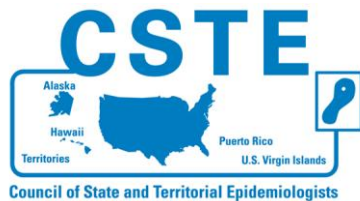




CDC / CSTE APPLIED EPIDEMIOLOGY FELLOWSHIP *HANDBOOK*

CLASS VIII
2010-2012



ASPH

**ASSOCIATION OF
SCHOOLS OF
PUBLIC HEALTH**

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Council of State and Territorial Epidemiologists

The Council of State and Territorial Epidemiologists (CSTE) is a professional association of public health epidemiologists in states and territories working together 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 the Association of State and Territorial Health Officials (ASTHO) and federal public health agencies such as the Centers for Disease Control and Prevention (CDC). CSTE has more than 1000 members with surveillance and epidemiology expertise in a broad range of areas including: communicable diseases, immunizations, environmental health, chronic diseases, occupational health, injury prevention and control and maternal and child health.

Epidemiologists working in public health agencies are responsible for monitoring trends in health and health problems, and devising prevention programs that enable the entire community to be healthy. Public health assessment includes surveillance, epidemiologic studies, program evaluation, and performance measurement. Surveillance is the foundation for developing a public health response to any disease threat – infectious, chronic, environmental, and occupational or injury. Surveillance is useful in (1) determining which segments of the population are at highest risk; (2) identifying changes in disease incidence rates; (3) determining modes of transmission; and (4) planning and evaluating disease prevention and control programs.

The national organization is governed by a ten-member Executive Committee, which includes four officers, three program chairs, and three members-at-large. The program chairs are specialty epidemiologists in the areas of chronic diseases, environmental health, occupational health, injury prevention and control, and infectious diseases. The CSTE Executive Committee conducts quarterly two-day meetings to provide a forum in which federal and state programs can collaborate on topics of mutual interest.

Terms of Agreement

Applied Epidemiology Fellows will perform services for a 2 year term beginning on the date that the fellow reports to his/her designated host health agency. After 12 months CSTE will evaluate the appointment based on fellow and mentor performance. After a favorable evaluation, the CSTE National Office will recommend the renewal of a contract for the remaining 12 months of the fellowship based on the availability of federal funds. In addition, each fellow will attend and be compensated for the orientation session in Atlanta, GA, August 30-September 3, 2010.

All fellows agree to initiate their assignments at the designated host health agency on or before August 23, 2010. All fellows should notify CSTE as soon as possible should they be unable to report to the host health agency by August 23, 2010. Appointments beginning after August 23, 2010 require approval from CSTE.

Mentor and Host Health Agency

Each Applied Epidemiology Fellow is assigned to a designated host health agency and mentors. Host health agencies are CDC and CSTE approved, with a demonstrated capacity to provide an Applied Epidemiology Fellow with technical training, research opportunities and practical experience in the application of epidemiologic methods.

The mentors will oversee the training, research and field activities of the fellow, ensure that the fellow is familiar with relevant techniques in a given specialty, and encourage the overall professional development of the fellow. Host health agencies and mentors are also strongly encouraged to provide financial support and opportunities for the fellow to participate in other public health activities that will expand the fellow's scope and depth of epidemiologic knowledge and/or expand his/her job-related capabilities. Should Fellows be required to participate in or attend meetings on behalf of the host health agency, the agency should assume responsibility for any expenses incurred by the Fellow. This includes travel expenses and costs associated with developing materials, etc. Fellows are expected to be integrated into the host site and treated like an entry level permanent employee. If employee programs are offered to regular permanent employees, host sites are expected to provide comparable programs and financial support for the fellow.

Applied Epidemiology Core Competencies

Epidemiologic methods

- Design surveillance systems to assess health problems.
- Evaluate surveillance systems and know the limitations of surveillance data. First-year fellows are required to submit an abstract on their evaluation projects for the CSTE Annual Conference and the surveillance system evaluation should be among the first activities the fellow undertakes.
- Role in bioterrorism/emergency preparedness and response. Fellows should be prepared to play a functional role in BT/ER response for their host agency and are encouraged to participate in related training, tabletop exercises etc.
- Interpret surveillance data*.

- Design an epidemiologic study to address a health problem.
- Understand the basic types of study design and the advantages and limitations of each type*.
- Design a questionnaire or other data collection tool to address a health problem.
- Collect health data from appropriate sources (e.g., case interviews, medical records, vital statistics records, laboratory reports, or pathology reports).
- Create a database for a health data set.
- Use statistical software to analyze and characterize epidemiologic data.
- Interpret findings from epidemiologic studies, including recognition of the limitations of the data and potential sources of bias and/or confounding.
- Recommend control measures, prevention programs, or other public health interventions based on epidemiologic findings.

Communication

- Write a field investigation report resulting from participation in an infectious disease or other approved outbreak investigation of either an acute disease outbreak or a time sensitive investigation. Fellows should experience participating in and observing an investigation performed in a charged environment. It is understood that some fellowship assignments such as those in Chronic Disease, Maternal and Child Health, etc. will require that the mentor arrange for a temporary detail to allow the fellow to participate in such an investigation.
- Write a surveillance report.
- Understand the basic process for preparing a manuscript for publication*.
- Make an oral presentation using appropriate media.
- Present data graphically and know how to use graphic software.
- Understand the basics of health-risk communication and communicate epidemiologic findings in a manner easily understood by lay audiences.
- Master's-level fellows: present a poster at a national or regional meeting, publish a technical report, or prepare a manuscript for publication in a peer-reviewed journal.
- Doctoral-level fellows: prepare a manuscript for publication in a peer-reviewed journal.

Public Health Practice, Policy, and Legal Issues

- Have a basic understanding of public health law*.
- Complete CDC's online Public Health Law 101 available at: <http://www2a.cdc.gov/phlp/phl101/>
- Understand the Health Insurance Portability and Accountability Act of 1996 (HIPAA) and recently implemented privacy and information security amendments*.
- Distinguish between public health research and public health practice*.
- Understand policies for the protection of human subjects in research and the role of an Institutional Review Board (IRB)*.
- Know the essential public health functions*.

- Understand the roles of local, state, and federal public health agencies*.
- Appreciate the diversity of how epidemiology is used in different program areas*.
- Effectively negotiate cultural sensitivity issues*.

* indicates Core Competencies addressed in the fellowship orientation curriculum.

Plan of Action

Upon arrival at the host health agency, the fellow and mentor will develop a mutually agreed upon plan outlining the course of study, training, and research to be taken during the fellowship assignment to achieve designated core competencies. By the end of the third month of the fellowship, the fellow and mentors should formalize a “Plan of Action” that will outline how the fellow will complete the major required core activities and address competencies.

The purpose of the Plan of Action is to provide a written understanding between the fellow and his/her mentor. It serves as a guideline and agreement about the expectations and opportunities of the fellowship experience. The Plan of Action is also a tool to monitor progress during the fellowship.

Fellows should submit the Plan of Action, with mentor signatures, to the Fellowship Program Coordinator no later than ninety days after fellowship start date. The Plan of Action will be reviewed and approved by CSTE. The Fellowship Program Coordinator will further discuss the plan with the fellow and the on-site supervisor *if necessary*.

The following should be identified:

- Surveillance activity in which the fellow will participate.
- Surveillance system to be evaluated. Because fellows are encouraged to present evaluation projects at the CSTE Annual Conference, the surveillance system evaluation should be among the first activities the fellow undertakes.
- Role in bioterrorism preparedness and response.
- Major project (including timeline for completion).
- National, state or regional meeting(s) to be attended (in addition to the annual CSTE meetings).

Progress Reports and Biannual Evaluations

Fellows agree to submit **quarterly progress reports**. The quarterly progress reports will be submitted to the Fellowship Program Coordinator every three months. The progress reports describe activities during the reporting period. Reports also contain an overview of activities and accomplishments to date according to the original Plan of Action, as well as any changes in the plan. Copies of any publications, abstracts, or posters completed during that quarter should be attached. Items listed on the quarterly progress report form must be addressed; additional information is welcome. **Quarterly progress reports should be mailed to the Fellowship Program Administrator with original signatures.**

Additionally, fellows are expected to work with their mentor to complete a **biannual evaluation** that evaluates the fellow's performance and outlines progress toward meeting the required core activities. Fellow signature and mentor review, comments, and signature are required. Biannual evaluation forms should be mailed to the Fellowship Program Administrator on or before the dates listed below with the corresponding Quarterly Progress Report. Please use the evaluation of your performance as a tool to strengthen and expand your epidemiology skills.

EXAMPLE Quarterly Progress Report Schedule:

June 1, 2010: Start Date
September 1, 2010: Plan of Action Due
December 1, 2010: Quarterly Progress Report and 6-month Evaluation Due
March 1, 2011: Quarterly Progress Report Due
June 1, 2011: Quarterly Progress Report and 1 year Evaluation Due
September 1, 2011: Quarterly Progress Report Due
December 1, 2011: Quarterly Progress Report and 18-month Evaluation Due
March 1, 2012: Quarterly Progress Report Due
Before June 1, 2012: Final Report and Final Evaluation Due

Fellows are advised to keep signed copies of all paperwork in case of lost mail.

CSTE reserves the right to suspend the fellow's stipend in the event of excessive delay of progress report or evaluation submission.

Final Report

Fellows and their supervisors will be required to submit a final report during the last month of the fellowship. The final report should indicate that the fellow has completed all of the required activities. In addition, the report should indicate the following:

- A brief summary of how each of the required activities was completed.
- The fellow's perspective on whether or not the fellowship achieved its training objectives.
- An evaluation of the fellow by his/her supervisor(s).
- Ways that the fellowship could be improved (comments from both fellow and supervisor).
- The fellow's future career plans.
- Contact information for the fellow after completion of the fellowship.

Final Reports should be submitted to the Fellowship Program Administrator no later than two-weeks before completion of the fellowship.

Career Progression

CSTE intends to monitor the outcome of the Applied Epidemiology Fellowship program through regular contact with each program graduate. Fellow alumni should expect CSTE staff to contact them annually for information about their employment status, career goals, and other pertinent information. Please inform CSTE of any changes in your contact information.

Certification

A certificate will be awarded to a fellow at the end of the two-year fellowship, provided they demonstrate the following:

- Complete all of the required core activities.
- Submit their final report to CSTE (both fellow and mentor).
- Perform satisfactorily during the fellowship according to the supervisor.

The certificates will be issued and provided by CSTE, but will be cosigned by CSTE and mentors.

E-mail Communications

All fellows must be accessible via e-mail during their assignment. The host health agency will provide each fellow with access to a computer and an individual e-mail address. Fellows should forward their e-mail address to CSTE as soon as possible.

Fellowship Stipend

CSTE agrees to compensate each fellow in the form of a stipend, the amount of which is listed on the fellowship appointment agreement. Stipends follow U.S. Health and Human Services Public Health Service (USPHS) guidelines and the government's GS-rating scale. Stipends will not be considered salaries and, therefore, no taxes will be withheld from them. Each fellow is responsible for ensuring that appropriate taxes are paid on the stipend received.

Payment will be distributed to the fellow on a biweekly basis from CSTE. The stipend payments will be managed by CSTE and mailed to the fellow's personal mailing address. CSTE encourages fellows to use direct deposit for receipt of their stipend.

Relocation Stipend

CSTE is required to follow OMB Circular A-122.42 regarding relocation costs. To be eligible for relocation expenses, a fellow must meet one of the following:

- 1) The costs of transportation of the employee, members of his/her immediate family and his/her household and personal effects to the new location.
- (2) The costs of finding a new home, such as advance trips by employees and spouses to locate living quarters and temporary lodging during the transition period, up to maximum period of 30 days, including advance trip time.

The specifics of the relocation circular are included in the Appendix.

Health Insurance

In addition to the stipend described above, CSTE will help defray the costs for individual health insurance for each fellow up to \$320/month (\$3,840/year). These funds are to be used only for basic health insurance (vision is not covered). In extenuating circumstances, CSTE may supplement plans that exceed the \$3,840 limit. However, there is no guarantee that additional funds will be secured each year. Each fellow is responsible for identifying a health plan in their area in which they wish to enroll and is encouraged to pursue the best coverage available within the annual health insurance allowance. Individual health insurance must be in place by the first day the fellow reports to the host health agency. CSTE will provide reimbursement to the fellow on a monthly or quarterly basis for health insurance costs, beginning on the first day that the fellow reports to the host agency and continuing through the end of the month in which the fellow terminates the program.

It is anticipated that fellows will receive significantly better health coverage by choosing a plan that operates locally.

CSTE Annual Conference and Additional Conference Information

Fellows are required to attend the CSTE Annual Conference each year of their fellowship (2011 and 2012). Fellows are **not** expected to use their professional development allowance to attend the conference. The 2011 Annual Conference is scheduled for Pittsburg, Pennsylvania, June 12-16, 2011. The Fellowship Program Administrator will contact each fellow to make travel arrangements.

Fellows are expected to submit an abstract for the CSTE Annual Conference, and they are strongly encouraged to submit abstracts to additional professional conferences they plan to attend. 1st year fellows will submit an abstract for the CSTE Annual Conference for the evaluation of a surveillance system project. 2nd year fellows can submit an abstract for any other project.

Professional Development Allowance

As a benefit of the fellowship, CSTE has allotted \$970 per year to defray professional development expenses. These funds are to be used for the purpose of travel to meetings or conferences, attending short-term training programs, purchasing of Fellowship-work related books, and attendance of classes intended to aid in Fellowship-work related projects. An example of an inappropriate use of funds is to pay for poster expenses, computer or A/V hardware, trainings not related to epidemiology/biostatistics, commuting or work related travel expenses, travel to local and in-state meetings, and other general administrative expenses. The host state agency should be responsible for covering these expenses.

The professional development funds must be used for activities that fall within the fellow's Plan of Action. CSTE also strongly encourages host health agencies to provide funds for fellow travel and training. CSTE communicates with all primary and secondary mentors, encouraging the health department to share the responsibility of supporting fellows to attend conferences, meetings, and reimbursement for in-state travel.

Professional development funds for year 1 must be used by the 1 year anniversary of the start date. Professional development funds for year 2 must be used between the 1 year mark and at least 3 months before the last day of the fellow's assignment. The only exceptions to this rule are: if a fellow has approval from his/her mentor to attend and present work during his/her fellowship (i.e. poster session or other presentation) at a

meeting scheduled within 3 months of the fellowship completion date and has approval from the CSTE Executive Director in an extraordinary circumstance.

Professional Development Funds Guidelines:

- Travel/purchases using year 1 funding must be completed by the 1 year anniversary of the start date
- Travel/purchases using year 2 funding must be completed after the 1 year anniversary and at least 3 months before the end of the Fellowship.
- Requests must be made to the CSTE Fellowship Program Administrator
- Sufficient funds must be available in the fellow's professional development allowance account
- Professional development funds cannot be used for international travel.
- CDC sponsored conferences for the program area in which the fellow works must take precedence over any other conference for the use of the professional development funds. For Example: Infectious Disease fellows must use their professional development monies to travel to the ICEID Conference.
 - CSTE works closely with partners at CDC to secure scholarships for fellows to travel to these conferences, but there is no guarantee that this money will be available every year to supplement fellow attendance at these meetings. Fellows will be notified as early as possible if travel scholarships are to be awarded.
- Service fees for travel made through American Express will **NOT** be deducted from your professional development funds
- When traveling, Fellows must follow CSTE Sponsored Travel policies

Travel and Expense Reimbursement Information

- **CSTE sponsored travel requires preauthorization from CSTE.** Please contact the Fellowship Program Administrator for authorization.
- Expense reimbursement forms are used for all eligible travel and training courses.
- Expense reimbursement forms must be completed and submitted to CSTE within 30 days of expense occurrence by mail or fax. **Email reimbursement forms are not accepted.**
- For travel, the expense reimbursement form must itemize per diem, lodging, and other costs by date of travel, and be signed by the fellow. **Original receipts for any claimed expense of \$25 or more must accompany the form, along with flight itinerary/boarding passes.**
- All air travel should be arranged through American Express Travel by calling (800) 872-9954 (Gail Harris), and identifying yourself as a CSTE Applied Epidemiology Fellow. Flights arranged by American Express will be billed directly to CSTE; the

fellow must record the cost in the “Direct CSTE Charges” column of the expense reimbursement form.

- If approved, CSTE will support transportation, registration, lodging, and per diem for the meeting up to the maximum dollar remaining in the fellow’s professional development allowance account. CSTE assumes no liability for the fellow while he/she attends any meeting after the completion of the fellowship.

All CSTE fellows are expected to follow CSTE’s travel policy while traveling.

Withdrawal/Termination

CSTE reserves the right to terminate the fellowship assignment agreement upon authorization by the CSTE Fellowship Advisory Committee in response to unacceptable conduct, disciplinary problems, or performance-based actions by the fellow. A written request, accompanied by documentation sufficient to justify termination action, must be submitted to CSTE for review and consideration by the Advisory Committee. CSTE may also terminate this agreement if the fellow fails to comply with any of the terms specified in this agreement. Stipend and other allowances will be disbursed through the last day worked by the fellow.

In the event the fellow wishes to voluntarily withdraw from the assignment at any time, he or she must provide 30 days notice and written notification to both CSTE and the host health agency. CSTE may terminate the fellowship assignment in the event that grant support cannot be obtained and provided. CSTE will inform the parties involved and provide 30 days notice.

Liability Disclaimer

Neither CDC, CSTE, ASPH, the host health agency, nor persons acting on their behalf will be responsible for:

Any alleged or actual liability, cost or expense incurred as a result of personal injury to or death of persons, including the fellow, or damage to or destruction of property, or for any other loss, or damage, or injury of any kind whatsoever; except where such death, injury, loss, or damage is the result of willful negligence or intentional misconduct of an officer, agent, or employee of CSTE, CDC, ASPH, or the host health agency.

Any claims, losses, or expenses or damages, including, but not limited to, bodily injury, death, or property damage caused by negligence or misconduct of the fellow.

Security Clearance Procedures

All fellows must comply with the security, safety, and personnel requirements established by their host health agency. Fellows should contact their host mentor and/or facilitator to discuss these procedures, as this may affect their start date with the host health agency.

All fellows must be trained in HIPAA health information security before accessing patient data. It is the fellows responsibility to ask the host health agency for this training before working with any health data that is linked to identifying personal information.

Publication Acknowledgement

Copies of all papers published as a result of the fellow's appointment (including those published after the assignment has ended) must be sent to the Fellowship Program Administrator at CSTE. All published reports, journal articles, or professional presentations that rely on the work conducted during participation in the fellowship should carry an acknowledgement such as the following:

"This study/report was supported in part by an appointment to the Applied Epidemiology Fellowship Program administered by the Council of State and Territorial Epidemiologists (CSTE) and funded by the Centers for Disease Control and Prevention (CDC) Cooperative Agreement Number 5U38HM000414."

Ethical Standards and Behavior

Fellows are expected to conduct research and day-to-day epidemiologic investigations, data analysis, and information synthesis according to the highest scientific and ethical standards. Fellows must comply with all applicable laws, regulations, and policies regarding privacy protection, human research subjects, use of laboratory animals (if applicable), and safety. Fellows are to follow all rules and regulations that apply to host health agency personnel (safety, breaks, security access, etc.).

Employment at Host Health Agency During the Fellowship

Fellows are expected to complete the entire two-year fellowship to which they have been appointed. In accepting an Applied Epidemiology Fellow, the host health agency and CSTE agree to support the unique educational and training opportunities afforded to a fellow by the program. Applied Epidemiology Fellows will perform services beginning on the date that the fellow reports to his/her designated host health agency. After 12 months, CSTE will evaluate the appointment based on the availability of federal funds, satisfactory progress of the Fellow and mentor performance. After a favorable evaluation, the CSTE National Office will recommend the renewal of a contract for the remaining 12 months of the fellowship. Host health agencies may extend an offer to a fellow for employment only after all the competencies have been met for the fellowship. CSTE expects all fellows to complete requisite activities and competencies. If an opportunity for employment arises before the fellow has completed the full two years, CSTE would consent to the fellow's employment if all required activities have been achieved or an agreement has been made satisfy the competency requirements.

Grievance Process

Fellow Grievance: In the event that a fellow has a grievance with the conduct or quality of the program, an official complaint must be submitted in writing to the Fellowship Program Administrator at CSTE. It is expected that the fellow will have discussed the issue with his or her mentor and health agency director prior to submitting any written complaint. CSTE will attempt to facilitate resolution of the issue within two weeks of receipt of the official complaint. If no resolution is made, the Advisory Committee will take up the issue.

Host Health Agency Grievance: If the host health agency has concerns about the actions or attitude of the designated fellow, or is unable to meet training requirements, written communication should be sent directly to CSTE, for mediation within two weeks. If no solution is reached within that period, the Advisory Committee will then be invited to assist. All communications of this nature are to be filed in writing at CSTE and identified as a formal grievance. The parties involved will keep all communications in confidence.

Leave

The fellow agrees to report to the worksite in accordance with the regular workweek schedule, holiday schedule, and inclement weather policies as established by the host health agency. Fellows are not to be away from their assignment for extended periods of time. CSTE reserves the right to suspend the stipend payment accordingly if it deems necessary, as well as terminate this agreement in the event of excessive absenteeism on the part of the fellow.

Fellows are to be granted the same amount of vacation and/or sick leave that a first year health department employee receives. Fellows are not required to account to CSTE for their time off. However, fellows must receive approval from his/her mentor for any absences. Fellows must comply with a mentor's request for time accountability.

In compliance with the Family and Medical Leave Act of 1993, up to twelve weeks leave may be offered to any Fellow who needs to take an extended leave of absence due to injury, pregnancy, or illness. Upon request from the host agency, the fellow will be offered six (6) weeks of time off where the Fellow will be receiving 60% of the full stipend amount. If host agency's policy requires, the fellow may be required to utilize vacation and sick time accrued from time worked at the host agency before receiving the reduced stipend. If further leave time is required after the six weeks reduced stipend and host agency's vacation and sick time have been used, the Fellow will not receive any portion of the stipend for the remainder of the leave. The other provisions of the Fellowship will not be affected by the leave of absence (e.g. health insurance reimbursement support, professional development, etc). This position is consistent with the Family and Medical Leave Act followed in states where fellows are assigned and integrated into the host site environment and expected to follow the administrative guidelines and leave policies.

Income Taxes

The Internal Revenue Service (IRS) has determined that individuals who participate in the Applied Epidemiology Fellowship Program are considered "Fellows" (versus employees) for income tax purposes, due to the specific characteristics of the assignment. Therefore, CSTE assumes no responsibility for federal, state, and local tax withholding from stipend payments. Although subject to some of the same policies and procedures, Applied Epidemiology Fellows are not considered employees of CSTE, CDC, ASPH, or the host health agency. **CSTE assumes no tax liability and will not**

submit a Form 1099 at the end of the year during the fellow's training, but will provide a summary of earnings for each calendar year. Fellows should seek individual tax advice as necessary from qualified professionals.

The Internal Revenue Code, Section 117, applies to the tax treatment of all scholarships and fellowships. Under that section, non-degree candidates are required to report, as gross income, all stipends and any monies paid on their behalf for course tuition and fees required for attendance. CSTE stipends are not considered salaries.

Important Contacts

CSTE

2872 Woodcock Boulevard, Suite 303

Atlanta, GA 30341-4015

Phone: (770) 458-3811

Fax: (770) 458-8516

www.cste.org

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Executive Director

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MarySue Shulin

Business Manager

mshulin@cste.org

American Express Travel

Primary contact: Gail Harris

Phone: (800) 872-9954

Mentoring a CDC/CSTE Applied Epidemiology Fellow

The goal of the Applied Epidemiology Fellowship program is to attract and prepare public health epidemiologists for careers with state and local health departments. The two-year program recruits and trains qualified candidates to support public health initiatives and provide opportunities for neophyte epidemiologists to expand their skills to a level where they function as competent epidemiologists with little or no supervision. Upon completion of the fellowship, graduates will be prepared to conduct day-to-day epidemiological activities and research on issues that affect public health.

The Applied Epidemiology Fellowship is designed to accomplish one of CDC's defined prevention strategy goals of "strengthening local, state, and federal public health infrastructures to support surveillance and implement prevention and control programs." Further, Healthy People 2010 workforce objectives are being met in areas of:

- ❑ Incorporation of specific competencies in the essential public health services into the personnel systems
- ❑ Increase proportion of Tribal, State, and Local public health agencies that provide or assure comprehensive epidemiology services to support essential public health services

The Role of the Mentor

The mentor is expected to fulfill the responsibilities outlined here. Although fellows may possess sophisticated skills, they require guidance and direction from their mentors. The mentor will:

- ❑ Oversee the fellow's work activities by:
 - Creating an environment that fosters professional development
 - Offering advice and assistance
 - Integrating the fellow into the host site environment
- ❑ Help the fellow broaden his/her network of professional colleagues
- ❑ Help the fellow assess resources needed to accomplish goals by, for example, gaining access to data and subject-matter experts
- ❑ Support and encourage the fellow in his or her technical and professional development
- ❑ Express a caring and interested attitude in the fellow's present activities, future goals, and interpersonal relationships with agency staff

Responsibilities of the Mentor

Fellows are to be provided with the same administrative support and provisions that entry level host site employees are provided.

Before the Fellow's arrival:

- ❑ Ensure appropriate office space and equipment (telephone, computer, statistical software etc.) are available. Have essential items for the fellow's assignments and day-to-day activities available.
- ❑ Arrange with the responsible administrative party the following:
 - Identification badge
 - Building/parking/office access keys
 - E-mail account
 - HIPAA information privacy training
 - Health and safety information
 - Parking permits
 - Computer passwords and access is setup on Fellow's computer for all programs the fellow will use
 - Other training, especially related to computer policies and use
- ❑ Provide assistance/recommendations for the fellow, if necessary, for lodging for the duration of the fellowship.
- ❑ Just before fellow's arrival, inform co-workers and office staff of his/her arrival date and make sure the administrative details given above are in order. Be sure that everyone understands the purpose and terms of the fellowship, including how long the fellow will be with the agency and general scope of activities in which he/she will be involved.

Upon the Fellow's arrival:

- ❑ Welcome the fellow to your agency and introduce him/her to the staff (including the Agency director), environment, and resources.
- ❑ Orient the fellow, reviewing the purpose, goals, and objectives of the fellowship, his/her role, the role of the mentor, and any other pertinent information.
- ❑ Ensure that the fellow receives an identification badge, keys, computer access, e-mail address, and other items as outlined in the section above.
- ❑ Work with fellow to develop a mutually agreed upon Plan of Action document, to be submitted to CSTE no later than 90 days after fellow start date. The fellow will receive specific information on Plan of Action preparation at the Applied Epidemiology Fellowship Orientation.

Replacement of Mentor (s)

CSTE requires that each fellow has a primary and secondary mentor for the duration of their fellowship. CSTE will approve each primary and secondary mentor on the basis of their submitted application and relevant supervisory experiences. If circumstances arise where either the primary or secondary mentor resigns from the mentor position either due to job status change, relocation etc, please notify CSTE immediately of this change so that CSTE can work closely with the host agency to identify a replacement in a timely matter. CSTE will require a resume of the identified replacement and will conduct a mentor orientation to familiarize the new mentor with the policy and procedures of the fellowship.

Overseeing, Reviewing and Evaluating Fellowship Assignment Work

- ❑ The mentor is responsible for general oversight of the scientific and technical aspects of the fellow's work assignments. Advice and assistance should be offered to ensure successful progression of applied epidemiologic training over the course of the fellowship. Mentors should be available to spend at a minimum 4 hours per week with the fellow during the first month of the fellowship and 2 hours per week thereafter for the rest of the fellowship. The CSTE National Office will provide administrative support and ensure that the Fellow is working with the mentors to meet competency requirements. The mentor is also expected to ensure that administrative and logistical matters are addressed.
- ❑ The mentor is required to evaluate the fellow's performance biannually; however more frequent informal evaluations are encouraged. Biannual and final evaluation forms can be found online or in the appendix.
- ❑ The mentor is responsible for encouraging the fellow's professional development and for securing financial assistance to ensure professional development. In addition to ensuring that the fellow is free to attend conferences, seminars, and meetings throughout the Agency, the mentor will encourage the fellow to provide feedback on his/her experience(s) within the Agency. The mentor will assist the fellow in making contacts at public health agencies, other federal agencies, and academic institutions to foster professional development.
- ❑ The mentor will be familiar with the "Core Competencies" of the fellowship and strive to ensure that the fellow achieves all training requirements to the extent that

each activity can be performed unaided by the completion of the fellowship. A list of the core competencies can be found on pages 5-6. Thus, the mentor will allow the fellow increasing levels of responsibility and leadership in work assignments as the fellowship progresses.

- ❑ The mentor will discuss future plans with his/her fellow, including possible professional opportunities which might be available for individuals with their acquired experience and abilities.
- ❑ The mentor will attend the CSTE Annual Conference at least 1 of the 2 years of the fellowship period.

Checklist of Mentor Responsibilities

Before the Fellow's arrival:

- ___ Sign Fellow-Host Health Agency agreement and return to CSTE
- ___ Provide assistance/recommendations for suitable long-term housing
- ___ Ensure appropriate office space, software and equipment
- ___ Essential items needed for assignment:
 - ___ Map of workplace
 - ___ Phone directory
 - ___ Relevant publications, references, and work-tools
- ___ Administrative details
 - ___ Identification badge and access keys
 - ___ Health and safety information
 - ___ HIPAA information security training
 - ___ Parking permit (as needed)
- ___ Inform co-workers and office staff of the fellow's arrival, including the purpose and terms of the fellowship

Upon the fellow's arrival at the host health agency:

- ___ Welcome and introduce to staff
- ___ Review purpose, goals, and objectives of the fellowship and mentor's role

- ___ Ensure the fellow receives ID badges, keys, and other items listed above
- ___ Begin working with fellow to develop the Plan of Action

During the Fellowship Period

- ___ Approve the Plan of Action before the end of the fellows 3rd month
- ___ Fill out Fellow Evaluation Forms and review with fellow. Sign fellow's progress reports and final report.
- ___ Attend the CSTE Annual Conference in 2011 or 2012 (at least 1 of the 2 years of the fellowship period).

Biannual Evaluations Due

6-month
18-month
1 year
Final

Final Evaluation and Report Due: Two weeks before fellows last day of work

Fellow Information Record

The following information will assist in maintaining a current record of your business and home address and phone numbers. Please inform CSTE promptly of any changes.

Fellow name: _____

Social Security Number: _____

Home Address: _____

Home phone: _____

Emergency Contact:

Name: _____

Phone: _____

Host Health Agency: _____

Address: _____

Phone (for fellow): _____

Fax (for fellow): _____

E-mail (for fellow): _____

Primary mentor: _____

Phone: _____

E-mail: _____

Work Address:

Secondary Mentor:

Phone: _____

E-mail: _____

Business Cards

All fellows should be provided personalized business cards for distribution at meetings, to colleagues and associates, and others as necessary. The host site is responsible for providing fellows with business cards.

Fellow Brochure

All fellows will be included in the online and printed Fellow brochure. This information must be submitted electronically and follow the format in the example below. Please submit text in font 12 Times New Roman. Do not use periods after titles/degrees. This information must be submitted as an electronic attachment to the Fellowship Program Administrator.

Name (as you want it to appear below your photograph):

Place of Birth:

Highest Degree, concentration, and location:

Certifications (if applicable):

Placement:

Subject Area:

Mentors: Primary:

Secondary:

Future plans after the fellowship:

Summarize your future plans in less than ½ page (12 point font, New Times Roman, 1 inch margins). Bullets or numbers can be used to separate activities.

Why you chose the CSTE Fellowship:

Summarize why you chose the CSTE fellowship in less than ½ page (12 point font, New Times Roman, 1 inch margins). Bullets or numbers can be used to separate activities.

CSTE Direct Deposit Authorization Form

CSTE offers direct deposit of stipend to the bank account of your choice.

- You may choose one account.
- Attach a voided personal check and/or deposit slip for each account to this form to verify your account number and bank routing number.
- Your direct deposit should begin within two pay periods after submission of form.

Check below, as applicable:

- ☐ Begin Deposit
☐ Change Information
☐ Cancel my direct deposit

Name: _____ Social Security Number: _____

(1) Bank Name/ Address _____

Account #: _____

Routing # _____ (nine characters)

Amount \$ _____ or ☐ Entire Net Amount

☐ Checking ☐ Savings

I hereby authorize CSTE to deposit any amounts owed me by initiating credit entries to my account(s) at the financial institutions (hereinafter "Bank") indicated on this form. Further, I authorize bank to accept and to credit any credit entries indicated by CSTE to my accounts. In the event CSTE deposits funds erroneously into my account, I authorize CSTE to debit my account for an amount not to exceed the original amount of the erroneous credit.

This authorization is to remain in full force and effect until CSTE and bank have received written notice from me of its termination in such time and in such manner as to afford CSTE and bank reasonable opportunity to act on it.

Employee Signature

Date

CSTE 2010 Payroll Schedule

2010

Pay Period

Payday

Dec 27	Jan 9	Jan 15
Jan 10	Jan 23	Jan 29
Jan 24	Feb 6	Feb 12
Feb 7	Feb 20	Feb 26
Feb 21	Mar 6	Mar 12
Mar 7	Mar 20	Mar 26
Mar 21	Apr 3	Apr 9
Apr 4	Apr 17	Apr 23
Apr 18	May 1	May 7
May 2	May 15	May 21
May 16	May 29	Jun 4
May 30	Jun 12	Jun 18
Jun 13	Jun 26	Jul 2
Jun 27	Jul 10	Jul 16
Jul 11	Jul 24	Jul 30
Jul 25	Aug 7	Aug 13
Aug 8	Aug 21	Aug 27
Aug 22	Sep 4	Sep 10
Sep 5	Sep 18	Sep 24
Sep 19	Oct 2	Oct 8
Oct 3	Oct 16	Oct 22
Oct 17	Oct 30	Nov 5
Oct 31	Nov 13	Nov 19
Nov 14	Nov 27	Dec 3
Nov 28	Dec 11	Dec 17
Dec 12	Dec 25	Dec 31

CSTE Proof of Insurance

Each fellow is required to attain and maintain individual health insurance for the duration of the fellowship.

Please attach to this form proof of insurance from your provider.

Fellow Name: _____

Insurance Provider: _____

Effective Date of Coverage: _____

Policy number: _____

Primary Care Physician: _____

Complete only if CSTE is providing financial support for insurance:

Monthly premium and effective dates: _____
(Please provide documentation from insurance provider)

- ☐ I will be responsible for paying the monthly premium and submit an expense reimbursement to CSTE with a copy of the processed check each month
- ☐ I will set up a direct bill to CSTE through my health insurance plan. CSTE will be responsible for paying the monthly or quarterly premiums for my health insurance.

Emergency Contact(s) Data

Please designate two emergency contact individuals, and provide information requested:

Primary contact:

Name: _____

Relationship to you: _____

City, State of residence: _____

Home telephone: _____

Work telephone: _____

Cellular telephone: _____

Secondary contact:

Name: _____

Relationship to you: _____

City, State of residence: _____

Home telephone: _____

Work telephone: _____

Cellular telephone: _____

Fellow Plan of Action 2010

Plan of Action

Name:

Program Area:

Date:

Primary Mentor:

Secondary Mentor:

1. Surveillance activity in which the fellow will participate

TITLE OF PROJECT

BRIEF DESCRIPTION OF PROJECT

2. Surveillance system to be evaluated

TITLE OF PROJECT

BRIEF DESCRIPTION OF PROJECT

3. Role in bioterrorism preparedness and response

BRIEF DESCRIPTION OF ROLE:

4. Major Project (including timeline)

TITLE OF MAJOR PROJECT

BRIEF DESCRIPTION OF MAJOR PROJECT:

Timeline:

Year	Month	Activities
2010	July	•
	August	•

	Sept.	• •
	Oct- Dec.	• •
2011	Jan.	•
	Feb.	•
	March	•
	April	•
	May	•
	June	•
	Jul.- Aug.	•
	Sept.	•
	Oct.	•
	Nov.	•
	Dec.	•
2012	Jan.	•

5. National, state or regional meeting(s) to be attended

Future Meetings:

1.

6. Other activities/projects

A.

Fellow Progress Table

Epidemiologic Methods:	Manner Fulfilled	Date Anticipated:
Design surveillance systems to assess health problems		
Evaluate surveillance systems and know the limitations of surveillance data		
Design an epidemiologic study to address a health problem		
Design a questionnaire or other data collection tool to address a health problem		
Collect health data from appropriate sources (e.g. case interviews, medical records, vital statistics records, laboratory reports, or pathology reports)		
Create a database for a health data set		
Use statistical software to analyze and characterize epidemiologic data		
Interpret findings from epidemiologic studies, including recognition of the limitations of the data and potential sources of bias and/or confounding.		
Recommend control measures, prevention programs, or other public health interventions based on epidemiologic findings		

Communication	Manner Fulfilled:	Date Anticipated:
Write a field investigation report resulting from an a		
Write a surveillance report		
Make an oral presentation using appropriate media		
Present data graphically and know how to use graphic software		
Understand the basics of health risk communication and communicate epidemiologic findings in a manner easily understood by lay audiences		
Master's level fellows: present a poster at a national or regional meeting, public a technical report, or prepare a manuscript for publication in a peer reviewed journal		
Doctoral-level fellows: prepare a manuscript for publication in a peer reviewed journal		

The plan of action will be updated periodically throughout the fellowship to reflect changes and new activities. The following participants in the CDC/CSTE Applied Epidemiology Fellowship program have approved this Plan of Action in its current form:

Fellow Signature: _____

Date: _____

Mentor Signature: _____

Date: _____

Mentor Signature: _____

Date: _____

Fellow Quarterly Progress Report

Please submit the following information to CSTE electronically on or before the due date listed on page 8 of this handbook.

Quarterly Progress Report

Name:

Date:

Host Health Agency:

Primary Mentor:

Secondary Mentor:

Note: Activities since the last progress report are in bold.

1. Overview of activities and accomplishments to date according to the Plan of Action.
 - a. Surveillance project participation:
Overview of Project:

Activities completed on project:

- (1)
- (2)
- (3)
- (4)
- (5)
- (6)
- (7)
- (8)
- (9)

Activities since last progress report:

NEXT PROJECT (BRIEF BACKGROUND)

Recent activities and project status:

- (1)
- (2)
- (3)
- (4)
- (5)
- (6)

Activities since last progress report:

NEXT PROJECT (BRIEF BACKGROUND)

Recent activities and project status:

- (1)
- (2)
- (3)
- (4)
- (5)

Activities since last progress report:

NEXT PROJECT (BRIEF BACKGROUND)

Recent activities and project status:

- (1)
- (2)
- (3)
- (4)
- (5)
- (6)

Activities since last progress report:

NEXT PROJECT (BRIEF BACKGROUND)

- a. Evaluation project progress:

Project (Brief Background)

Activities since last progress report:

(1)

(2)

- b. Bioterrorism preparedness and response activities:

(1)

(2)

Activities since last progress report:

(1)

(2)

- c. Progress made on major project:

TITLE OF MAJOR PROJECT:

(1) A Timetable listing tasks completed through _____

(2)

See below for progress made with INSERT MAJOR PROJECT NAME:

Year	Mon	Activities (√= Activity Complete)
2010	Aug.	
Activities since last report:	Sep.	
	Oct.	
	Nov.	
	Dec.	
2011	Jan.	
	Feb.	
	Mar.	
	Apr.	

	May.	
	June	
	July	
	Aug.	
	Sept.	

d. Meetings, conferences, or presentations attended:

- (1)
- (2)
- (3)
- (4)

e. Presentations given (date, title, and forum):

- (1)
- (2)
- (3)

Activities since last progress report:

- (1)
- (2)

f. Training courses, seminar series attended:

Web cast presentations:

- (1)
- (2)
- (3)

Web cast attended since last progress report:

- (4)
- (5)

g. Participation in cluster/outbreak investigation(s):

BRIEF DESCRIPTION OR BACKGROUND OF WORK

h. Publications (papers/abstracts/posters):

- i. Keeping primary and secondary mentors updated of Fellow's progress:

Summary of overall fellowship experience to date:

Comments:

- a. **Fellow comments:**

- b. **Mentors comments:**

Fellow Evaluation Form – 6 months

Please complete a formal evaluation of the fellow using the criteria below. Discuss your evaluation with the fellow and obtain his/her signature.

Due to CSTE on or before end of 6th month of fellowship.

Name: _____

Date: _____

1. Please describe the progress that the fellow is making on his/her Plan of Action.
2. Please rate the fellow in the following areas:

Rating scale:

- 1 – Needs significant improvement
- 2 – Needs some improvement
- 3 – Meets expectations
- 4 – Exceeds expectations
- 5 – Consistently exceeds expectations

	5	4	3	2	1
Skills:					
Technical					
Analytical					
Task Management:					
Quality of work					
Quantity of work					
Organizational skills					
Creativity					
Communication					
Written					
Verbal					
Contribution to team effort					
Judgment					
Degree of independence					
Motivation					
Leadership					
Teamwork					
Interpersonal skills					

3. Describe strengths the fellow has demonstrated over the past six months.

4. Identify areas for improvement that the fellow can strive for in the next six months

1° Mentor signature: _____ **Date:** _____

2° Mentor signature: _____ **Date:** _____

Fellow signature: _____ **Date:** _____

Fellow Evaluation Form – 12 months

Please complete a formal evaluation of the fellow using the criteria below. Discuss your evaluation with the fellow and obtain his/her signature.

Due to CSTE on or before end of 1st year of fellowship.

Name: _____

Date: _____

1. Please describe the progress that the fellow is making on his/her Plan of Action.
2. Please rate the fellow in the following areas:

Rating scale:

- 1 – Needs significant improvement
- 2 – Needs some improvement
- 3 – Meets expectations
- 4 – Exceeds expectations
- 5 – Consistently exceeds expectations

	5	4	3	2	1
Skills:					
Technical					
Analytical					
Task Management:					
Quality of work					
Quantity of work					
Organizational skills					
Creativity					
Communication					
Written					
Verbal					
Contribution to team effort					
Judgment					
Degree of independence					
Motivation					
Leadership					
Teamwork					
Interpersonal skills					

3. Describe strengths the fellow has demonstrated over the past six months.

4. Identify areas for improvement that the fellow can strive for in the next six months.

1° Mentor signature: _____ Date: _____

2° Mentor signature: _____ Date: _____

Fellow signature: _____ Date: _____

Fellow Evaluation Form – 18 months

Please complete a formal evaluation of the fellow using the criteria below. Discuss your evaluation with the fellow and obtain his/her signature.

Due to CSTE on or before end of 18th month of Fellowship.

Name: _____

Date: _____

1. Please describe the progress that the fellow is making on his/her Plan of Action.

2. Please rate the fellow in the following areas:

Rating scale:

- 1 – Needs significant improvement
- 2 – Needs some improvement
- 3 – Meets expectations
- 4 – Exceeds expectations
- 5 – Consistently exceeds expectations

	5	4	3	2	1
Skills:					
Technical					
Analytical					
Task Management:					
Quality of work					
Quantity of work					
Organizational skills					
Creativity					
Communication					
Written					
Verbal					
Contribution to team effort					
Judgment					
Degree of independence					
Motivation					
Leadership					
Teamwork					
Interpersonal skills					

3. Describe strengths the fellow has demonstrated over the past six months.

4. Identify areas for improvement that the fellow can strive for in the next six months.

1° Mentor signature: _____ Date: _____

2° Mentor signature: _____ Date: _____

Fellow signature: _____ Date: _____

Fellow Evaluation Form - Final

Please complete a formal evaluation of the fellow using the criteria below. Discuss your evaluation with the fellow and obtain his/her signature.

Due to CSTE two weeks before the end of fellowship.

Date: _____

1. Has the fellow achieved the goals documented in their Plan of Action? If not, describe progress made.

2. Please rate the fellow in the following areas:

Rating scale:

- 1 - Needs significant improvement
- 2 - Needs some improvement
- 3 - Meets expectations
- 4 - Exceeds expectations
- 5 - Consistently exceeds expectations

	5	4	3	2	1
Skills:					
Technical					
Analytical					
Task Management:					
Quality of work					
Quantity of work					
Organizational skills					
Creativity					
Communication					
Written					
Verbal					
Contribution to team effort					
Judgment					
Degree of independence					
Motivation					
Leadership					
Teamwork					
Interpersonal skills					

3. Describe strengths the fellow has demonstrated during the fellowship.

4. Identify areas for improvement that will help the fellow have a successful career as an epidemiologist.

5. Briefly list significant accomplishments of the fellow.

6. Additional comments or advice for the fellow.

1° Mentor signature: _____ **Date:** _____

2° Mentor signature: _____ **Date:** _____

Fellow signature: _____ **Date:** _____

Fellow Final Report

This form must be submitted to CSTE at least 2 weeks prior to the Fellow's separation with their host health agency.

Fellow name: _____

Host Health Agency: _____

Dates of fellowship assignment: _____

Provide a summary of your training, research, and applied epidemiology experience.
Please include your most significant accomplishments.

List and describe any of the following in which you participated during your fellowship:

Publications, including abstracts, posters, and/or Agency reports. List date, title, forum, etc. (If you have not already done so, please forward a copy to CSTE).
Outbreak investigations. Include summaries of your activities for each investigation.
Domestic and/or international meetings or conferences (give dates).

What impact did you have on your host health agency? This may include procedures, policies, and/or new projects and collaborations.

4. Did this program meet your training objectives as submitted in your original application? Describe.
5. What changes would you like to see in this program for future Applied Epidemiology Fellows?
6. What are your post-fellowship career plans?

7. Please provide your permanent forwarding contact information (address, phone, e-mail)
8. Mentor comments:
Please ask your mentor(s) to review your Final Report and provide additional comments and a final statement.

Signatures

Fellow: _____ **Date:** _____

Primary mentor: _____ **Date:** _____

Secondary mentor: _____ **Date:** _____

IV. CSTE Travel Policy

Purpose

CSTE appreciates the efforts of those who travel for the organization. Travelers should be comfortable while traveling, understand all travel related policies, and obtain reimbursement quickly. At the same time, it is necessary to keep costs within reasonable limits and to follow consistent reimbursement procedures. Expenses not specifically addressed in these guidelines must be approved by the CSTE National Office prior to incurring the expense. CSTE reserves the right to deny expenses exceeding reasonable or allowable costs as deemed appropriate by CSTE.

The travel policy meets the IRS definition of an “accountable plan”; therefore your travel reimbursement will not be reported as income. A complete expense reimbursement form accompanied by receipts substantiating the amount, time and business purpose of your expenses is required within 30 days of trip completion.

Air Travel

Travelers are expected to book the lowest-priced, coach class airfare available of any airline available that is within two hours of (prior to or after) desired flight time; the use of an alternative airport serving the destination city; and/or the use of multiple stop flights that may include layovers. Travelers choosing an airline for its amenities or frequent flyer programs will be responsible for the difference in cost. Although at the present time CSTE awards the benefits of frequent flyer clubs and hotel programs to its travelers, it reserves the right to change this policy. CSTE will not reimburse travelers for tickets purchased with frequent flyer miles.

Business and first class domestic travel will not be reimbursed unless the Executive Director has a letter explaining the medical reasons or extenuating circumstances that require such service in advance of ticket purchase. Documentation of approval is required with expense reimbursement form.

Airline Reservations

American Express Travel is the official travel agent for CSTE. In order to reserve the lowest ticketed price, reservations must be made no later than three weeks prior to your arrival date provided notification of travel is within this timeframe or as soon as notification is made. Reservations not made within a reasonable time period are subject to a fare differential that may be the responsibility of the traveler.

Travelers booking flights independent of the official travel agent must be approved by the CSTE National Office prior to incurring the expense by providing a comparative chart of the airfares, such as on a “Booking Buddy”. Please see www.bookingbuddy.com. Documentation of approval and comparative chart is required with expense reimbursement form.

Upgrades for Domestic Air Travel

- An upgrade at the expense of CSTE is not permitted.
- A free upgrade or an upgrade at the expense of the traveler must be noted as such on the expense reimbursement form.

Sponsored Project Domestic Travel

Federally funded trips must be traveled on U.S. carriers at coach rates. Airfare costs in excess of the lowest available commercial discount airfare or customary standard (coach or equivalent) airfare on a U.S. carrier are not allowed except when such accommodations would:

- Require circuitous routing;
- Require travel during unreasonable hours;
- Excessively prolong travel;
- Result in increased costs that would offset transportation savings; and
- Be inadequate for the medical needs of the traveler.

For the complete federal travel regulations please refer to OMB Circular A-21.

Sponsored project travel should adhere to the guidelines set forth by this policy unless the sponsor imposes greater restrictions.

Cancellations/Changes

CSTE will not pay for airline change fees unless the changes are due to an emergency or approved by the CSTE National Office prior to incurring the expense. Documentation of approval is required with the expense reimbursement form.

- When a trip is cancelled after the ticket has been issued, the travelers should inquire about using the same ticket for future travel.
- Travelers can reuse airline tickets for future CSTE travel if airfare eligibility requirements are met. These requirements should be verified with the issuing ticketing agency.
- Unused airline tickets or flight coupons have a cash value and therefore must not be discarded or destroyed.
- To expedite refunds, unused or partially used airline tickets must be returned immediately to the travel agency that issued the ticket.
- Unused tickets must not be sent to the airline unless they were issued directly from the airline. Contact the airline for their return procedures and requirements.
- Travelers should not include unused tickets with their Expense reports.

Luggage Fees

CSTE will reimburse for one checked bag on travel requiring less than a one week stay. For travel requiring more than a one week stay, reimbursement fees for a second checked bag is allowed. No other luggage expenses will be reimbursed to travelers.

Lodging

- Travelers must stay in a standard room at a non-luxury hotel, unless CSTE has negotiated a rate with a particular luxury hotel.
- Per night room costs should not exceed the most expensive rate listed in the federal rate for that city without prior authorization. Please see www.gsa.gov for an up-to-date listing of federal lodging rates, as part of per diem.
- When available, travelers should request the hotel's government rate.
- Many hotels have frequent guest programs that reward travelers with free accommodations in exchange for a specified number of paid room nights at a hotel. CSTE will not reimburse travelers for the value of free accommodations used for business travel.
- Suites and concierge-level rooms are not reimbursed. A free upgrade must be noted on expense reimbursement form.
- For your safety and security, always investigate security measures for your hotel room (e.g. door locks, fire exits, and alarm systems).

Conference Reservations

- When traveling to a conference, it is appropriate to stay at one of the hotels hosting the conference at the conference lodging rate even if the rate exceeds the most expensive hotel listed in the federal per diem guidelines. When available, travelers should request the hotel's government rate.
- If there are several conference hotels, travelers should stay at a non-luxury property.
- Travel agents can often book the conference hotel rate based on codes provided in the conference information.

Hotel Upgrades

- An upgrade at the expense of CSTE is only permitted if the upgraded room rate does not exceed the highest rate listed in the federal per diem listing for that city and there is a preapproved business reason for the upgrade. Documentation of approval is required with expense reimbursement form.

Cancellations

- It is the traveler's responsibility to notify either the hotel or the agency with which reservation was made to cancel room reservations.
- Cancellation deadlines are based on the local time at the destination hotel.
- Travelers should request and record the cancellation number in case of billing disputes. CSTE will assist the traveler with any billing dispute on reservations they have made.
- Travelers will not be reimbursed for "no show" charges.

Hotel Personal Expenses

Personal expenses incurred while traveling will not be reimbursed.

Meal Expenses

Travelers are given per diem to cover lodging, meals and incidental expenses in connection with the performance of service to CSTE. Please refer to the following website for a complete, up-to-date listing of per diem rates www.gsa.gov. Travelers who use per diem allowances do not have to substantiate each meal expense, but they must demonstrate that the trip occurred with a receipt, such as an airline ticket or hotel folio, that indicates the dates of travel. For audit purposes this documentation must be attached to the expense report.

The federal per diem for meals will be awarded for the destination of the trip. The daily per diem must be accounted for on the travel reimbursement less meals provided by your travel destination or host, and partial day travel.

Per diem allowances may not be issued in lieu of service payments such as consulting fees or honoraria.

Ground Transportation

Taxis, shuttle services and local public transportation are encouraged for travel to and from airports. CSTE will only reimburse for ground transportation expenses to and from airports. Ground transportation fees within a venue city are not reimbursable unless the traveler receives prior approval from CSTE. Documentation of approval is required with expense reimbursement form.

Rental Cars

Rental car expenses are not reimbursable unless the traveler receives prior approval from CSTE. Documentation of approval is required with expense reimbursement form.

Personal Automobile

Mileage will be reimbursed at the prevailing IRS per-mile rate for business use of personal automobile. Other automobile expenses such as gas, oil, tires, and so on are not reimbursable expenses.

Use of personal automobiles for trips exceeding 600 miles round trip is not permissible without prior approval from CSTE. Travelers must provide a comparative chart of the airfares, such as a "Booking Buddy" with the request. Documentation of approval and comparative chart is required with expense reimbursement form. In all cases, the maximum amount of reimbursement will be the total cost of the most economical airfare (based on round trip in most cases).

Telephone Usage

Travelers will be not be reimbursed for phone calls. Travelers requesting reimbursement for internet use must request approval before travel occurs. Documentation of approval is required with expense reimbursement form.

Expense Reporting

- CSTE requires that travelers file an expense report within 30 days of trip completion. Expense reports filed after 60 days will not be paid unless approved by the Executive Director for reasonable cause.
- The expense report must include a date and the traveler's signature.
- Documentation should include receipts, name of the vendor, location, date, and dollar amount. In addition, the following must be included:
 1. air/rail ticket receipt
 2. hotel folio
 3. receipts for tolls and parking if costs exceed \$25.00
- An expense report form and sample are attached.
- Electronic and fax copies can be accepted.

Incorrect or Incomplete Expense Reports

Expense reports that are incorrect or incomplete will be returned to the traveler for corrective action and may result in delay of reimbursement. Most frequent reasons for returned expense reports include missing traveler's signature and missing receipts.

A correction and/or change to the expense report as a result of an accounting audit of the report will be documented with a correction note. For errors in arithmetic and disallowed items, a correction note denoting the errors will be sent to the traveler and an appropriate adjustment made to the reimbursement.

Reimbursement

Reimbursement will occur within 30 working days of receipt by the CSTE Business Manager. Checks will be sent to the address provided on expense reimbursement form.

Relocation Expense Reimbursement Policy

General guidance follows:

Household goods and personal effects. You can deduct the cost of packing, crating, and transporting your household goods and personal effects and those of the members of your household from your former home to your new home.

You can deduct any costs of connecting or disconnecting utilities required because you are moving your household goods, appliances, or personal effects.

You can deduct the cost of moving your household goods and personal effects from a place other than your former home. Your deduction is limited to the amount it would have cost to move them from your former home.

You cannot deduct the cost of moving furniture you buy on the way to your new home.

Storage expenses. You can include the cost of storing and insuring household goods and personal effects within any period of 30 consecutive days after the day your things are moved from your former home and before they are delivered to your new home.

Travel expenses. You can deduct the cost of transportation and lodging for yourself and members of your household while traveling from your former home to your new home. This includes expenses for the day you arrive.

You can include any lodging expenses you had in the area of your former home within one day after you could no longer live in your former home because your furniture had been moved.

You can deduct expenses for only one trip to your new home for yourself and members of your household.

OMB Circular A-122

42. Relocation costs.

a. Relocation costs are costs incident to the permanent change of duty assignment (for an indefinite period or for a stated period of not less than 12 months) of an existing employee or upon recruitment of a new employee. Relocation costs are allowable, subject to the limitation described in subparagraphs b, c, and d, provided that:

(1) The move is for the benefit of the employer.

(2) Reimbursement to the employee is in accordance with an established written policy consistently followed by the employer.

(3) The reimbursement does not exceed the employee's actual (or reasonably estimated) expenses.

b. Allowable relocation costs for current employees are limited to the following:

(1) The costs of transportation of the employee, members of his immediate family and his household, and personal effects to the new location.

(2) The costs of finding a new home, such as advance trips by employees and spouses to locate living quarters and temporary lodging during the transition period, up to maximum period of 30 days, including advance trip time.

(3) Closing costs, such as brokerage, legal, and appraisal fees, incident to the disposition of the employee's former home.

These costs, together with those described in (4), are limited to 8 percent of the sales price of the employee's former home.

(4) The continuing costs of ownership of the vacant former home after the settlement or lease date of the employee's new permanent home, such as maintenance of buildings and grounds (exclusive of fixing up expenses), utilities, taxes, and property insurance.

(5) Other necessary and reasonable expenses normally incident to relocation, such as the costs of canceling an unexpired lease, disconnecting and reinstalling household appliances, and purchasing insurance against loss of or damages to personal property. The cost of canceling an unexpired lease is limited to three times the monthly rental.

c. Allowable relocation costs for new employees are limited to those described in (1) and (2) of subparagraph b. When

relocation costs incurred incident to the recruitment of new employees have been allowed either as a direct or indirect cost and the employee resigns for reasons within his control within 12 months after hire, the organization shall refund or credit the Federal Government for its share of the cost. However, the costs of travel to an overseas location shall be considered travel costs in accordance with paragraph 50 and not relocation costs for the purpose of this paragraph if dependents are not permitted at the location for any reason and the costs do not include costs of transporting household goods.

d. The following costs related to relocation are unallowable:

(1) Fees and other costs associated with acquiring a new home.

(2) A loss on the sale of a former home.

(3) Continuing mortgage principal and interest payments on a home being sold.

(4) Income taxes paid by an employee related to reimbursed relocation costs.

Example Fellow Projects

- Developing a program evaluation plan to enhance the STEPS surveillance system, a five year project focused on the prevention and management of asthma, diabetes, and obesity in schools and communities
- Evaluating the Washington Asthma Initiative
- Utilizing the Washington State Cancer Registry Records to conduct data linkage and a field study involving adjuvant therapy for colorectal cancer
- Characterizing the health status of young adults in Maine
- Evaluating a child health assessment monitoring tool (The Child Health Assessment and Monitoring Program-CHAMP) for North Carolina
- Estimating the burden of asthma in Maine and Florida
- Organizing and disseminating the Massachusetts Behavioral Risk Factor Surveillance System (BRFSS) Annual Report
- Linking birth defects certificate data with a subset from the Diabetes Outreach Network database
- Conducting assisted reproductive technology surveillance in Massachusetts
- Conducting surveillance of the leading causes of cancer and trends in cancer incidence and mortality in Washington State
- Conducting an analysis of demographic factors related to screening for breast, cervical, colorectal and prostate cancers in Washington State
- Conducting the Washington Adult Health Survey, a door-to-door survey, to assess the prevalence of cardiovascular disease among adults
- Designing a module to address worksite health promotion activities and attitudes about worksite emergency preparedness activities for the Behavioral Risk Factor Surveillance System of Georgia (BRFSS)
- Conducting an evaluation of the Georgia Comprehensive Cancer Registry (GCCR)
- Utilizing the Perinatal Periods of Risk (PPOR) technique to decompose and assess the rates of infant mortality to help elucidate disparities in infant mortality in Pennsylvania
- Assessing the impact of the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) on access to prenatal health services and the risk of adverse perinatal outcomes among low income women in Pennsylvania
- Developing and implementing a protocol for the surveillance of asthma, Fetal Alcohol Syndrome, and Cerebral Palsy in Washington State
- Developing a survey instrument, protocol, database and piloting the survey for the Alaska Childhood Understanding Behaviors Survey (CUBS)
- Evaluating the Louisiana Pregnancy Risk Assessment Monitoring System (LA-PRAMS)
- Linking the special supplemental nutrition program for women, infants, and children (WIC) data with vital records certificates of live births
- Linking Colorado's birth defects registry and the universal newborn hearing screening data set to evaluate congenital hearing loss
- Designing the evaluation plan for the Virginia Congenital Anomalies Tracking and Prevention Improvement Project II
- Utilizing the National Survey of Children's Health (NSCH) to identify potential opportunities to intervene with overweight school aged children in Florida
- Utilizing the NSCH to examine the pediatric oral health needs and elucidating disparities in unmet needs
- Assessing the circumstances surrounding fatal fall injuries in the elderly
- Evaluating an HIV-exposure and partner notification surveillance system
- Evaluating a poison control center to determine if the data can predict carbon monoxide poisonings.

- Creating a cumulative exposure index for workers in the World Trade Center Registry and characterize their exposures
- Conducting surveillance of passengers arriving on international flights, goods, and other methods of conveyance to prevent the importation and spread of communicable diseases of public health significance
- Conducting tuberculosis surveillance system for migrants (immigrants, refugees, and asylees)
- Investigating cancer clusters among firefighters
- Conducting a seroprevalence and behavioral study of intravenous drug users
- Utilizing the Youth Risk Behavior Survey (YRBS) to determine gambling patterns among youth
- Evaluating a childhood lead poisoning surveillance system
- Linking data to assess birth defects to infants born to women with diabetes
- Examining the relationship between socioeconomic and demographic factors and type of treatment for colon cancer
- An Analysis of Exposure Patterns after a Release of Methylmercury in Wisconsin
- The Awareness of Outdoor Air Quality Alerts and their Impact on Outdoor Activity Level in Eight States
- Developing Tools and Methods for Routinely Linking Health Effects with Air Emissions: A pilot project with childhood cancers
- Development of Indicators and Measures for Dane County and Wisconsin Cardiovascular Disease and Chronic Obstructive Pulmonary Disease
- Conducting Surveillance for Occupational Heat Illness Among California Workers by Gathering and Analyzing Data from the Worker's Compensation Information System on "Heat Prostration" Claims from 2005-2006
- Occupational Heat Illness Tracking (OHIT) in California- A Pilot Project
- Conducting an Evaluation of Rabies Post-Exposure Prophylaxis Surveillance System in Washington State
- Investigating the role of children in influenza transmission by designing a study using the Vaccine Safety Data Unit
- Characterizing communicable diseases syndromic surveillance at US ports of entry
- Conducting population enhanced laboratory hepatitis A surveillance
- Analyzing data from the Hispanic Health Awareness and Practice Survey (HHAPS)
- Assessing pneumococcal vaccination in a hospital using the Quality Assessment Review (QAR) tool
- Evaluating of the NYC mumps surveillance system
- Evaluation of Hepatitis A Binational Surveillance in El Paso, TX and Ciudad Juarez, MX from 1999 to 2005
- Conducting an All Terrain Vehicle (ATV) Death and Injury Pilot Surveillance Project
- Evaluating an adolescent suicide attempt data system
- Conducting a study to examine and assess the costs resulting from falls in the elderly and to determine the factors that are associated with the falls that lead to the need for long-term care
- Conducting an analysis of a public health laboratory's serum archive HIV data
- Evaluating the Michigan Syndromic Surveillance System (MSSS)
- Risk factors for extraintestinal non-typhoidal *Salmonella* infection and patient health outcomes
- Supplemental Public Health Surveillance of HIV, STI's, and Viral Hepatitis in Special Populations
- Consequences of Reporting Delays and the Resulting Incomplete Reporting on HIV Prevention and Care Services

Major Project Examples

All fellows are required to complete a Major Project during their fellowship. The Project must include a public health problem or program evaluation, use of epidemiologic methods and data analysis and interpretation. It is expected that fellows will have the opportunity to achieve many of the required core competencies while completing the Major Project. Below are examples of Major Projects from previous fellowships:

- *Explore the risk of West Nile virus transmission from birds to humans through atypical routes, such as fecal-oral or percutaneous routes.* The fellow compared pre- and post-mosquito season of WNV antibodies (IgM and IgG) in bird handlers and controls. The fellow designed a questionnaire to be administered to study groups to identify risk and protective factors, which required the fellow to seek IRB approval. Results from the study were used to recommend precautions for bird handlers such as wearing protective equipment and frequent hand washing.
- *Investigate cancer cluster among firefighters in Seattle, Washington.* The fellow performed a proportional incidence ratio (PIR) analysis to examine the proportional cancer incidence in a cohort of firefighters and that of the general population in three surrounding counties. While completing this project, the fellow experienced working with the local health department, presenting information to a non-technical audience, presenting information in a highly political and emotional situation, and becoming familiar with the department's cluster analysis protocol. The fellow also gained experience in preparing and submitting IRB applications for appropriate reviews.
- *Conduct an evaluation of a Newborn Screening (NBS) program using the CDC guidelines for evaluating a surveillance system.* The state ran a matching program between Newborn Screening data and birth certificates. The fellow determined the rate of participation in NBS, as well as the coverage rate of birth certificates by matching NBS data with birth certificates. The fellow also analyzed NBS data to determine the percent of newborns from birth certificates that have not been screened due to new 'opt out' provision and identify the provision's impact on surveillance. NBS data were analyzed by race/ethnicity, hospital, region and other demographic and/or risk factor variables as requested.
- *Design an epidemiologic investigation evaluating the potential role environmental exposures may play in hearing loss.* Environmental exposures were investigated in two stages. The first stage was an ecological investigation exploring potential correlations between aggregated level environmental exposures and hearing loss for hypothesis generating activities within the state's Environmental Public Health Tracking (EPHT) program. The second stage involved

a case-control study to examine hearing loss and environmental exposures using a survey questionnaire.

- *Conduct a 3-4 month pilot of the Pregnancy Risk Assessment Monitoring System (PRAMS).* The state in which the fellow was working planned to submit a grant to CDC for PRAMS and wanted to demonstrate a successful commitment to PRAMS. The fellow implemented the pilot project following the standardized PRAMS procedures developed by CDC. The Fellow prepared a protocol, budget, and IRB proposal. The fellow also worked with vital records department to develop a sampling frame from total live births to in-state residents from birth certificates and select a sample of women to survey. The fellow handled most of the administrative aspects of PRAMS pilot project, participating in training programs, sampling procedures, data collection, data analysis, and data dissemination. Results from this pilot project were used to prepare for CDC funding for PRAMS in 2005.
- *Assess pertussis vaccine using a case-control study.* The fellow conducted a study to evaluate pertussis vaccine effectiveness by number of vaccine doses, to determine if vaccine type (i.e. DTP, DTaP, or Td) is associated with acquisition of pertussis, and to identify potential factors contributing to a regional outbreak in the state in which the fellow worked. Cases were matched to controls on school and possibly classroom. Cases were identified using line lists from the four counties in which the outbreak originated and controls were identified by school rosters, with the assistance of school administrators. Vaccination records were obtained from the schools and if information was not complete, records will be verified with the child's health care provider.
- *Complete a retroactive exposure assessment pertaining to rescue recovery, and clean-up work at the World Trade Center following the attacks of 9/11/01 using the World Trade Center Registry Data.* The fellow compared two indices: one based on an industrial hygiene panel's ranking of various exposure variables available in the Registry and one based on the results of univariate modeling with each of these exposure variables for the outcome of three or more illnesses. The fellow then characterized the workers' exposures using a deterministic model (exposures to specific substances measured at one point in time are used to describe historic exposure levels based on the knowledge of changes in the worksite over time). For this model, the fellow described a timeline of the natural history of the recovery/clean-up process to document changes in the worksite and utilized environmental sampling data taken from the WTC site over time.

Fellow Plan of Action

Name:

Program Area: Infectious Disease

Year: 2009

Primary Mentor:

Secondary Mentor:

1. Surveillance Activity

Perinatal Group B *Streptococcus* Disease (Mentor:)

Major Competencies: Design a surveillance system, design an epidemiologic study, interpret findings, and recommend control measures

Since its emergence in the 1970s, group B streptococcal (GBS) disease had been the leading bacterial infection associated with illness and death among newborns in the United States until 1996, when CDC issued prevention strategies. Newborns at increased risk for GBS disease are those born to women who are colonized with GBS in the genital or rectal areas.

In 1996, CDC recommended the use of one of two prevention strategies for the prevention of invasive Group B Streptococcal disease. In the first strategy, intrapartum antibiotic prophylaxis is offered to women identified as GBS carriers through prenatal screening cultures collected at 35–37 weeks' gestation and to women who develop premature onset of labor or rupture of membranes at <37 weeks' gestation. In the second strategy, intrapartum antibiotic prophylaxis is provided to women who develop one or more risk conditions at the time of labor or membrane rupture. Many perinatal GBS infections can be prevented through intrapartum antimicrobial prophylaxis. In 2008, the state received 57 reports of invasive GBS disease in neonates less than 90 days old. The goal of this project is to determine the percent of cases that may have been preventable if these two strategies had been implemented. This information will assist the Department of Health Services in developing educational campaigns and control measures to prevent additional cases.

Fellow Activities

- Review current literature on perinatal Group B Streptococcal disease, including information on the current guidelines and recommendations.
- Obtain all reports of invasive GBS disease in neonates <90 days old in the state from MEDSIS
- Conduct medical record reviews of all neonates and their mothers to determine whether patients had been screened prenatally and if CDC recommendations had been followed.
- Determine the percentage of cases that could have been preventable, and which control measures could have been implemented.
- Create a report summarizing findings of the evaluation and recommendations for implementing improvements.

2. Surveillance Evaluation

Evaluate the Sensitivity and Specificity of Serologic Testing for Pertussis (Mentor:)

Major Competencies: Evaluate surveillance systems, design a data collection tool, create a database, use statistical software to analyze epidemiologic data, write a surveillance report, oral presentation, and present a poster at a national meeting

In 2009, pertussis cases have been increasing among infants in the state with 165 cases reported year to date, including 14 cases reported in infants. In the state, health care providers are required to report all suspect cases of pertussis and laboratories are required to report positive cultures for pertussis. Despite these requirements, diagnosis and reporting of pertussis by health care providers has been unreliable and pertussis is often underreported, particularly in adults. Although not reportable, many laboratories report pertussis serologic tests to the Department. However, most local health departments do not investigate positive serologies without a supporting diagnosis or additional testing. Since serologic testing is easier and more widely available to healthcare providers, the Department is interested in evaluating the efficacy of serologic testing in identifying previously unreported pertussis cases. The goal of this project is to determine the percent of patients with serologic testing who meet the clinical case definition for pertussis. This information will assist local health departments to prioritize pertussis investigations in order to implement contact investigations as soon as possible to prevent additional cases.

Fellow Activities:

- Review current literature on pertussis testing and diagnosis, including information on the sensitivity and specificity of serology.
- Obtain all serologic tests performed by Labcorp (the second largest lab in the state)
- Create a data abstraction form to standardize data collection
- Conduct medical record reviews of all tested patients to determine whether patients had symptoms consistent with the clinical case definition of pertussis.
- Interview cases to determine whether the patient had symptoms consistent with pertussis and to assess risk factors and healthcare-seeking behaviors associated with positive results.
- Utilize the Centers for Disease Control and Prevention guidelines for evaluating a surveillance system to evaluate the pertussis surveillance system in the state.
- Determine the percentage of cases with pertussis serology that meet the case definition and calculate the sensitivity and specificity for pertussis serology.
- Submit an abstract for a poster presentation at the 2010 CSTE Annual Conference.
- Create a report summarizing findings of the evaluation and recommendations for implementing improvements.

3. Role in Bioterrorism and Response

Competencies: Understand the basics of health risk communication, Analyze data graphically

The Infectious Disease Epidemiology Section, the section where the CSTE fellow is placed, is responsible for leading epidemiologic activities under the Public Health Emergency

Preparedness Cooperative Agreement and the section leads response activities during emergencies and drills. All staff in the program are required to receive training on incident command and to attend training on the Health Emergency Operation Center (HEOC). Fellow has completed trainings on the HEOC Operational Plan and has completed the following incident command systems (ICS) trainings: ICS-100, ICS -200, and ICS-700.

The state HEOC and is currently operating under an incident command structure for H1N1 response activities. Primary Mentor is the Operations Chief for the response. Fellow has been incorporated into the H1N1 response in the operations section performing epidemiology and community mitigation. The fellow is responsible for monitoring ADHS and CDC guidance on H1N1 and has developed a matrix summarizing the current recommendations for H1N1 infection control and vaccination. This information is disseminated to the counties weekly. In addition, the fellow has been cross-trained to conduct surveillance for influenza-like illness (ILI) and to analyze school absenteeism data. She will remain involved in emergency preparedness activities as needs arise.

4. Major Project

Epidemiology of Disseminated Coccidioidomycosis (Mentor:)

Major Competencies: Design an epidemiologic study, design a data collection tool, create a database, use statistical software to analyze epidemiologic data, interpret findings write a surveillance report, oral presentation, and present a poster at a national meeting

Coccidioidomycosis is one of the most commonly reported infections in the state with 4,768 cases reported in 2008. The disease is endemic in the Southwestern United States and the state has 60% of the reported cases in the United States. *Coccidioides*, the fungus that causes coccidioidomycosis, survives in arid soils and infection is caused by inhaling spores from the aerosolized fungus. Infection usually results in mild or asymptomatic disease; however, the fungus can spread from the lungs to other body sites in about 5% of infections, resulting in disseminated disease. Limited information is available on the causes and impact of disseminated coccidioidomycosis on the state's population.

In 2007 and 2008, the state has interviewed every 10th reported case of coccidioidomycosis (Enhanced Surveillance Project) to identify the risk factors and public health impact of coccidioidomycosis. The Department has detailed information on 493 cases of coccidioidomycosis, including 42 cases of disseminated disease. Preliminary analysis has indicated that some factors may be associated with disseminated disease including race and number of healthcare provider visits. However, data collected by the Department on the impact of coccidioidomycosis relied on self-reported site of infection and many cases did not know or were not able to provide the site of infection. Further analysis and data collection is required to validate the data obtained during the Enhanced Surveillance Project and to generate a report on the epidemiology of disseminated disease in the state.

Timeline for Major Project

October 2009:

- Develop a medical record request form to obtain medical records for cases investigated in the Enhanced Surveillance Project (ESP)
- Conduct literature review on coccidioidomycosis and disseminated disease
- Establish study protocol which includes study design, study population, and research question

November – December 2009:

- Merge ESP case data with reported cases of coccidioidomycosis in the statewide electronic surveillance system (MEDSIS)
 - ESP data include detailed information on risk factors and impact of infection on health care system and individuals.
 - MEDSIS data includes information on reporting physician and detailed laboratory testing information
 - Merged records will be used to identify reporting facilities and to request medical records
- Request medical records for ESP cases
 - Develop system to monitor response rate and request additional records, if needed
- Develop a data abstraction tool to standardize the review of disseminated coccidioidomycosis cases
 - Obtain input from key stakeholders in the coccidioidomycosis investigation at the Department, CDC, and the University

January 2010:

- Develop database to enter data from medical record abstractions
- Finalize study protocol and obtain approval for medical record abstraction tool and database

February – April 2010:

- Review medical records and enter data into the database
- Create analysis plan for study data
- Begin data cleaning and merging of ESP, MEDSIS, and study records

May – June 2010:

- Finalize medical record reviews
- Analyze data
 - Review initial data to identify additional analyses that may be useful
 - Identify missing data and finalize data cleaning

July 2010:

- Finalize data analysis
- Initiate report summarizing data findings

August – October 2010:

- Finalize report of data finding in scientific format (Abstract, Background, Methods, Result, Discussion)

November – December 2010:

- Submit manuscript for publication
- Submit abstract for presentation at 2011 CSTE Annual Conference

5. National, State, or Regional Meetings

Epidemiology and Surveillance Capacity Meeting, October 2009

Council of State and Territorial Epidemiologist Meeting, Portland, OR, June 6 – 10, 2010

National Immunization Conference, Atlanta, GA, April 19 – 22, 2010

Vector-borne and Zoonotic Disease Conference, May 2010

International Conference on Emerging Infectious Diseases, Atlanta, GA, July 11-14, 2010

Coccidioidomycosis Study Group Meeting, April 2011

Council of State and Territorial Epidemiologists Meeting, June 2011

6. Other Work-Related, Work-Group, or Steering Committee Meetings

Foodborne Illness/Food Defense Surveillance and Response Work-Group (10/20/2009, 01/19/2010, 04/20/2010, 07/20/2010, 10/20/2010)

7. Additional Projects/Activities

- Analyze tuberculosis (TB) genotyping results to identify geographical trends or risk factors associated with certain TB genotypes.
- Evaluate laboratory reports of invasive methicillin-resistant *Staphylococcus aureus* (MRSA) infections to determine the feasibility of using MRSA laboratory reports to monitor healthcare-associated infections (HAI).
 - Analyze sites of infection to determine the percentage of bloodstream infections.
 - Review reports to determine the source of collection and identify the percentage of infections that are healthcare-associated.
- Assist with investigations and environmental control measures to prevent Rocky Mountain Spotted Fever infections among Native Americans (*Competency: Write a field investigation report*)
- Assist with outbreak investigations and surveillance activities in the Office of Infectious Disease Services. (*Competency: Write a field investigation report*)
- Evaluate the long-term impact of measles vaccination of infants less than 12 months of age during a measles outbreak

In 2008, the Department of Health and a County Health Department identified a case of measles in a foreign visitor. This case visited a large hospital resulting in several nosocomial exposures. During this outbreak, 14 cases were identified and 17,000 doses of vaccine were administered to the community. As part of public health control measures, accelerated immunization schedules were recommended

for several groups including infants from 6 – 11 months. The CSTE fellow will identify the number of vaccinations these children received and compare vaccination completeness for infants vaccinated during the outbreak compared with unvaccinated children born during the same period.

Activities:

- Obtain data from the State Immunization Information System (SIIS)
- Pull a cohort of children who were eligible to be vaccinated at 6 – 11 months during the outbreak period
- Identify outcomes of children who were vaccinated early including the likelihood that they completed doses, info on SES to identify differences in probability of receiving vaccine
- Review medical records to ensure validity of data recorded in SIIS
- Participate in rotating on-call duties
 - Answer and respond to calls after hours
- Fellowship progress monitoring
 - Weekly discussions with mentors to discuss project and activities progress and additional issues related to the fellowship

Fellow Progress Table

Epidemiologic Methods:	Manner Fulfilled	Date Anticipated:
Design surveillance systems to assess health problems	Develop a surveillance system to capture cases of GBS in infants <90 days	November 2011
Evaluate surveillance systems and know the limitations of surveillance data	Evaluate pertussis surveillance system using CDC Guidelines	March 2010
Design an epidemiologic study to address a health problem	Design a study to evaluate the impact and risk factors for disseminated coccidioidomycosis	May 2010
Design a questionnaire or other data collection tool to address a health problem	Develop medical record abstraction tool to collect data from medical records of suspect pertussis cases	November 2009
Collect health data from appropriate sources (e.g. case interviews, medical records, vital statistics records, laboratory reports, or pathology reports)	- Medical record reviews of pertussis and coccidioidomycosis cases - Interview foodborne and vaccine preventable disease cases	December 2009
Create a database for a health data set	Develop an EpiInfo or Access database to enter medical record abstraction data from pertussis and coccidioidomycosis study	December 2009
Use statistical software to analyze and characterize epidemiologic data	Analyze pertussis surveillance data using SAS	January 2010
Interpret findings from epidemiologic studies, including recognition of the limitations of the data and potential sources of bias and/or confounding.	- Generate a technical report on the impact of disseminated coccidioidomycosis including preparing data for publication (if possible). - Report will include limitations of study design and data collection and analysis methods	May 2011
Recommend control measures, prevention programs, or other public health interventions based on epidemiologic findings	- Recommend control measures for counties based on findings of pertussis evaluation - Provide hospitals with findings and key recommendations from GBS study	June 2010 February 2011

	Recommend control measures for cases of infectious disease and outbreaks	Ongoing
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Communication	Manner Fulfilled:	Date Anticipated:
Write a field investigation report	Conduct an investigation of foodborne illness or other infectious disease outbreak and summarize findings	April 2011
Write a surveillance report	Report on findings of pertussis surveillance evaluation	June 2010
Make an oral presentation using appropriate media	Present data on coccidioidomycosis to Cocci Study Group (a team of researchers from universities)	April 2011
Present data graphically and know how to use graphic software	- Prepare and disseminate weekly and monthly reports on infectious diseases - Generate graphs of influenza-like illness for influenza surveillance program	Ongoing Ongoing
Understand the basics of health risk communication and communicate epidemiologic findings in a manner easily understood by lay audiences	- Take public phone calls on infectious diseases - Assist with the preparation and dissemination of guidance and recommendations for control of H1N1 influenza - Coordinate messages with the Joint Information Center (JIC)	Ongoing December 2009 December 2009
Master's level fellows: present a poster at a national or regional meeting, public a technical report, or prepare a manuscript for publication	Present data on pertussis surveillance evaluation at CSTE Annual Meeting	June 2010

The plan of action will be updated periodically throughout the fellowship to reflect changes and new activities. The following participants in the CDC/CSTE Applied Epidemiology Fellowship program have approved this Plan of Action in its current form:

Fellow Signature: _____

Date: _____

Mentor Signature: _____

Date: _____

Mentor Signature: _____

Date: _____

Quarterly Progress Report

Name:

Date: July 2009

Host Health Agency:

Primary Mentor:

Secondary Mentor:

Note: Activities since the last progress report are in bold.

2. Overview of activities and accomplishments to date according to the Plan of Action.

A. Surveillance project participation:

SURVEILLANCE OF CARBON MONOXIDE POISONINGS:

Surveillance of carbon monoxide (CO) poisonings is a component of the state-funded Environmental Public Health Tracking System (MN EPHT). CO poisoning surveillance began in 2007 with the piloting of national recommendations developed by CDC's national Environmental Public Health Tracking program to track unintentional CO exposure and poisoning. Currently EPHT uses 4 data sources to track carbon monoxide exposure and poisoning: inpatient hospitalizations, emergency department visits, mortality data, and calls to the poison control center.

Activities completed on project:

1. CO data for 2002-2006 were reanalyzed using SAS and previous calculation errors were corrected. Errors and discrepancies were found in CDC's National Recommendations for tracking CO exposure and poisoning, and were addressed in the data analyses. In some cases, the criteria for case selection were modified to better represent the burden of CO exposures and poisonings in Minnesota.
2. Generated SAS code for analysis of CO data. (Previously, MS Excel was used for analysis of CO data.)
3. Gave a presentation on CO exposure/ poisoning data for 2002-2006 to the Department of Health (MDH) Indoor Air Unit. The Indoor Air Unit addresses CO exposure and poisonings through regulation of exhaust emissions in enclosed sports arenas as well as through education of the general public. CO poisoning surveillance allows the Indoor Air Unit to target their education materials and plan programs based on trends of CO poisonings found in the state.
4. A complete indicator profile of carbon monoxide poisonings was completed for the EPHT Tracking Report for years 2002-2006.
5. Met with CO coordinator for the Indoor Air Unit, HSEES coordinator, and syndromic surveillance coordinator to discuss coordination of CO-related activities throughout the agency (Feb. 27, 2009).
6. Obtained CO-related HSEES reports.

Activities since last progress report:

1. **Completed CO indicator report analyses for years 2000-2007.**

B. Other surveillance project participation:
PESTICIDE POISONING SURVEILLANCE

Pesticide-related poisoning and illness has been identified as one of the priority areas for the state. It is also one of the core health effect indicators in CDC's Environmental Public Health Indicators Project; however, unlike CO poisoning surveillance, national recommendations have not yet been fully developed to track pesticide poisonings. This project will develop a set of indicators for pesticide exposure and health outcomes in the state, which will then be piloted and evaluated using hospitalization, emergency department, death certificate, and Poison Control Center call data for 2002-2007.

Recent activities and project status:

1. Literature review conducted on surveillance of pesticide poisonings.
2. Obtained the NIOSH "Pesticide-related Illness and Injury Surveillance: A How-to Guide for State-based Programs" (2006) and have identified possible case definitions for use in the state. Preliminary identification of desired ICD-9-CM codes (for hospitalizations and ED visits), ICD-10 codes (for mortality data), and Toxicall selection criteria (for poison control center calls) was done.
3. Established contact with the Poison Control System as well as with the Syndromic Surveillance coordinator located in the Division of Infectious Disease Epidemiology, Prevention, and Control (IDEPC). IDEPC receives a direct feed of PCC calls where the calltype is exposure, and thus is a potentially useful data source for poison control center call data.
4. Received 2002-2007 data on pesticide poisonings (using guidelines from NIOSH document) from both the Poison Control System as well as from IDEPC, and conducted quantitative comparisons to determine if both sources generate the same pesticide poisoning counts.
5. Established contact with Dan Kass (NYC Dept. Health and Mental Hygiene), who has expressed interest in heading a new content workgroup to develop indicators and measures for pesticide exposure and health outcomes.
6. Attended CDC Tracking Conference; reiterated interest in collaborating with other health agencies on establishing guidelines for pesticide poisoning surveillance (communication with Dan Kass).

Activities since last progress report:

No activities this quarter.

3. **Evaluation project progress:**

EVALUATION OF SURVEILLANCE OF CARBON MONOXIDE POISONINGS

CO poisoning surveillance, a part of MN EPHT, is a passive surveillance system that utilizes mostly administrative datasets as data sources. This project utilizes CDC's *Updated guidelines for evaluating public health surveillance systems: recommendations from the guidelines working group* (2001) in order to evaluate CO poisoning surveillance in the state.

Recent activities and project status:

1. *For inpatient hospitalizations and ED visits:* Consulted data stewards in the Injury and Violence Prevention Unit on how data are processed. Calculated completeness of e-coding. Changed "date" variable to date of admission rather than date of discharge.
2. *For death certificate data:* Verified with nosologist on how CO poisoning deaths are usually coded in the mortality database. Began an analysis comparing the case definition as established in the national recommendations with the case definition developed by data analyst in the Injury and Violence Prevention Unit.
3. *For Poison Control Center call data:* As described in the pesticide poisoning surveillance project, received 2002-2007 data on CO poisonings from the Poison Control System as well as the IDEPC. Conducted quantitative comparison of call data counts, and assessed which source provides the most reliable and simplest data feed into the CO surveillance system.
4. *Exploring additional sources of data:* Located news articles on CO poisoning events occurring in the state in years 2002-2006, and analyzed the amount of overlap between the data obtained from the newspaper articles and the data sources that are already existing in the surveillance system. Also looked into the possibility of utilizing a newspaper clipping service, but this is not feasible due to budget constraints.
5. Started gathering data on which states list CO poisoning as a reportable condition; this data will be useful if the state decides to add CO poisonings to the list of reportable conditions.
6. Calculated specificity of CO poisoning case definition for hospitalizations, ED visits, and mortality. Calculated sensitivity of case definition for CO poisoning deaths.
7. Identified an area of concern re: definition of fire-related CO poisonings in hospitalization and mortality datasets. Consulted with Injury and Violence Prevention Unit (IVPU) regarding discrepancy of CO poisoning case definition in comparison with CSTE case definition and conducted literature review on smoke inhalation injuries and carbon monoxide poisonings.

Activities since last progress report:

1. **Wrote up surveillance evaluation report and presented poster at 2009 CSTE conference.**

4. Bioterrorism preparedness and response activities:

Have not yet played an active role in a preparedness/response activity.

Activities since last progress report:

1. **Completed IS-100 (Introduction to the Incident Command System) online independent study course.**
2. **Completed IS-546 (Continuity of Operations Awareness) online independent study course.**
3. **Attended training on using language line telephone interpretation services.**

5. Progress made on major project:

MEASURING THE IMPACTS OF PARTICULATE MATTER REDUCTIONS BY ENVIRONMENTAL HEALTH OUTCOME INDICATORS:

The goal of this project is to measure the public health impacts of local and national initiatives and policies to reduce particulate matter (PM) emissions. This study will develop and evaluate a set of health outcome indicators in order to track trends in population distribution of PM exposures, as well as time- and population-specific risk measures that associate ambient PM concentrations with respiratory and cardiovascular health outcomes. Ultimately, it will use case-crossover and time series study methodology to link daily mortality and morbidity outcomes (asthma, cardiopulmonary events, and cardiovascular and other respiratory diseases) with ambient pollution concentrations in the Minneapolis-St. Paul seven county metropolitan area and Olmsted County for years 2000-2009. The case-crossover study component is being conducted by the CSTE fellow.

Timetable listing tasks completed through July 31, 2009:

See below for progress made with MEASURING THE IMPACTS OF PARTICULATE MATTER REDUCTIONS BY ENVIRONMENTAL HEALTH OUTCOME INDICATORS:

Year	Mon	Activities (√= Activity Complete)
2008	Aug.	√ Become familiar with EPA grant proposal; read relevant literature cited in proposal √ Review literature on case-crossover studies, PM studies, ambient air quality standards, air quality measurement methods (modeled data, monitored data)
	Sep.	√ Become familiar with data fields in hospitalization, ED visit, and mortality datasets. Also research the advantages and caveats of administrative data. √ Work with biostatistician on descriptive statistics of health outcome data.
	Oct.	√ Read C-CAT manual (computer program developed by CDC for case-crossover analyses) and practice using C-CAT software on sample datasets. √ Meet with project workgroup to learn about communication with air quality subject matter experts at ISEE conference.
	Nov.	√ Work with research team on finalizing an analysis plan. √ Create preliminary analytic datasets using Twin Cities health data and monitored PM2.5 data (continuous monitors; using a single averaged PM2.5 value for all of Twin Cities for each day). √ Conduct exploratory runs of case-crossover analyses using preliminary dataset described above (to make sure that the program will actually work). √ Discussions on exposure data, related to limitations of monitored and modeled data.
	Dec.	√ Conduct a more targeted literature review on PM air pollution case-crossover studies with acute health outcomes. Generate a

		summary reference table that indicates specifics of each study: health outcome, study population, location of study, study period, exposure variable(s), lag variables used for exposure variable, referent/control period, variables considered for stratification or effect modification, covariates/confounders considered, type of relative risk estimate calculated, and measurement of exposure data. √ Data cleaning of mortality data: explore problems in zipcode assignment in mortality data. Attempt to assign zipcodes to missing/invalid zipcodes in the dataset by using SASMAPS. √ Obtain new cut of mortality data with street address level data.
2009	Jan.	√ Data cleaning of mortality data: assess status of mortality data after zipcodes were assigned (geocoding by biostatistician) to cases with originally missing/invalid zipcodes.
	Feb.	√ Obtained daily temperature and humidity data to incorporate into analyses.
	Mar.	√ Used C-CAT software to run more exploratory case-crossover analyses for 2005 data (Twin Cities; continuous monitored data and modeled data). √ Identified several problems with C-CAT software and SAS 9.2
	Apr.	√ Worked with biostatistician to troubleshoot problems with C-CAT software. √ Conference call with C-CAT developer (Joe Abrahams) to address C-CAT issues.
Activities since last report:	May	√ Updated literature review on PM air pollution case-crossover studies, concentrating on modeling strategy (lag times, referent periods, covariates, effect modifiers)
	Jun.	√ Established preliminary modeling strategy. √ Literature review on lag models (single lag model, unconstrained distributed lag model, constrained distributed lag model) √ Ran crude analyses for 7 health outcomes (years 2002-2006) using continuous PM, average temperature, and temperature difference as independent predictors in individual models. Examined several lag structures for PM and temperature variables, and did spline assessment for temperature.
	Jul.	√ Obtained humidity data for years up to 2007. To begin running crude humidity-outcome models, to be incorporated into PM modeling strategy.

6. Participation in cluster/outbreak investigation(s):

Haemophilus influenzae Colonization Survey, 2009

In 2008, 5 cases of *Haemophilus influenzae* serotype b (“Hib”) were seen in children in the state ages ranging from 5 months to 3 years; one child died. This was the highest number of

Hib cases seen since 1992. An ongoing Hib vaccine shortage is suspected to have contributed to the rise in the number of cases in 2008. The rise in the number of invasive Hib cases also raise concern that the proportion of children colonized with Hib is increasing.

As a public health response, the Department enrolled 1,631 children (ages 6 weeks up to 5 years) without recent antibiotic use from 18 clinics throughout the state during February 2 – March 20, 2009. Participants completed a brief questionnaire asking about Hib risk factors and immunization practices and beliefs. An oropharyngeal (OP) swab was collected from each participant and cultured for *H. influenzae*. Vaccination records were compared for receipt of Hib, Diphtheria Tetanus and acellular Pertussis (DTaP), and Pneumococcal (PCV-7) vaccines among participants.

Recent activities and project status:

1. Was called to participate in the survey on January 26, 2009.
2. Traveled to clinics to administer questionnaire and collect OP swab specimens.
3. Data entry/ data cleaning.
4. Located vaccination records of each participant from Immunization Information Connection (IIC) or by contacting providers.
5. Collaborated with EIS officer on following activities:
 - a. Data analysis. Compared receipt of Hib, DTaP, and PCV-7 vaccines among children born following the Hib vaccine shortage (aged 7-15 mo) and among children whose parents reported belief in non-vaccination or use of an alternate vaccination schedule. Compared completion of primary Hib vaccination series (2-dose series vs. 3-dose series) before and during Hib vaccination, and completion of booster dose.
 - b. Submitted abstracts to Midwest Epi conference and EIS conference.

Activities since last progress report:

1. **Completed manuscript for publication on Hib survey and vaccination beliefs/practices among enrolled participants; currently under CDC review.**
2. **Preparing a second manuscript on *H. influenzae* carriage.**

7. Other (updates are in bold font):

Meetings, conferences, or presentations attended:

1. EPHTB Advisory Panel Meeting (1/29/2008)
2. CDC Tracking Conference (2/24/2009 – 2/26-2009)
3. **2009 CSTE Conference (6/7/2009 – 6/11/2009)**

Ongoing Meetings:

1. EPA Grant Indicators Team Meeting (monthly)
2. EPA Grant Analysis Planning Meeting (weekly)
3. EPHT Tracking Meeting (bimonthly/monthly)

Presentations given (date, title, and forum):

1. "Surveillance of Unintentional Carbon Monoxide Poisoning: Environmental Health Tracking and Biomonitoring (EHTB)" (10/20/2008; to the Indoor Air Unit staff in the Division of Environmental Health)
2. **"Evaluation of Carbon Monoxide Poisoning Surveillance" (6/9/2009; 2009 CSTE Annual Conference; Buffalo, NY)**

Training courses, seminar series attended:

1. Data Practices/Security Training (8/21/2008)
2. Microsoft Access Training Part I (11/6/2009)
3. Microsoft Access Training Part II (1/6/2009)
4. SAS Webinars (periodically)
5. Hib Colonization Survey Training (1/29/2009)
6. **ICS-100 Introduction to Incident Command System (5/29/2009)**
7. **Language Line Telephone Interpretation Training (7/8/2009)**
8. **Introduction to GIS & Community Analysis (7/10/2009)**
9. **IS-546 Continuity of Operations Awareness (7/21/2009)**
10. The National Children's Study: Design and Measurements Issues (seminar; 9/29/2008)
11. An Epidemiologic Investigation of Progressive Inflammatory Neuropathy in Abattoir Workers Exposed to Swine Brain (Env. Exposure Grand Rounds seminar; 10/8/2008)
12. Urban Sustainability: Designing Cities for Human Health and the Environment (seminar by Julian Marshall; 12/4/2008)
13. Drugs and Liver Injury (Env. Exposure Grand Rounds seminar; Dr. Dave Roberts; 1/28/2009)

Publications (papers/abstracts/posters):

1. "Evaluation of Carbon Monoxide Poisoning Surveillance" (abstract; submitted for 2009 CSTE Conference)
2. **"Has *Haemophilus influenzae* type b Resurfaced? *H. influenzae* Carriage Study –2009"** (manuscript under CDC review; primary author is Sara Lowther, EIS officer)
3. **"*Haemophilus influenzae* Carriage in Children – 2009"** (manuscript in progress; primary author is Sara Lowther, EIS officer)

Keeping primary and secondary mentors updated of Fellow's progress:

1. Meet weekly for updates on EPA grant.
2. Meet approximately once a month with tracking team for updates on EPHT.
3. Informal "open door" meetings take place as needed.

Summary of overall fellowship experience to date:

Comments:

c. **Fellow comments:**

d. **Mentors' comments:** (see 12-month mentor evaluation)

Epidemiologic Methods:	Manner Fulfilled	Date Anticipated (completed)
Design surveillance systems to assess health problems	Surveillance of pesticide poisonings?	TBD
Evaluate surveillance systems and know the limitations of surveillance data	Evaluation of carbon monoxide poisoning surveillance using CDC guidelines	✓
Role in Bioterrorism/emergency preparedness and response	- Meet with Office of Emergency Preparedness to identify potential activities/tabletop exercises - Completed ICS-100 and IS-546 online trainings.	TBD ✓
Be able to interpret surveillance data	Surveillance of CO poisonings (yrs 2000-2007)	✓
Understand the basic types of study design and the advantages and limitations of each one	- Literature review related to case-crossover study of PM air pollution and health outcomes - Other studies as they arise.	✓
Design an epidemiologic study to address a health problem	Case-crossover study of PM air pollution and health outcomes	Summer 2009 (
Design a questionnaire or other data collection tool to address a health problem	- Expanded occupational surveillance of mesothelioma (pending legislative funding)? - Environmental Health Tracking and Biomonitoring program will be conducting program evaluations in the future; opportunity for questionnaire design there?	TBD
Collect health data from appropriate sources (e.g. case interviews, medical records, vital statistics records, laboratory reports, or pathology reports)	- Surveillance of CO poisonings (yr 2007) ✓ - Administered questionnaires and obtained vaccination records for Hib carriage survey.	✓ ✓
Create a database for a health data set	- Carbon monoxide poisoning surveillance database reformatted and standardized to enable efficient analysis using SAS. - Surveillance of pesticide poisonings?	✓
Use statistical software to analyze and characterize epidemiologic data	- Case-crossover study of PM air pollution and health outcomes - Analysis of surveillance data from CO and pesticide poisonings - Hib Carriage Survey	✓ ✓ ✓
Interpret findings from epidemiologic studies, including recognition of the limitations of the data and potential sources of bias and/or confounding.	- Case-crossover study of PM air pollution and health outcomes - Hib Carriage Survey ✓	pending for case ✓
Recommend control measures, prevention programs, or other public health interventions based on epidemiologic findings	- Case-crossover study of PM air pollution and health outcomes - Findings from analysis of surveillance data from CO and pesticide poisonings	Fall 2009
Communication	Manner Fulfilled:	Date Anticipated (completed)
Write a field investigation report resulting from participation in an outbreak investigation	Hib carriage survey	✓
Write a surveillance report	- CO poisoning surveillance	✓
Understand the basic process for preparing a manuscript for publication*	Attendance at fellowship orientation	✓
Make an oral presentation using appropriate media	- Presentation on CO poisoning surveillance to Indoor Air Quality group in Environmental Health (powerpoint presentation) - Other oral presentations anticipated (pesticide poisoning	✓ TBD

*** indicates Core Competencies addressed in the fellowship orientation curriculum**

Fellow Signature: _____ **Date:**

Mentor Signature: _____ **Date:**

Mentor Signature: _____ **Date:**

SAMPLE