

**Enhancing State-based Occupational Safety and Health Surveillance, Collaboration,
Education, and Translation to Reduce Worker-Related Injury and Illness**

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List of Terms and Abbreviations

Behavioral Risk Factor Surveillance System (BRFSS)

U.S. Bureau of Labor Statistics (BLS)

Centers for Disease Control and Prevention (CDC)

Council of State and Territorial Epidemiologists (CSTE)

Industry and Occupation (I/O)

National Institute for Occupational Safety and Health (NIOSH)

NIOSH Surveillance Coordination Group (SCG)

Occupational Health (OH)

Occupational Health Indicators (OHIs)

Occupational Health and Safety (OHS)

Occupational Safety and Health Administration (OSHA)

State Based Surveillance (SBS)

Abstract

Work-related injuries and illnesses are an important public health problem in the United States. These injuries and illnesses are largely preventable. State-based surveillance systems that provide information about the magnitude and distribution of work-related injuries and illness and the circumstances in which they occur are essential to developing effective prevention programs. The Council of State and Territorial Epidemiologists (CSTE) conducted this project to address an identified need to increase state capacity to conduct occupational health (OH) surveillance. The aims of this proposal were to: **1.)** In collaboration with the National Institute for Occupational Safety and Health (NIOSH) and the State Based Surveillance (SBS) funded programs, CSTE will develop and maintain Occupational Health Indicator (OHI) methods and data from the SBS funded programs, evaluate their impact, support and advise NIOSH in conducting timely quality assurance activities, and disseminate annual OHI data submitted by participating states; **2.)** Develop and implement communication strategies to disseminate information within the CSTE OH community, to the general public health community, and to occupational health stakeholders; **3.)** Plan, organize, conduct, evaluate, and provide-state travel support for scientific meetings and workshops that build capacity in NIOSH-funded and unfunded state Occupational Safety and Health (OHS) programs; **4.)** Encourage regional and national CSTE Occupational Health Subcommittee member collaborations and facilitate integration of OH into broader public health practice as an intrinsic component of public health.

Key results of this project include:

- Twenty-five OHIs for the years 2016-2019 were collected, evaluated and disseminated. These represent a core set of state level data that assist in the development of public health programs to prevent workplace injuries and illnesses.
- The CSTE website continued to serve as a repository to share state occupational health surveillance information including data, methodological guidance, publications, success stories, links to state websites, tools, and other resources.
- The CSTE Occupational Health Subcommittee convened multiple new workgroups consisting of state and federal occupational health specialists to integrate OH into the COVID-19 response. In addition, occupational health liaisons were identified to represent OH on the CSTE COVID-19 response “Core Group,” consisting of state epidemiologists and other infectious disease epidemiologists.
- Annual working meetings were convened with states and national partners with the goal of increasing capacity to protect worker safety and health. CSTE ensured representation from multiple unfunded states at national meetings/trainings to promote knowledge transfer and improved practices in both NIOSH-funded and unfunded states.

This project enabled states to share pertinent information, build epidemiological and occupational health surveillance expertise, and establish more effective relationships with other state health departments and agencies. Successful approaches to making workplaces safer and healthier begin with having the data necessary to understand the problem, which this project significantly contributed to through the collection of state-based occupational health indicator data and continued collaboration with NIOSH. Successful completion of this project has resulted in enhancements to state epidemiological capacity to improve worker safety and health in the US.

Section 1

C.1. Significant Key Findings

CSTE members continue to collaborate with NIOSH to collect, develop, maintain, and distribute OHI information to states in addition to posting current data on the CSTE OHI webpage (<https://www.cste.org/page/ohindicatorstable>). The CSTE OHI Workgroup also approved changes to OHI #22 (Severe Traumatic Injuries) and will collect this indicator again for data starting in 2019. In 2023, the CSTE OHI Workgroup selected Komi Modji (WI) as the new Occupational Health Indicator Coordinator.

CSTE developed and disseminated audience-specific communication strategies including conceptual guidance, various guidance documents, success stories, and maintained an informal resource repository hosted on the CSTE Occupational Health Subcommittee Website (<https://www.cste.org/members/group.aspx?id=251931>) in addition to regular maintenance of the CSTE OH Subcommittee membership listserv. This activity included: 18 OH Success Stories; approximately 22 NIOSH e-News entries; and at least two webinars each year on topics including silicosis in stone fabrication workers, Massachusetts COVID-19 Community Impact Survey, and SARS CoV-2 Transmission and Implications for Air Quality. CSTE also updated the “Orientation Guide for New Personnel Joining an Existing State Occupational Health Program and New States Initiating a State Occupational Health Program” and the “Revised Management Guidelines for Blood Lead Levels in Adults” (<https://cdn.ymaws.com/www.cste.org/resource/resmgr/occupationalhealth/publications/ManagementGuidelinesforAdult.pdf>).

CSTE facilitated the integration of OH surveillance and prevention into broader public health practice. CSTE produced a variety of COVID-19 guidance documents on a wide range of topics including reporting data on non-healthcare workplace outbreaks of infectious disease; documentation and application of the SARS-CoV-2 Occupational Exposure Matrix; and classification of COVID-19 Work-relatedness and public facing workers. The OH Subcommittee also formed the Occupational Surveillance Methods Workgroup and collaborated with the CSTE Syndromic Surveillance Program to develop the “[Syndromic Surveillance Occupational Health Surveillance: Guidance Document and Examples](https://cdn.ymaws.com/www.cste.org/resource/resmgr/occupationalhealth/publications/OccSyS_WhitePaper_03_08_21.pdf)” (https://cdn.ymaws.com/www.cste.org/resource/resmgr/occupationalhealth/publications/OccSyS_WhitePaper_03_08_21.pdf). This document provides a syndromic surveillance primer and guidance for occupational health professionals to explore this data source for occupational health surveillance in their own states. The CSTE OH Subcommittee hosted a multi-disciplinary spring meeting on Occupational Health and Climate Change Surveillance which included members from the CSTE Climate Health, Equity, Subcommittee as well as representatives from the Centers for Disease Control and Prevention National Center for Environmental Health. As a result of the meeting, a workgroup consisting of CSTE Occupational Health and Environmental Health members was formed to further collaborate on tracking climate related health impacts on workers.

CSTE planned, organized, conducted, evaluated, and provided state travel support for scientific meetings and workshops that built capacity in NIOSH-funded and unfunded state OHS programs. This activity included planning and hosting Spring OH Subcommittee meetings, annual Winter OH Subcommittee Meetings with the NIOSH State Partners' Meetings and the CSTE Occupational Health Subcommittee Meeting, as well as the CSTE Annual Conference. For each CSTE Annual Conference, a planning committee of the CSTE OH Subcommittee and NIOSH organized a full-day Sunday workshop as well as the OH track consisting of breakout, roundtable, and poster sessions for three full days of the CSTE Conference. Due to the COVID-19 pandemic, CSTE planned and organized virtual convenings for the 2021 NIOSH State Partners Meetings and CSTE Occupational Health Subcommittee Meetings in addition to a virtual OH Sunday workshop and track for the 2021 CSTE Annual Conference. The CSTE OH Subcommittee also planned a virtual OH Sunday workshop and hybrid track for the 2022 CSTE Annual Conference.

CSTE promoted state, regional, and national collaboration to increase occupational health surveillance capacity in the U.S., including serving as liaison with the NIOSH Surveillance Coordination Group (SCG) as well as providing program development consultation. This activity included publishing state-based surveillance articles in the monthly NIOSH e-Newsletter and NIOSH science blog; having a representative on the NIOSH Surveillance Coordination Group (SCG) as well as sharing bidirectional updates between NIOSH and states. The BRFSS Workgroup also continued work on a CSTE Brief to add Industry and Occupation (I/O) as a core demographic on the BRFSS questionnaire. The Issue Brief has been revised multiple times throughout the past several years and is currently undergoing the CSTE Briefs review and approval process. Finally, in 2019, CSTE provided a successful onsite Occupational Health Program consultation in Mississippi. Discussions with approximately 25 state health department employees as well as the occupational health advisory board were held on expanding the Mississippi Department of Health occupational health program in preparation for future NIOSH funding opportunities.

C.2. Translation of Findings

This project enabled states to share pertinent information, build epidemiology and occupational health surveillance expertise, and establish more effective relationships among epidemiologists working in state health departments and other agencies. Additionally, successful approaches to making workplaces safer and healthier begin with having the data necessary to understand the problem, which this project significantly contributed to through the collection of state-based occupational health indicator data and continued collaboration with NIOSH. Successful completion of this project has led to enhancements in state epidemiological capacity to improve worker safety and health in the US. Documents developed in this project can be found on the CSTE Occupational Health Subcommittee Publications library (<https://www.cste.org/page/OHPublications>), the CSTE Occupational Health Indicators page (<https://www.cste.org/page/ohi-home>), and the CSTE Occupational Health Success Stories archive (<https://www.cste.org/page/oh-successstories>).

C.3. Outcomes/Impact

C.3.A. Potential Outcomes: By improving the epidemiological and occupational health surveillance capacity of state and local health departments and other agencies, this project potentially reduced occupational injuries and illness throughout the country.

C.3.B. Intermediate Outcomes: CSTE solicited and compiled data from states and national data stewards, compiled select national data to be sent to states, calculated select national data statistics, performed data quality checks, and disseminated data for up to 25 OHIs from up to 25 states for 2017-2019 data. These indicators represent a core set of state-level data for characterization of OH injuries, fatalities, and other factors. These data inform public health programs and/or recommendations to prevent workplace injuries, illnesses, fatalities, and harmful exposures. The CSTE Occupational Health Subcommittee website has been updated with a new layout and content updates to serve as a repository to share state-based occupational health surveillance information including data, methods, publications, links to state websites, tools, and other resources.

CSTE hosted eleven working meetings throughout 2019-2023 to bring together states and national organizations with goal of increasing capacity to protect the health and safety of workers by improving collaboration between state occupational public health programs and national organizations. The Subcommittee developed multiple publications as guidance to increase capacity which can be accessed at <https://www.cste.org/page/OHPublications>.

C.3.C. End Outcomes: The ultimate end outcome is a reduction in occupational injuries and illnesses. However, this would be difficult to directly attribute to the increased occupational health capacity at the state and local level and increased availability of occupational health data as there were multiple changes that occurred in the economy and society over the same time period as this award, including the COVID-19 pandemic.

Section 2

D.1. Scientific Report

Background

Work-related injuries and illnesses are an important public health problem in the United States. These injuries and illnesses are largely preventable. State-based surveillance systems that provide information about the magnitude and distribution of work-related injuries and illness, and the circumstances in which they occur are essential to developing effective prevention programs. CSTE worked to establish effective relationships among state and other health agencies and provide technical assistance to partner organizations like the CDC. CSTE also promoted the effective use of epidemiologic data to guide public health practice and improve health. CSTE accomplished this by supporting the use of effective public health surveillance and good epidemiologic practice through training, capacity development, peer consultation, and policy development.

Specific Aims

From 2019-2023, the specific aims for this project were to: 1) In collaboration with NIOSH and the State Based Surveillance funded programs, CSTE will develop and maintain Occupational Health Indicator methods and data from the SBS funded programs, evaluate their impact, support and advise NIOSH in conducting timely quality assurance activities, and disseminate annual OHI data submitted by participating states; 2) Develop and implement communication strategies to disseminate information within the CSTE OH community, to the general public health community, and to occupational health stakeholders; 3) Plan, organize, conduct, evaluate, and provide-state travel support for scientific meetings and workshops that build capacity in NIOSH-funded and unfunded state OHS programs; 4) Encourage regional and national CSTE Occupational Health Subcommittee member collaborations and facilitate integration of OH into broader public health practice as an intrinsic component of public health.

Methods/Results/Discussion

1. *In collaboration with NIOSH and the State Based Surveillance funded programs, CSTE will develop and maintain Occupational Health Indicator methods and data from the SBS funded programs, evaluate their impact, support and advise NIOSH in conducting timely quality assurance activities, and disseminate annual OHI data submitted by participating states.*

Approximately 25 states contributed OHI data for the majority of the 25 indicators for 2017-2019 data, which were posted on the CSTE OHI webpage. CSTE collaborated with states and national partners including NIOSH, U.S. Bureau of Labor Statistics (BLS) and Occupational Safety and Health Administration (OSHA) to provide national occupational injury and illness data. Each year, state and national data were systematically reviewed by members of the CSTE Occupational Health Surveillance Subcommittee. A method for quality assurance and communication with data providers with support from NIOSH staff was established at the beginning of the project period and maintained throughout the project period.

The “How-to” guide, ‘A Guide for Tracking Occupational Health Conditions and Their Determinants,’ which provides instructions for generating the OHIs, was updated each year with highlighted changes. Since the last award, the OHI Workgroup has decided to no longer require states to submit data for indicator #17 (Occupational Safety and Health Professionals) as a CSTE OHI, however states were still encouraged to continue collecting this data if they are already doing so. How-to instructions were still included in the How-to Guide for new states. The proposed change to exclude private households from the denominator of OHI#18 – “Percentage of establishments and of workers in establishments under OSHA jurisdiction inspected by OSHA”, was approved by the OHI Workgroup and OH Leadership Group. Additionally, data for OHI 20 (low-back disorders) was not collected during the project period.

2. *Develop and disseminate audience-specific communication strategies including conceptual guidance, ‘model’ products, success stories, and an informational repository (website)*

Eighteen Occupational Health Success Stories were posted on the CSTE website. All success stories and related materials are accessible on the CSTE Occupational Health Success Stories page. During this project period, the CSTE OH Subcommittee also developed and distributed a

quarterly newsletter to members and NIOSH partners. The newsletter included recent OH Success Stories, contributions to NIOSH eNews, as well as the NIOSH Clearinghouse in addition to workgroup and meeting announcements. The newsletters can be accessed on the Occupational Health Newsletters page (<https://www.cste.org/page/OHNewsletters>).

Webinar recordings and presentation slides were made available on the CSTE Webinar Library (<https://www.cste.org/page/WebinarLibrary>). In the 2019-2023 budget period, the following webinars were conducted:

- January 2020: Silicosis in Stone Fabrication Workers (72 participants)
- March 2020: Data Visualization Webinar #1: Tableau (50 participants)
- April 2020: Burden of Occupational Morbidity from Selected Causes in the United States (50 attendees)
- August 2021: Massachusetts COVID-19 Community Impact Survey (35 attendees)
- September 2021: Discussion on COVID-19 vaccine outreach to workers and/or employers (45 attendees)
- May 2022: A Discussion of SARS CoV-2 Transmission and Implications for Air Quality (218 attendees)
- November 2022: Outreach and Prevention Strategies to Support COVID-19 Vaccination Among Workers – Lessons Learned and Best Practices (40 Participants)
- November 2022: CSTE COVID-19 Workplace Investigation and Outbreak Definition Discussion (40 Participants)

CSTE also maintained an OHI distribution list in addition to an OH point of contact list (<https://www.cdc.gov/niosh/statosh.html>) in collaboration with NIOSH and states. The CSTE OH Subcommittee email distribution list was regularly used to engage with states through requests for comments on documents and papers, resource dissemination, sharing updated website materials, and meeting announcements.

Dissemination of data and products as well as increased partnerships and outreach evolved based on the individual needs of the OH Subcommittee. In effort to communicate current information to members about worker safety throughout the COVID-19 response, the CSTE Occupational Health Subcommittee served as a forum for peer sharing and resource distribution between NIOSH and health department partners. For example, CSTE hosted a weekly COVID Worker Protection Coordination/Collaboration Call for about 50 participants throughout 2020 and early 2021, which included updates from the NIOSH Worker Safety and Health team on current activities/new initiatives.

During 2020 and early 2021, the Occupational Health Subcommittee also developed a weekly communication COVID resource email for members, which contained new and updated COVID fact sheets produced by NIOSH, toolkits, resource documents, relevant MMWRs, and workers' safety webinars from NIOSH and other partner organizations.

3. *Plan, organize, conduct, evaluate, and provide-state travel support for scientific meetings and workshops that build capacity in NIOSH-funded and unfunded state OHS programs.*

The CSTE Occupational Health Subcommittee supported three meetings each year: the annual winter meeting, a smaller subject-specific meeting in the spring, and a summer meeting in conjunction with the larger CSTE Annual Conference.

CSTE-supported meetings enabled states to implement projects and provide input to NIOSH regarding state-based OH surveillance activities. Subject-specific meetings brought together states, national partners, and other stakeholders to discuss issues of relevance to occupational safety and health. CSTE also played a key role in assisting both NIOSH-funded and unfunded states to attend CSTE OH Subcommittee Meetings, including the CSTE Annual Conference.

Planning for the CSTE Annual Conference began annually in the fall prior to the conference date. The Occupational Health Subcommittee members served on the annual conference occupational health track planning committee in the fall reviewed and scored abstracts and arranged accepted abstracts during monthly conference calls. The Occupational Health track consisted of a variety of breakout, poster, and roundtable sessions for three-full days of the annual conference. Occupational Health Subcommittee members also served on a planning committee for the all-day Sunday pre-conference workshop, which consisted of state and NIOSH representatives who assisted in speaker outreach, development of the agenda and planning networking events for CSTE Occupational Health and Environmental Health members. Due to the COVID-19 pandemic, the 2020 CSTE Annual Conference was cancelled. The 2021 CSTE Annual Conference was held virtually on June 13th. The 2021 Occupational Health Subcommittee hosted an engaging Sunday workshop of 100 attendees that featured a range of topics including working with employers at the state and local levels on COVID-19 related issues, public policies on construction fatalities, worker exposures, and the impact of workplace safety committees. Evaluation results indicated that OH Workshop participants valued the opportunity to hear about local occupational health efforts in addition to the breadth of topics covered. On June 19, 2022, the Occupational Health Subcommittee hosted a virtual Sunday workshop attended by 80 participants in addition to a hybrid track of various Occupational Health roundtables, breakouts, and poster sessions. All hybrid sessions were held in Louisville, KY. The 2022 Sunday workshop featured a spotlight on Kentucky occupational safety and health and included presentations about the Central Appalachian Regional Education Center, black lung in Central Appalachia, the impact of COVID-19 on remote work, as well as diversity, equity, and inclusion in public health. Evaluation results indicated that participants valued the opportunity to learn about Kentucky specific issues in Occupational Health as well as the increased opportunity for networking and discussion. On June 25, 2023, the Occupational Health Subcommittee hosted an in-person Sunday workshop in Salt Lake City, UT, which was attended by 80 participants. The Sunday Workshop featured a spotlight on Utah occupational safety and health including presentations on mental health fitness in the law, data analysis and visualization fundamentals, digital storytelling, and effective communication strategies. The Occupational Health Subcommittee also planned an in-person track consisting of various relevant breakout, roundtable, and poster sessions. A workshop-only evaluation report was administered each year to attendees of the occupational health Sunday workshop. Notably, of

the 30 attendees who completed the 2023 AC workshop evaluation, 87% of respondents either strongly agreed or agreed that they were satisfied with the workshop.

The winter and spring OH Subcommittee Meetings were organized similarly with a small planning committee, led by the two OH Subcommittee co-chairs. While presentation topics varied, all meeting agendas included OH Subcommittee updates on current workgroups, documents, and other activities, as well as identification of next steps for follow-up (for example, CSTE COVID-19 initiatives). The 2019 winter meeting was held in conjunction with the NIOSH State Partners Meeting on December 3, 2019 in Miami, Florida and was attended by 48 participants. Due to the COVID-19 pandemic, CSTE hosted the Occupational Health Subcommittee Winter Meeting in conjunction with the NIOSH Partners' Grantee Meeting in February and December 2021 virtually. In order to reach a greater number of OH Subcommittee members as well as engage with NIOSH and other partners, the CSTE OH Subcommittee livestreamed the 2022 Spring meeting which was held April 21-22 in Cincinnati, Ohio, the 2022 Winter meeting which was held December 6-8 in Atlanta, GA, as well as the 2023 Spring meeting which was held April 13-14 in Chicago, IL. The CSTE Occupational Health Subcommittee will continue to provide a virtual attendance option for all future meetings.

The 2022 CSTE OH Winter Meeting was held in conjunction with the NIOSH Partners' Grantee Meeting and half day Worker's Compensation Meeting at the CSTE National Office in Atlanta, GA. Notable meeting topics included: post COVID labor force changes, farmer health and safety, as well as updates from NIOSH on the National Violent Death Reporting System Public Safety Officer Suicide Module and communicating the value of collecting I/O data. The 2022 OH Winter Meeting was well attended with 46 attendees in-person and 53 virtually. The in-person meeting attendees consisted of 25 state representatives, 15 NIOSH attendees, and six attendees from other institutions including universities and injury prevention and research centers. Meeting evaluations were conducted on an ongoing, as-needed basis, to inform agenda planning for future meetings and follow-up actions.

4. *Encourage regional and national CSTE Occupational Health Subcommittee member collaborations and facilitate integration of OH into broader public health practice as an intrinsic component of public health.*

The OH Subcommittee continued to use their collaborative relationship to help NIOSH take initial steps toward implementation of Recommendation B in the 2018 National Academies report, *"A Smarter National Surveillance System for Occupational Safety and Health in the 21st Century."* In Spring 2022, the OH subcommittee hosted a meeting focused on creating a model for a periodic occupational illness and disease surveillance report. The draft report is currently under review.

In response to the COVID-19 Pandemic, the CSTE OH Subcommittee produced seven resource documents for state health departments. *The complete listing of COVID-19-related resource documents is below.*

- **2020:** the CSTE Occupational Health Subcommittee collaborated with NIOSH to develop *"Guidance for Collecting Industry and Occupation Data for COVID-19 Cases"* to assist state and local health departments to collect employment information about COVID-19

cases

(https://cdn.ymaws.com/www.cste.org/resource/resmgr/occupationalhealth/publications/Guidance_collecting_io_covid.pdf).

- **2020:** the CSTE Occupational Health Subcommittee developed an appendix, “Epidemiological Classification of Work-Relatedness” to the CSTE Position Statement: *Update to the standardized surveillance case definition and national notification for 2019 novel Coronavirus disease (COVID-19)* (<https://www.cste.org/page/OHPublications>).
- **2021:** the CSTE Occupational Health Subcommittee developed “Occupational Health Subcommittee Epidemiological Classification of COVID-19 Work-Relatedness and Documentation of Public-Facing Occupations” which is a supplement to the surveillance case definition for work-related COVID-19 (<https://www.cste.org/page/OHPublications>).
- **2021:** the CSTE Occupational Health Subcommittee conducted an assessment of CSTE OH members as well as State Epidemiologists to better understand what employment data on COVID-19 cases were available at the state level and how that information was being used. The results of the assessment and implications were discussed at an OH roundtable during the 2021 CSTE Annual Conference.
(https://cdn.ymaws.com/www.cste.org/resource/resmgr/occupationalhealth/publications/OH_COVID_IO_Assessment.pdf).
- **2021:** the CSTE Occupational Health Subcommittee Workgroup on Essential Workers developed: “*Characterizing the risk of exposure to SARS-CoV-2 among non-health care occupations based on three workplace risk factors: public facing work, working indoors, and working in close physical proximity to others.*” The document provided a systematic approach to characterizing workplace exposure to SARS-Cov-2 in hundreds of non-health care occupations using metrics from O*NET, a national database with information on occupational characteristics, together with input from experts in occupational safety and health (<https://resources.cste.org/soem-documents/>).
- **2022:** the CSTE Occupational Health Subcommittee Workgroup on Essential Workers developed: “SARS-CoV-2 Occupational Exposure Matrix-Industry Extension (SOEM-IE): An approach to using occupational information to identify industries at high risk of exposure to SARS-CoV-2.” This document expanded previous work in 2021 (*see above*) and used information from the SOEM coupled with U.S. workforce data from the 2015-2019 Current Population Survey to estimate the average annual number and percent of workers employed in occupations potentially at high risk of workplace exposure to SARS-Co-V-2 by industry (<https://resources.cste.org/SARS-CoV-2-Occupational-Exposure-Matrix-Industry-Extension/>).
- **2023:** the CSTE Occupational Health Subcommittee developed: Classifying and reporting data on non-healthcare workplace outbreaks of infectious disease: Findings and recommendations based on review of public health agency data on outbreaks of COVID-19. Members of the CSTE Occupational Health Subcommittee, along with members of CSTE’s Surveillance/Informatics and Infectious Disease Programs,

reviewed outbreak reports from a sample of states and proposed recommendations for a standardized approach for reporting workplace outbreaks including COVID-19 and other highly transmissible communicable diseases (<https://www.cste.org/page/OHPublications>).

In addition to the COVID-19 response activities listed above, a CSTE Occupational Health Subcommittee representative provided pre-decisional feedback on ongoing pandemic response strategy and policy discussions on the CDC/CSTE COVID-19 Core Group Call. The CSTE OH Subcommittee representative also regularly provided updates back to Occupational Health members. The CSTE Core Group consisted of a small, advisory group of State & Deputy State Epidemiologists and CSTE Executive Board members which were convened to provide rapid feedback on overall COVID-19 response strategies and pre-decisional guidance as well as considerations for development of documents, tools & resources. CSTE Occupational Health members made presentations to the state epidemiologists as well as infectious disease epidemiologists, on the CSTE Core Group calls about SARS CoV-2 spread, point of care testing, aerosol transmission of SARS CoV-2, and approaches to collect and analyze occupation/industry data.

In 2022, the OH Subcommittee also provided comments in support of OSHA's proposed rule to update and amend *"Occupational Injury and Illness Recording Requirements to 'Improve Tracking of Workplace Injuries and Illness.'"*

Conclusion

The overall goal of the CSTE Occupational Health Surveillance Subcommittee was to promote state, regional, and nationwide collaboration to increase state occupational health surveillance capacity. CSTE served as a vehicle for state input to NIOSH regarding future directions for state-based surveillance. The CSTE OH Subcommittee provided recommendations and input to NIOSH on issues related to occupational health including goals for occupational health surveillance, the importance of state data, and it funded support as well as guidelines for states occupational health surveillance programs. Throughout the project period, the Building Capacity for State-Based Occupational Health Surveillance project has successfully promoted state, regional, and nationwide collaboration to increase state occupational health surveillance capacity.

This project has provided an opportunity for states to share pertinent information, build epidemiology and occupational health surveillance expertise, and establish more effective relationships among epidemiologists working in states and other agencies in a supportive environment. Successful approaches to making workplaces safer and healthier begin with having the data and tools both to understand and address the problem. This project significantly contributed to this goal through multiple publications, meetings, educational webinars to facilitate state-based activity, as well as collaboration.

E. Inclusion of Children

Not applicable

F. Materials available for other investigators

See publications for materials available to other investigators.

G. Inclusion Enrollment Report

Not applicable

Publications

1. The Council of State and Territorial Epidemiologists: [2023] Orientation Guide for New Personnel Joining an Existing State Occupational Health Program and New States Initiating a State Occupational Health Program.
https://cdn.ymaws.com/www.cste.org/resource/resmgr/Orientation_Guide_04_23_4_.pdf.
2. The Council of State and Territorial Epidemiologists: [2023] [Occupational Health Indicator Data: Quality Assurance Recommendations](https://cdn.ymaws.com/www.cste.org/resource/resmgr/publications/OHI_data_QA_reminders_FINAL.pdf).
https://cdn.ymaws.com/www.cste.org/resource/resmgr/publications/OHI_data_QA_reminders_FINAL.pdf.
3. The Council of State and Territorial Epidemiologists: [2023] Occupational Health Indicators: A Guide for Tracking Occupational Health Conditions and Their Determinants.
https://cdn.ymaws.com/www.cste.org/resource/resmgr/publications/OHI_GuidanceManual_2019_FINAL.pdf.
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5. The Council of State and Territorial Epidemiologists: [2022] *SARS-CoV-2 Occupational Exposure Matrix-Industry Extension (SOEM-IE): An approach to using occupational information to identify industries at high risk of exposure to SARS-CoV-2*.
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6. The Council of State and Territorial Epidemiologists: [2021] Revised Management Guidelines for Blood Lead Levels in Adults.
<https://cdn.ymaws.com/www.cste.org/resource/resmgr/occupationalhealth/publications/ManagementGuidelinesforAdult.pdf>.
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8. The Council of State and Territorial Epidemiologists: [2021] [Characterizing the risk of exposure to SARS-CoV-2 among non-health care occupations based on three workplace risk factors: public facing work, working indoors, and working in close physical proximity to others](#)

9. The Council of State and Territorial Epidemiologists: [2021] Syndromic Surveillance for Occupational Health Surveillance: Guidance Document and Examples.
https://cdn.ymaws.com/www.cste.org/resource/resmgr/occupationalhealth/publications/OccSyS_WhitePaper_03_08_21.pdf.
10. The Council of State and Territorial Epidemiologists: [2020] Recommended Interim Guidance for Collecting Employment Information about COVID-19 Cases.
https://cdn.ymaws.com/www.cste.org/resource/resmgr/occupationalhealth/publications/Guidance_collecting_io_covid.pdf
11. The Council of State and Territorial Epidemiologists: [2020] Occupational Health Subcommittee Assessment: Collection of Industry/Employment Data on COVID-19 Cases.
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12. The Council of State and Territorial Epidemiologists: [2019] Operating Guidelines: Occupational Health Surveillance Subcommittee of the Council of State and Territorial Epidemiologists August 2, 2011.
https://cdn.ymaws.com/www.cste.org/resource/resmgr/occupationalhealth/CSTE_OHS_Subcommittee_Operat.pdf.