the environmental public health tracking network.
- A presentation on NIOSH in the Western United States began a discussion about opportunities for collaboration among states in the west.
- Several 'lessons learned' discussions from states on integrating occupational health into mainstream public health have encouraged occupational health epidemiologists to interact with other program areas within their state health department and integrate many of their surveillance activities into work being done by other colleagues outside of occupational health.

#### 2008 Annual Conference (Denver, CO)

The 2008 Sunday pre-conference workshop focused on occupational activities in the intermountain West and issues and ideas from NIOSH, including speakers that presented on communicating surveillance findings, NIOSH Initiatives with the National Academies Review and NORA Sector Councils, and Occupational Risks in the Mining Industry in the Intermountain West. The occupational health and environmental health groups planned a joint afternoon workshop to discuss the public health consequences of climate change as well as environmental and occupational health issues from hurricane Katrina.

There were 18, breakout sessions and roundtables that addressed the following topics:

- Involving partners in surveillance
- Lead-related health effects and regulatory requirements
- New approaches to occupational health surveillance
- Lead surveillance workshop
- Heat-related illnesses
- Lead exposures among vulnerable populations
- Occupational infectious disease injuries
- Silicosis-expanded occupational health surveillance
- Successes, lessons learned, and challenges
- Occupational respiratory disease-expanded occupational health surveillance
- COSS meeting
- Methods for educating workers
- Pesticide poisoning surveillance
- Hazard surveillance
- Pesticide poisoning surveillance: coding consistency and general discussion

Some outcomes of the conference included:

- Max Lum, the Associate Director for Health Communications at NIOSH, presented on communicating surveillance findings and as a result states and NIOSH are collaborating on a joint success stories publication.
- A discussion of occupational activities in the intermountain west introduced epidemiologists to the NIOSH Western States Office, general surveillance findings from occupational health in the west, and the proposed regional meeting of western states (Western States Occupational Network – WestON).
- Presentations on reducing health disparities has led to a broader discussion of occupational health disparities among states and participation in the CSTE disaster epidemiology subcommittee and collaboration with ASTHO on the upcoming 2011 President’s Challenge on health disparities.

#### 2009 Annual Conference (Buffalo, NY)

The Sunday pre-conference workshop focused on innovative methods for creating behavior change among workers, discuss data needs for labor, and explore the potential of electronic health reporting for industry and occupation surveillance. The afternoon session provided an introduction for participants to the cross-cutting topic of the Environmental Public Health Tracking Network.

There were 16, breakout sessions and roundtables that addressed the following topics:

- Innovative methods in occupational health surveillance
- Pesticide poisoning surveillance
- Achieving “Green Workplaces”: integrating occupational health and environmental chemical policy is key to success
- Emerging issues: communication
- Industrial sector-specific topics
- Occupational lung diseases
- Responder safety and health panel discussion
- Work-related asthma surveillance
- COSS meeting
- Evaluating results of occupational health surveillance programs
- Recent developments in the ABLES program
- Surveillance for occupational fatalities
- Sharing lessons learned from ABLES state programs

- Implementing the next 5 years for the ABLES program

Some outcomes of the conference included:

- A discussion of how multi-year occupational health indicator data can be used led to important further discussions of analysis techniques, denominator data, and limitations of the data. An occupational health workgroup has been formed to continue the development of this work, including producing techniques for multi-year trend analyses.
- The occupational health workshop provided an in-depth discussion of the emergence of electronic health records and implications for occupational injury and disease. This informative discussion led to further state involvement in the electronic medical record discussion, including the occupational health representation on the CSTE surveillance policy subcommittee as well as the internal NIOSH working group on electronic medical records and inclusion of occupational health variables in the medical record.
- CSTE communicates scientific information to policymakers, partners, and members through press releases, newsletters, and reports. CSTE issued a press release on June 19, 2009 regarding the 2009 CSTE lead position statement noting the lowering of the definition of elevated blood lead in adults from 25 to 10ug/dL. The press release was run by 167 news websites including Reuters ([www.cste.org/OHBloodLead.asp](http://www.cste.org/OHBloodLead.asp)).

#### 2010 Annual Conference (Portland, OR)

In 2010, the Sunday pre-conference workshop focused on policy-making in the face of emerging issues. In the first session, invited speakers discussed OSHA N95 guidance for healthcare workers that were issued in anticipation of the H1N1 epidemic, followed by a panel session to highlight how NIOSH, CDC, and OSHA develops policies during crisis situations, the timeliness of those actions, and their mechanism for responding to new research findings during an ongoing outbreak or situation. The discussions included members of professional groups that were affected by such agency decisions, using the H1N1 outbreak and the OSHA N-95 Guidance for Healthcare Workers as the central theme for the session. Finally, participants discussed how BLS, OSHA, and states can work together to build a surveillance system to fill gaps in undercounts of non-fatal work-related injuries and both fatal and non-fatal illnesses. The workshop concluded with a selection of stories from states to highlight how stories from real people can impact policy.

There were 18, breakout sessions and roundtables that addressed the following topics:

- Successes, lessons learned and challenges
- Recent findings in acute pesticide poisoning
- Innovative methods in occupational health surveillance
- SENSOR-pesticides
- Worker safety management programs protect workers and make small businesses money
- Emerging issues in public health response
- Sector-specific topics
- ABLES program reports
- Examining occupational health using state or national surveys
- ABLES state experience in preventing lead overexposures
- Building occupational health capacity and partnership
- Coding exercise and open forum
- Linking surveillance to action: putting data to work
- Work-related asthma: data, resources, and outcomes
- COSS meeting

- CDC's Behavioral Risk Factor Surveillance System (BRFSS) and occupational safety and health: possibilities and problems
- Revising the antiquated OSHA lead standards: time for change

Some outcomes of the conference included:

- A discussion on BRFSS and occupational safety and health informed participants of NIOSH's effort to discussion inclusion of occupational data elements into the general BRFSS survey and inspired states to share results of state BRFSS demonstration projects.

***To support policy discussions, for example, nationally notifiable diseases and conditions, electronic health records, electronic disease reporting, surveillance systems initiatives and CSTE Position Statements.***

Occupational health participation in general surveillance and policy discussions at the annual conference have led to inclusion of non-infectious conditions of occupational health significance on the nationally notifiable conditions listing and have led to further involvement in the national discussion on electronic medical records. There have been over 150 position statements and subsequent policy discussions within the last five years of the CSTE annual conference. CSTE occupational health subcommittee members have submitted 5 position statements during the award funding period and were able to discuss these pertinent national surveillance issues with the entire CSTE membership (approximately 950 members).

6. Reducing the Risk of Bronchiolitis Obliterans Due to Diacetyl and Other Food Flavorings (2006)
7. State-level Occupational Illness and Injury Epidemiology Capacity (2008)
8. Public Health Ascertainment and National Notification for Silicosis (2009)
9. Public Health Reporting and National Notification for Elevated Blood Lead Levels (2009)
10. Public Health Ascertainment and National Notification for Acute pesticide-related illness and injury (2009)

## **Conclusions**

While there are other regional and subject specific meetings dealing with occupational health issues, there is currently no other national meeting for state-based epidemiologists working in the field of occupational health surveillance. Because epidemiologists from all public health arenas are included, the CSTE annual conference remains a superior meeting for occupational health epidemiologists. The multidisciplinary nature of public health warrants the collaboration of epidemiologists across subject areas of expertise.

During the past five annual conferences, the occupational health section has held a pre-conference workshop which was attended by over 50 occupational health epidemiologists annually, most of whom were supported by CSTE to attend. This occupational health meeting has been held annually since 1999, with annual attendance ranging from 34 to over 90 attendees. During the conference, 17 individual breakout sessions, comprising over 25 hours of presentations and discussion, were dedicated to occupational health surveillance every year. Because epidemiologists from all public health arenas are included, the CSTE annual conference remains a superior meeting ground for occupational health epidemiologists, as the multidisciplinary nature of public health warrants the collaboration of epidemiologists across fields.

The occupational health track of the annual conference has increased awareness about occupational health issues; promoted outreach to employers, workers, health care providers and to NIOSH (e.g. HHE requests); encouraged enhanced surveillance or epidemiologic investigation on topics presented at the annual conference; generated ideas that assist in improving and focusing the methodology involved in conducting surveillance; prompted the occurrence of national meetings on occupational health topics; promoted the development of indicators for surveillance; provided guidance for surveillance issues of concern; pushed for state data demonstration projects; provided evidence for the development of a national occupational health publication website; encouraged participation in various CSTE committees and other public health organizations; and NIOSH sponsored ABLES, occupational lung and pesticide poisoning sessions have enabled the exchange of ideas between programs to ensure all states are able to collect data in a similar manner.

The annual conference serves as an important venue for fostering collaboration across public health disciplines. The information shared during the conference often initiates new endeavors and accelerates progress towards new surveillance collaborations. Every annual conference provides an opportunity for NIOSH surveillance program colleagues to engage occupational health state-based surveillance partners in discussions of occupational lung disease, adult blood lead epidemiology and surveillance, and pesticide poisoning surveillance and case coding exercises. As a result of the annual conference being a forum for information sharing, important collaborations and partnerships have been formed. Outcomes from every annual conference have primed occupational health epidemiologists and stakeholders for future collaborations and partnerships.

***Publications***

There are no publications that resulted from the grant.

***Inclusion of Gender and Minority Study Subjects***

This is not applicable to the project.

***Inclusion of Children***

This is not applicable to the project.

***Materials Available for Other Investigators***

There were no materials created by the project.