

Opportunity Title:	Healthcare-Associated Infections - Building and Sustain
Offering Agency:	Centers for Disease Control and Prevention
CFDA Number:	
CFDA Description:	
Opportunity Number:	CI07-70402ARRA09
Competition ID:	
Opportunity Open Date:	05/11/2009
Opportunity Close Date:	06/26/2009
Agency Contact:	PGOTIMS E-mail: pgotim@cdc.gov Phone: 770-488-2700

This electronic grants application is intended to be used to apply for the specific Federal funding opportunity referenced here.

If the Federal funding opportunity listed is not the opportunity for which you want to apply, close this application package by clicking on the "Cancel" button at the top of this screen. You will then need to locate the correct Federal funding opportunity, download its application and then apply.

This opportunity is only open to organizations, applicants who are submitting grant applications on behalf of a company, state, local or tribal government, academia, or other type of organization.

* **Application Filing Name:**

Mandatory Documents

Move Form to Complete

Move Form to Delete

Mandatory Documents for Submission

Application for Federal Assistance (SF-424)

Disclosure of Lobbying Activities (SF-LLL)

Project Abstract Summary

Budget Information for Non-Construction Program

HHS Checklist Form PHS-5161

Project Narrative Attachment Form

Budget Narrative Attachment Form

Optional Documents

Other Attachments Form

Move Form to Submission List

Move Form to Delete

Optional Documents for Submission

Instructions

- 1** Enter a name for the application in the **Application Filing Name** field.
 - This application can be completed in its entirety offline; however, you will need to login to the Grants.gov website during the submission process.
 - You can save your application at any time by clicking the "Save" button at the top of your screen.
 - The "Save & Submit" button will not be functional until all required data fields in the application are completed and you clicked on the "Check Package for Errors" button and confirmed all data required data fields are completed.

- 2** Open and complete all of the documents listed in the **"Mandatory Documents"** box. Complete the SF-424 form first.
 - It is recommended that the SF-424 form be the first form completed for the application package. Data entered on the SF-424 will populate data fields in other mandatory and optional forms and the user cannot enter data in these fields.
 - The forms listed in the "Mandatory Documents" box and "Optional Documents" may be predefined forms, such as SF-424, forms where a document needs to be attached, such as the Project Narrative or a combination of both. "Mandatory Documents" are required for this application. "Optional Documents" can be used to provide additional support for this application or may be required for specific types of grant activity. Reference the application package instructions for more information regarding "Optional Documents".
 - To open and complete a form, simply click on the form's name to select the item and then click on the => button. This will move the document to the appropriate "Documents for Submission" box and the form will be automatically added to your application package. To view the form, scroll down the screen or select the form name and click on the "Open Form" button to begin completing the required data fields. To remove a form/document from the "Documents for Submission" box, click the document name to select it, and then click the <= button. This will return the form/document to the "Mandatory Documents" or "Optional Documents" box.
 - All documents listed in the "Mandatory Documents" box must be moved to the "Mandatory Documents for Submission" box. When you open a required form, the fields which must be completed are highlighted in yellow with a red border. Optional fields and completed fields are displayed in white. If you enter invalid or incomplete information in a field, you will receive an error message.

- 3** Click the **"Save & Submit"** button to submit your application to Grants.gov.
 - Once you have properly completed all required documents and attached any required or optional documentation, save the completed application by clicking on the "Save" button.
 - Click on the "Check Package for Errors" button to ensure that you have completed all required data fields. Correct any errors or if none are found, save the application package.
 - The "Save & Submit" button will become active; click on the "Save & Submit" button to begin the application submission process.
 - You will be taken to the applicant login page to enter your Grants.gov username and password. Follow all onscreen instructions for submission.

Application for Federal Assistance SF-424

Version 02

* 1. Type of Submission: <input type="checkbox"/> Preapplication <input checked="" type="checkbox"/> Application <input type="checkbox"/> Changed/Corrected Application	* 2. Type of Application: <input checked="" type="checkbox"/> New <input type="checkbox"/> Continuation <input type="checkbox"/> Revision	* If Revision, select appropriate letter(s): <input type="text"/> * Other (Specify) <input type="text"/>
--	--	---

* 3. Date Received: <input type="text" value="06/23/2009"/>	4. Applicant Identifier: <input type="text"/>
--	--

5a. Federal Entity Identifier: <input type="text"/>	* 5b. Federal Award Identifier: <input type="text"/>
--	---

State Use Only:

6. Date Received by State: <input type="text"/>	7. State Application Identifier: <input type="text"/>
---	---

8. APPLICANT INFORMATION:

* a. Legal Name:

* b. Employer/Taxpayer Identification Number (EIN/TIN): <input type="text" value="02-6000618"/>	* c. Organizational DUNS: <input type="text" value="011040545"/>
--	---

d. Address:

* Street1:
Street2:
* City:
County:
* State:
Province:
* Country:
* Zip / Postal Code:

e. Organizational Unit:

Department Name: <input type="text" value="Health and Human Services"/>	Division Name: <input type="text" value="Public Health Services"/>
--	---

f. Name and contact information of person to be contacted on matters involving this application:

Prefix: * First Name:
Middle Name:
* Last Name:
Suffix:

Title:

Organizational Affiliation:

* Telephone Number: Fax Number:

* Email:

Application for Federal Assistance SF-424

Version 02

9. Type of Applicant 1: Select Applicant Type:

A: State Government

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

* Other (specify):

*** 10. Name of Federal Agency:**

Centers for Disease Control and Prevention

11. Catalog of Federal Domestic Assistance Number:

CFDA Title:

*** 12. Funding Opportunity Number:**

CI07-70402ARRA09

* Title:

Healthcare-Associated Infections - Building and Sustaining State Programs to Prevent Healthcare-associated Infections

13. Competition Identification Number:

Title:

14. Areas Affected by Project (Cities, Counties, States, etc.):

Statewide

*** 15. Descriptive Title of Applicant's Project:**

NH Healthcare Associated Infections Surveillance and Reporting Program

Attach supporting documents as specified in agency instructions.

Add Attachments

Delete Attachments

View Attachments

Application for Federal Assistance SF-424

Version 02

16. Congressional Districts Of:

* a. Applicant

* b. Program/Project

Attach an additional list of Program/Project Congressional Districts if needed.

17. Proposed Project:

* a. Start Date:

* b. End Date:

18. Estimated Funding (\$):

* a. Federal	<input type="text" value="737,551.42"/>
* b. Applicant	<input type="text" value="0.00"/>
* c. State	<input type="text" value="0.00"/>
* d. Local	<input type="text" value="0.00"/>
* e. Other	<input type="text" value="0.00"/>
* f. Program Income	<input type="text" value="0.00"/>
* g. TOTAL	<input type="text" value="737,551.42"/>

*** 19. Is Application Subject to Review By State Under Executive Order 12372 Process?**

- a. This application was made available to the State under the Executive Order 12372 Process for review on .
- b. Program is subject to E.O. 12372 but has not been selected by the State for review.
- c. Program is not covered by E.O. 12372.

*** 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes", provide explanation.)**

Yes No

21. *By signing this application, I certify (1) to the statements contained in the list of certifications and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 218, Section 1001)**

** I AGREE

** The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

Authorized Representative:

Prefix: * First Name:

Middle Name:

* Last Name:

Suffix:

* Title:

* Telephone Number: Fax Number:

* Email:

* Signature of Authorized Representative: * Date Signed:

Application for Federal Assistance SF-424

Version 02

*** Applicant Federal Debt Delinquency Explanation**

The following field should contain an explanation if the Applicant organization is delinquent on any Federal Debt. Maximum number of characters that can be entered is 4,000. Try and avoid extra spaces and carriage returns to maximize the availability of space.

Project Abstract Summary

Program Announcement (CFDA)

*** Program Announcement (Funding Opportunity Number)**

*** Closing Date**

*** Applicant Name**

*** Length of Proposed Project**

Application Control No.

Federal Share Requested (for each year)

*** Federal Share 1st Year**

\$

*** Federal Share 2nd Year**

\$

*** Federal Share 3rd Year**

\$

*** Federal Share 4th Year**

\$

*** Federal Share 5th Year**

\$

Non-Federal Share Requested (for each year)

*** Non-Federal Share 1st Year**

\$

*** Non-Federal Share 2nd Year**

\$

*** Non-Federal Share 3rd Year**

\$

*** Non-Federal Share 4th Year**

\$

*** Non-Federal Share 5th Year**

\$

*** Project Title**

Project Abstract Summary

* Project Summary

The New Hampshire Department of Health and Human Services (NH DHHS) has been actively engaged in developing a healthcare-associated infections (HAI) surveillance program since 2007. During the 2006 legislative season, the New Hampshire legislature passed a bill creating NH RSA 151:32-35, which requires hospitals to identify, track, and report HAIs to NH DHHS effective July 1, 2007. During the last two years, NH DHHS has made progress towards implementing HAI reporting in NH, however, without a dedicated HAI Program Coordinator, full implementation of the program has not occurred. While some progress has been made, currently there are no resources to use the reported data for its intended purpose or for infection prevention. Specifically, there are no resources to train hospitals, implement a data validation plan, or conduct data analyses and prepare data reports.

NH DHHS proposes to enhance current HAI reporting and prevention activities in the State through the following activities, 1.) development of an HAI Prevention Plan to guide activities, 2.) providing support and training to hospital reporting staff, 3.) enabling electronic laboratory reporting to automate data submission from hospitals to the National Healthcare Safety Network, 4.) validating data reports received at the State, and 5.) producing reports on the incidence of two targeted infections (central line-associated bloodstream infections and surgical site infections). Additionally, NH DHHS proposes building infection prevention expertise within the state by offering highly specialized training to hospital and State staff. NH DHHS also proposes collaboration with ongoing infection prevention initiatives in the state, specifically around hand hygiene compliance, which has the potential to decrease all healthcare-associated infections. Rates of infections associated with central lines and surgical site infections will be monitored to evaluate program effectiveness. Together these activities will enhance the HAI reporting infrastructure in New Hampshire and contribute to improved prevention and reporting capacity after expiration of awarded funds.

* Estimated number of people to be served as a result of the award of this grant.

1315809

DISCLOSURE OF LOBBYING ACTIVITIES

Complete this form to disclose lobbying activities pursuant to 31 U.S.C.1352

Approved by OMB
0348-0046

1. * Type of Federal Action: <input type="checkbox"/> a. contract <input checked="" type="checkbox"/> b. grant <input type="checkbox"/> c. cooperative agreement <input type="checkbox"/> d. loan <input type="checkbox"/> e. loan guarantee <input type="checkbox"/> f. loan insurance	2. * Status of Federal Action: <input type="checkbox"/> a. bid/offer/application <input checked="" type="checkbox"/> b. initial award <input type="checkbox"/> c. post-award	3. * Report Type: <input checked="" type="checkbox"/> a. initial filing <input type="checkbox"/> b. material change
--	--	--

4. Name and Address of Reporting Entity:
 Prime SubAwardee

* Name: NH Division of Public Health Services

* Street 1: 29 Hazen Drive * Street 2: _____

* City: Concord * State: NH: New Hampshire * Zip: 03301

Congressional District, if known: 2

5. If Reporting Entity in No.4 is Subawardee, Enter Name and Address of Prime:

6. * Federal Department/Agency: US Dept. of Health & Human Services/CDC	7. * Federal Program Name/Description: _____ CFDA Number, if applicable: _____
---	---

8. Federal Action Number, if known: _____	9. Award Amount, if known: \$ _____
---	---

10. a. Name and Address of Lobbying Registrant:

Prefix _____ * First Name N/A Middle Name _____

* Last Name N/A Suffix _____

* Street 1 _____ * Street 2 _____

* City _____ * State _____ * Zip _____

b. Individual Performing Services (including address if different from No. 10a)

Prefix _____ * First Name N/A Middle Name _____

* Last Name N/A Suffix _____

* Street 1 _____ * Street 2 _____

* City _____ * State _____ * Zip _____

11. Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when the transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

* Signature: Mary Holliday

* Name: Prefix _____ * First Name José Middle Name Thier
* Last Name Montero Suffix MD

Title: Director, Division of Public Health Services Telephone No.: 603-271-4501 Date: 06/23/2009

BUDGET INFORMATION - Non-Construction Programs

SECTION A - BUDGET SUMMARY

Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1. Epidemiology and Laboratory Capacity - Healthcare Associated Infections (ARRA)	93.717	\$ 0.00	\$ 0.00	\$ 737,551.42	\$ 0.00	\$ 737,551.42
2.						
3.						
4.						
5. Totals		\$	\$	\$ 737,551.42	\$	\$ 737,551.42

SECTION B - BUDGET CATEGORIES

6. Object Class Categories	GRANT PROGRAM, FUNCTION OR ACTIVITY				Total (5)
	(1)	(2)	(3)	(4)	
	Epidemiology and Laboratory Capacity - Healthcare Associated Infections (ARRA)				
a. Personnel	\$ 142,919.00	\$	\$	\$	142,919.00
b. Fringe Benefits	57,462.00				57,462.00
c. Travel	25,636.00				25,636.00
d. Equipment	32,000.00				32,000.00
e. Supplies	46,999.42				46,999.42
f. Contractual	280,000.00				280,000.00
g. Construction	0.00				
h. Other	152,535.00				152,535.00
i. Total Direct Charges (sum of 6a-6h)	737,551.42				\$ 737,551.42
j. Indirect Charges					
k. TOTALS (sum of 6i and 6j)	\$ 737,551.42	\$	\$	\$	737,551.42
7. Program Income	\$ 0.00	\$	\$	\$	

Authorized for Local Reproduction

SECTION C - NON-FEDERAL RESOURCES

(a) Grant Program		(b) Applicant	(c) State	(d) Other Sources	(e) TOTALS
8.	Epidemiology and Laboratory Capacity - Healthcare Associated Infections (ARRA)	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
9.					
10.					
11.					
12.	TOTAL (sum of lines 8-11)	\$	\$	\$	\$

SECTION D - FORECASTED CASH NEEDS

		1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
13.	Federal	\$	\$	\$	\$
14.	Non-Federal	\$	\$	\$	\$
15.	TOTAL (sum of lines 13 and 14)	\$	\$	\$	\$

SECTION E - BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT

(a) Grant Program		FUTURE FUNDING PERIODS (YEARS)			
		(b) First	(c) Second	(d) Third	(e) Fourth
16.	Epidemiology and Laboratory Capacity - Healthcare Associated Infections (ARRA)	\$	\$	\$	\$
17.					
18.					
19.					
20.	TOTAL (sum of lines 16 - 19)	\$	\$	\$	\$

SECTION F - OTHER BUDGET INFORMATION

21.	Direct Charges:	
22.	Indirect Charges:	Support costs, listed under "H. Other" are

23. Remarks: collected based on a cost allocation plan approved by the federal Department of Health and Human Services in a letter (see attached) on November 19, 2003.

CHECKLIST

Public Burden Statement:

Public reporting burden of this collection of information is estimated to average 4 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to CDC,

Clearance Officer, 1600 Clifton Road, MS D-24, Atlanta, GA 30333, ATTN: PRA (0920-0428). Do not send the completed form to this address.

NOTE TO APPLICANT:

This form must be completed and submitted with the original of your application. Be sure to complete both sides of this form. Check the appropriate boxes and provide the information requested. This form should be attached as the last page of the signed original of the application. This page is reserved for PHS staff use only.

Type of Application: NEW Noncompeting Continuation Competing Continuation Supplemental

PART A: The following checklist is provided to assure that proper signatures, assurances, and certifications have been submitted.

	Included	NOT Applicable
1. Proper Signature and Date	<input checked="" type="checkbox"/>	
2. Proper Signature and Date on PHS-5161-1 "Certifications" page.	<input checked="" type="checkbox"/>	
3. Proper Signature and Date on appropriate "Assurances" page, i.e., SF-424B (Non-Construction Programs) or SF-424D (Construction Programs)	<input checked="" type="checkbox"/>	
4. If your organization currently has on file with DHHS the following assurances, please identify which have been filed by indicating the date of such filing on the line provided. (All four have been consolidated into a single form, HHS Form 690)		
<input checked="" type="checkbox"/> Civil Rights Assurance (45 CFR 80)		<input type="text" value="06/28/1996"/>
<input checked="" type="checkbox"/> Assurance Concerning the Handicapped (45 CFR 84)		<input type="text" value="06/28/1996"/>
<input checked="" type="checkbox"/> Assurance Concerning Sex Discrimination (45 CFR 86)		<input type="text" value="06/28/1996"/>
<input checked="" type="checkbox"/> Assurance Concerning Age Discrimination (45 CFR 90 & 45 CFR 91)		<input type="text" value="06/28/1996"/>
5. Human Subjects Certification, when applicable (45 CFR 46)	<input type="checkbox"/>	<input checked="" type="checkbox"/>

PART B: This part is provided to assure that pertinent information has been addressed and included in the application.

	YES	NOT Applicable
1. Has a Public Health System Impact Statement for the proposed program/project been completed and distributed as required?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Has the appropriate box been checked on the SF-424 (FACE PAGE) regarding intergovernmental review under E.O. 12372 ? (45 CFR Part 100)	<input checked="" type="checkbox"/>	
3. Has the entire proposed project period been identified on the SF-424?.....	<input checked="" type="checkbox"/>	
4. Have biographical sketch(es) with job description(s) been attached, when required?.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Has the "Budget Information" page, SF-424A (Non-Construction Programs) or SF-424C (Construction Programs), been completed and included?	<input checked="" type="checkbox"/>	
6. Has the 12 month detailed budget been provided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7. Has the budget for the entire proposed project period with sufficient detail been provided?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8. For a Supplemental application, does the detailed budget address only the additional funds requested?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9. For Competing Continuation and Supplemental applications, has a progress report been included?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

PART C: In the spaces provided below, please provide the requested information.

Business Official to be notified if an award is to be made

Name: Prefix: * First Name: Middle Name:
 * Last Name: Suffix:

Title:

Organization:

Address: * Street1:

Street 2:

* City:

* State: Province:

* Country: * Zip / Postal Code:

* Telephone Number:

E-mail Address:

Fax Number:

APPLICANT ORGANIZATION'S 12-DIGIT DHHS EIN (If already assigned)

- -

PART C (Continued): In the spaces provided below, please provide the requested information.

Program Director/Project Director/Principal Investigator designated to direct the proposed project

Name: Prefix:	<input type="text"/>	* First Name:	<input type="text" value="Christine"/>	Middle Name:	<input type="text" value="Louise"/>
	* Last Name:	<input type="text" value="Bean"/>		Suffix:	<input type="text" value="PhD"/>
Title:	<input type="text" value="Laboratory Director"/>				
Organization:	<input type="text" value="NH Public Health Laboratories"/>				
Address:	* Street1:	<input type="text" value="29 Hazen Drive"/>			
	Street2:	<input type="text"/>			
	* City:	<input type="text" value="Concord"/>			
	* State:	<input type="text" value="NH: New Hampshire"/>	Province:	<input type="text"/>	
	* Country:	<input type="text" value="USA: UNITED STATES"/>	* Zip / Postal Code:	<input type="text" value="03301-6504"/>	
* Telephone Number:	<input type="text" value="603-271-4657"/>				
E-mail Address:	<input type="text" value="clbean@dhhs.state.nh.us"/>				
Fax Number:	<input type="text" value="603-271-4760"/>				

SOCIAL SECURITY NUMBER**HIGHEST DEGREE EARNED****PART D: A private, nonprofit organization must include evidence of its nonprofit status with the application. Any of the following is acceptable evidence. Check the appropriate box or complete the "Previously Filed" section, whichever is applicable.**

- (a) A reference to the organization's listing in the Internal Revenue Service's (IRS) most recent list of tax-exempt organizations described in section 501(c)(3) of the IRS Code.
- (b) A copy of a currently valid Internal Revenue Service Tax exemption certificate.
- (c) A statement from a State taxing body, State Attorney General, or other appropriate State official certifying that the applicant organization has a nonprofit status and that none of the net earnings accrue to any private shareholders or individuals.
- (d) A certified copy of the organization's certificate of incorporation or similar document if it clearly establishes the nonprofit status of the organization.
- (e) Any of the above proof for a State or national parent organization, and a statement signed by the parent organization that the applicant organization is a local nonprofit affiliate.

If an applicant has evidence of current nonprofit status on file with an agency of PHS, it will not be necessary to file similar papers again, but the place and date of filing must be indicated.

Previously Filed with: * (Agency)

on * (Date)

INVENTIONS

If this is an application for continued support, include: (1) the report of inventions conceived or reduced to practice required by the terms and conditions of the grant; or (2) a list of inventions already reported, or (3) a negative certification.

EXECUTIVE ORDER 12372

Effective September 30, 1983, Executive Order 12372 (Intergovernmental Review of Federal Programs) directed OMB to abolish OMB Circular A-95 and establish a new process for consulting with State and local elected officials on proposed Federal financial assistance. The Department of Health and Human Services implemented the Executive Order through regulations at 45 CFR Part 100 (Inter-governmental Review of Department of Health and Human Services Programs and Activities). The objectives of the Executive Order are to (1) increase State flexibility to design a consultation process and select the programs it wishes to review, (2) increase the ability of State and local elected officials to influence Federal decisions and (3) compel Federal officials to be responsive to State concerns, or explain the reasons.

The regulations at 45 CFR Part 100 were published in *Federal Register* on June 24, 1983, along with a notice identifying the

Department's programs that are subject to the provisions of Executive Order 12372. Information regarding PHS programs subject to Executive Order 12372 is also available from the appropriate awarding office.

States participating in this program establish State Single Points of Contact (SPOCs) to coordinate and manage the review and comment on proposed Federal financial assistance. Applicants should contact the Governor's office for information regarding the SPOC, programs selected for review, and the consultation (review) process designed by their State.

Applicants are to certify on the face page of the SF-424 (attached) whether the request is for a program covered under Executive Order 12372 and, where appropriate, whether the State has been given an opportunity to comment.

Project Narrative File(s)

* **Mandatory Project Narrative File Filename:**

[Add Mandatory Project Narrative File](#)

[Delete Mandatory Project Narrative File](#)

[View Mandatory Project Narrative File](#)

To add more Project Narrative File attachments, please use the attachment buttons below.

[Add Optional Project Narrative File](#)

[Delete Optional Project Narrative File](#)

[View Optional Project Narrative File](#)

Budget Narrative File(s)

* **Mandatory Budget Narrative Filename:**

[Add Mandatory Budget Narrative](#)

[Delete Mandatory Budget Narrative](#)

[View Mandatory Budget Narrative](#)

To add more Budget Narrative attachments, please use the attachment buttons below.

[Add Optional Budget Narrative](#)

[Delete Optional Budget Narrative](#)

[View Optional Budget Narrative](#)

Funding Opportunity Number: CI07-70402ARRA09

Epidemiology and Laboratory Capacity for Infectious Diseases (ELC)

**Healthcare-Associated Infections - Building and Sustaining State Programs to Prevent
Healthcare-associated Infections**

Application for Funding

New Hampshire Department of Health and Human Services

Division of Public Health Services

June 26, 2009

PROJECT ABSTRACT

The New Hampshire Department of Health and Human Services (NH DHHS) has been actively engaged in developing a healthcare-associated infections (HAI) surveillance program since 2007. During the 2006 legislative season, the New Hampshire legislature passed a bill creating NH RSA 151:32-35, which requires hospitals to identify, track, and report HAI to NH DHHS effective July 1, 2007. During the last two years, NH DHHS has made progress towards implementing HAI reporting in NH, however, without a dedicated fulltime HAI Program Coordinator, full implementation of the program has not occurred. While some progress has been made, currently there are no resources to use the reported data for its intended purpose or for infection prevention. Specifically, there are no resources to train hospitals, implement a data validation plan, or conduct data analyses and prepare data reports.

NH DHHS proposes to enhance current HAI reporting and prevention activities in the State through the following activities: 1.) development of a State HAI Prevention Plan to guide activities that is consistent with the HHS Action Plan to Prevent HAI, 2.) providing support and training to hospital reporting staff, 3.) enabling electronic laboratory reporting to automate data submission from hospitals to the National Healthcare Safety Network, 4.) validating data reports received at the State, and 5.) producing reports on the incidence of two targeted infections (central line-associated bloodstream infections and surgical site infections). Additionally, NH DHHS proposes building infection prevention expertise within the state by offering highly specialized training to hospital and State staff. NH DHHS also proposes collaboration with ongoing infection prevention initiatives in the state, specifically around hand hygiene compliance, which has the potential to decrease all healthcare-associated infections. Rates of infections associated with central lines and surgical site infections will be monitored to evaluate prevention program effectiveness. Together these activities will enhance the HAI reporting infrastructure in New Hampshire and contribute to improved prevention and reporting capacity after expiration of awarded funds.

PROJECT NARRATIVE

BACKGROUND AND NEED

The New Hampshire Department of Health and Human Services (NH DHHS) has been actively engaged in developing a healthcare-associated infections (HAI) surveillance program since 2007. During the 2006 legislative season, the New Hampshire legislature passed a bill creating NH RSA 151:32-35, which requires hospitals to identify, track, and report HAIs to NH DHHS effective July 1, 2007. RSA 151:33 specifically requires reporting of central line-associated blood stream infections (CLABSI), surgical site infections (SSI), ventilator-associated pneumonia (VAP), central line insertion practices (CLIP), surgical antimicrobial prophylaxis (SAP), and influenza vaccination rates. The intent of the law is to provide HAI data by hospital in a publicly accessible forum (e.g. website) for hospital comparison. The passage of the 2006 bill did not include funding to carry out these activities, and as such, mandatory reporting was not implemented in July 2007 as directed. However, without funding, NH DHHS has made progress in implementing an HAI surveillance program as described in the following section, "Accomplishments and Proven Capacity."

All surveillance activities to date have been performed with no funding and no dedicated fulltime staff. This work has been coordinated by the Acting Chief of the Communicable Disease Surveillance Section, who in addition to administratively managing the unit, also serves as foodborne disease epidemiologist. NH DHHS has minimal in-house HAI or healthcare epidemiology expertise. Therefore, while NH DHHS has successfully facilitated NHSN enrollment, without a dedicated fulltime HAI Program Coordinator, the program cannot be further developed. Currently there are no resources to use the reported data for its intended purpose or for infection prevention. Specifically, there are no resources to train hospitals, implement a data validation plan, or conduct data analyses and prepare data reports.

In addition to the described surveillance activities, NH DHHS has participated in statewide prevention activities through the NH Healthcare Quality Assurance Commission, on which the NH DHHS State Epidemiologist serves. Currently there are no prevention activities being coordinated by NH DHHS. Major statewide initiatives currently in place through the NH Healthcare Quality Assurance Commission include the following:

1. High Five for a Healthy New Hampshire: Five-component statewide initiative to monitor and improve hand hygiene rates among all levels of healthcare workers and includes 1) leadership commitment, 2) availability of products, 3) hand hygiene training and competency verification, 4) measurement, and 5) feedback and accountability.
2. WHO Universal Protocol Safety Checklist for Surgical Care: Statewide initiative to pilot the World Health Organization surgical safety checklist which encompasses essential standards of surgical care and is designed to be simple, widely applicable, and to address common and potentially disastrous lapses in practice.
3. STOP BSI: Two-year program to reduce the occurrence of CLABSI developed by Johns Hopkins University Quality and Safety Research Group in partnership with the Michigan Health & Hospital Association Keystone Center. The improvement model includes a checklist, staff training, leadership involvement, collection of surveillance data, and analysis and discussion of defects.

NH DHHS has a clear need for a dedicated fulltime HAI Surveillance Coordinator with HAI-related expertise. Since the passage of the mandatory reporting bill, there have been several unsuccessful efforts to acquire funding for such a position including legislation to provide state funds for the program and applying for funds through the base ELC cooperative agreement. There is currently a bill in the NH legislature that provides funding for the State HAI program through a hospital fee system. At the time of this application, the bill has passed in the House of Representatives and the Senate and is awaiting final approval. Should the bill receive final approval, the hospital fee system, which would likely not go into effect until 2011, will provide long term funding for the HAI Surveillance Coordinator after Recovery Act funding expires.

In addition to a HAI Surveillance Coordinator, funding through this opportunity would significantly enhance HAI surveillance and prevention expertise in the state through provision of workforce development, training, and educational resources. Furthermore, funding would improve timeliness and quality of data reported through NHSN by providing resources to conduct validation and training as well as resources to explore and implement electronic laboratory reporting and HL7 messaging. Finally, funding would enhance and improve performance of the current hand-hygiene collaborative, in which all 26 acute care hospitals in NH participate with the goal of reducing healthcare-associated infections across the spectrum of healthcare provided in a hospital.

ACCOMPLISHMENTS AND PROVEN CAPACITY

In 2007, after passage of the 2006 bill mandating reporting of HAI to NH DHHS without providing funding or positions to implement these activities, NH DHHS began engaging partners to consider possible approaches on how the law could be implemented. These partners included the NH Healthcare Quality Assurance Commission and the NH Infection Control and Epidemiology Professionals, the state infection control practitioner association. This workgroup initially decided to conduct a small pilot project in the first half of 2008 to test the use of NHSN for mandatory HAI reporting. Four acute care hospitals reported SSI in knee arthroplasties and CLABSI in one inpatient unit for the 6-month pilot project. At the completion of the pilot project, NH DHHS officially decided to use NHSN for mandatory reporting.

In September 2008, NH DHHS notified the 26 acute care hospitals in NH that they would be required to enroll in NHSN and report the mandated HAI data beginning January 1st, 2009. NH DHHS, with consideration of the law, required that hospitals initially report the following measures:

- Central line-associated blood stream infections in adult intensive care units (via NHSN)
- Central line insertion practices in all adult intensive care units (via NHSN)
- Surgical site infections following coronary artery bypass graft, colon surgeries, and knee arthroplasty (via NHSN)
- Surgical antimicrobial prophylaxis (via Centers for Medicare and Medicaid Services)
- Influenza Vaccination in patients and staff (via NH DHHS web survey)
- Ventilator-associated pneumonia is not being monitored at this time

With the support of CDC staff and the NH Healthcare Quality Assurance Commission, NH DHHS coordinated a one-day training for hospital quality, infection prevention, and information technology staff in November 2008 to review reporting requirements, NHSN definitions, and the NHSN enrollment and reporting processes.

At the time of this application for funding, all 26 acute care hospitals have successfully enrolled in NHSN and conferred data rights to NH DHHS. In addition to determining surveillance methods and reporting requirements, NH DHHS has attended CDC NHSN and CSTE HAI monthly national partner calls and provided technical assistance to hospitals.

In the spring of 2009, NH DHHS formed a HAI Technical Advisory Workgroup. The purpose of the Technical Advisory Workgroup (TAW) is to provide scientific and infection prevention expertise to the NH DHHS HAI Reporting Program. The TAW is not intended to be an oversight group, but instead a forum for stakeholder participation in decision making around the NH HAI Program. The TAW is a 13-member group that includes representation from stakeholders across NH and includes representatives from various size and types of hospitals and infection control associations, the NH Hospital Association, and the NH Healthcare Quality Assurance Commission. The first meeting of the TAW occurred on June 2nd, 2009.

Despite lack of a dedicated fulltime staff member to implement the HAI reporting and prevention program, NH DHHS has demonstrated a commitment to developing a surveillance program and participating in statewide prevention activities. Because some of this work has already been done, if funded, NH DHHS is ready and anxious to pursue hiring of a dedicated fulltime HAI Program Coordinator to continue and further develop the work that has been started. Until such time that an HAI Program Coordinator is hired, NH DHHS will have existing staff complete all federal requirements including development of the State HAI Plan such that Activities B and C can be implemented immediately upon hire of the HAI Program Coordinator.

The State of New Hampshire has established an Office of Economic Stimulus and created specific policies and protocols that allow all ARRA-related contracts, hiring, and requests for proposals to be expedited through administrative processes. Administrative arrangements are being made at the time of this application so that hiring can occur immediately upon award of any funds through this funding opportunity. This includes preparing the supplemental job description and job posting information for Human Resources review and approval, having the position posted, and interviewing applicants while waiting for an award decision. NH DHHS staff will prepare ahead of time the necessary state authority documents to forward to management and the Governor and Executive Council. Finally, in order to enter into the proposed contracts quickly and efficiently, NH DHHS can issue Requests for Proposals immediately such that contracts can be awarded when the money arrives and not use up valuable time with administrative functions. NH DHHS will follow all state established procedures to insure effective and legal contracts.

In terms of experience entering into formal agreements with firms with HAI prevention expertise, NH DHHS has not had any recent experience, however, NH DHHS has established numerous contracts with firms that provide services similar to those for which we are requesting funding for. The contracts proposed in this application include contracting with an agency to conduct an assessment and provide funds to hospitals to enable data messaging, contracting with an agency to provide educational training, and contracting with an agency to develop a state-specific data validation plan. NH DHHS has previously contracted with the NH Hospital Association to provide funding to hospitals to enable HL7 messaging to a state emergency department surveillance system; the proposed contract in this application is modeled on this previous partnership. NH DHHS has also previously partnered numerous times with agencies to provide training and does so several times each year. Contracting with an agency to develop a state-specific data validation plan will be a new experience for NH DHHS, but one for which we do not anticipate any barriers or challenges.

PROJECT WORK PLAN

Activity A: Coordination and Reporting of State HAI Prevention Efforts

Objective A1: Develop and maintain the State HAI Prevention Plan to guide surveillance and prevention activities in New Hampshire.

Method/Plan: The NH Communicable Disease Surveillance Section (CDSS) requests funds to hire a full time HAI Program Coordinator (HAIPC) who will be responsible for developing and maintaining the State HAI Prevention Plan in accordance with federal requirements. The HAIPC will work with the Technical Advisory Workgroup (TAW) to develop a plan for surveillance, education, and prevention activities in New Hampshire, which will be guided by the federal Department of Health and Human Services’ Action Plan to Prevent Healthcare-Associated Infections. The state plan will include a plan for reporting aggregate state data quarterly to CDC from hospitals on two HHS metrics (CLABSI and SSI) by 2010. The plan will prioritize state HAI-related activities to assist in prioritizing activities after funding from this opportunity is exhausted and to provide rationale for continued state financial support of the HAIPC activities. The work of the position will be well-aligned with current state legislation that mandates the reporting of HAI to NH DHHS and legislation that created the NH Healthcare Quality Commission. The position provides the resources needed by NH DHHS to fully implement HAI surveillance and to participate in and guide statewide prevention efforts. One new job will be created under this activity (see Appendices “Organizational Chart” and “Supplemental Job Description”). The work of this position will be supervised by the Chief of the Communicable Disease Surveillance Section (CDSS), who is currently the staff member coordinating all HAI-related activities at the State (see Appendix *Curricula Vitae*).

Task	Start Date	End Date	Staff
Hire staff member to serve as HAIPC	Aug 30, 2009	Position Filled	CDSS
Use HHS Action Plan as model to develop State HAI Plan draft version	Aug 30, 2009	Nov 2009	CDSS, HAIPC
Organize meeting of TAW to review and discuss draft of State HAI Plan	Sept 2009	Oct 2009	CDSS, HAIPC
Finalize HAI Plan and submit to HHS	Nov 1, 2009	Dec 31, 2009	CDSS, HAIPC
Implement and maintain State HAI Plan	Jan 1, 2010	Dec 31, 2011	HAIPC
In accordance with State HAI Plan, collect and determine state baseline data for two HHS prevention targets	Jan 1, 2010	Mar 30, 2009	HAIPC
Submit quarterly reports on HHS prevention targets	Jan 1, 2010	Dec 31, 2011	HAIPC
Review and update State HAI Plan with TAW annually	Jan 1, 2010	Dec 31, 2011	HAIPC

Evaluation Criteria: State HAI Program Coordinator identified by January 1, 2010. TAW convened for review and discussion of State HAI Plan by November 30, 2009. State HAI Plan

submitted to HHS by January 1, 2010 and later approved by HHS. State baselines for HHS Prevention targets determined with quarterly reporting to CDC established in 2010.

Staffing and Sustainability: The activities under this objective will be completed primarily by the full time (1 FTE) position (HAIPC) being requested through this funding opportunity. Until such time the position is filled, the work will continue to be completed by the Acting Chief of the CDSS. Throughout the funding period, the HAIPC will coordinate all activities with support from the Chief of CDSS and the staff epidemiologist. At the completion of the funding period, the funded HAIPC position will stay filled with a different source of funding. All activities under this objective will be sustained.

Objective A2: Convene a multidisciplinary advisory group to provide guidance on the State HAI Prevention Plan and NH DHHS HAI surveillance and prevention activities.

Method/Plan: NH DHHS has already created a TAW, which includes representatives from acute care hospitals, critical access hospitals, psychiatric and rehabilitation hospitals, the state APIC chapter, a local SHEA representative, the NH Hospital Association, and the NH Healthcare Quality Assurance Commission. Once hired, the HAIPC will take leadership of this group and plan between 2 and 4 meetings of the group each year. The TAW will review and discuss the State HAI Plan and HAI surveillance and reporting requirements.

Task	Start Date	End Date	Staff
Organize meeting of TAW to review and discuss draft of State HAI Plan	Oct 2009	Nov 2009	CDSS, HAIPC
Convene 2-4 meetings of TAW each year	Jan 1, 2010	Dec 31, 2011	HAIPC

Evaluation Criteria: TAW convened for review and discussion of State HAI Plan by November 30, 2009 and at least two times each year thereafter to maintain State HAI Plan and review surveillance and prevention activities.

Staffing and Sustainability: The activities under this objective will be completed primarily by the position (HAIPC) being requested through this funding opportunity. Until such time the position is filled, the work will continue to be completed by the Acting Chief of the CDSS. Throughout the funding period, the HAIPC will coordinate all activities with support from the Chief of CDSS and the staff epidemiologist. At the completion of the funding period, the funded HAIPC position will stay filled with a different source of funding. All activities under this objective will be sustained.

Activity B: Detection and Reporting of Healthcare Associated Infection Data

Objective B1: Establish a statewide surveillance system for healthcare-associated infections using the National Healthcare Safety Network (NHSN)

Method/Plan: Beginning in 2007, data collection and public reporting of specific HAI and process measures were mandated by the NH legislature. Efforts to implement the law have been stymied by the lack of funds to hire a full time HAI Program Coordinator (HAIPC). Despite the absence of a HAIPC, NH DHHS has made progress towards implementing HAI reporting and presently, all 26 acute care hospitals are enrolled in NHSN and reporting required data. However, this data will go unutilized until an HAIPC is hired, as there are no resources to train hospitals, develop and implement a data validation plan, or conduct data analyses and prepare data reports.

The HAIPC hired under Activity A will also be responsible for implementing and maintaining HAI surveillance in NH. This position is the same position created under Activity A. The HAIPC will coordinate the TAW. The broad representation of TAW allows for buy-in of HAI surveillance methods by hospital administrators, hospital infection control practitioners (ICPs), the State, and the hospital association. The HAIPC will work with the TAW to sustain full statewide reporting, engaging partners in the planning and implementation of surveillance activities to ensure methods developed are feasible, appropriate, and sustainable. NH has selected NHSN as the primary reporting and analysis tool for HAI surveillance in NH and is initially using the device-associated (CLABSI and CLIP) and procedure-associated modules for infection reporting (SSI). After hospitals become acquainted with NHSN, additional reporting may be implemented, such as use of the MDRO-CDAD module, for which NH DHHS is aware of four hospitals currently participating in the MDRO-CDAD module through work with the New Hampshire Quality Improvement Organization.

Collected HAI data will be analyzed and interpreted using available standard national guidelines and will be disseminated to stakeholders including reports to the public annually as required by law. Statistical analysis of data will be performed by the HAIPC with support from the CDSS Section Chief and staff Epidemiologist (funds are not requested for salary support of these support individuals). Annual public reports must be made available on the State website in accordance with state law. All data reports will also be provided electronically directly to hospital reporters, the NH Healthcare Quality Assurance Commission, and the TAW.

Task	Start Date	End Date	Staff
Hire staff member to serve as HAIPC	Aug 30, 2009	Position Filled	CDSS
Conduct one-day HAI reporting and NHSN user training for hospital ICPs	Oct or Nov 2009	Annually	CDSS, HAIPC
Work with hospital ICPs to report data and conduct site visits twice annually	Aug 30, 2009	Ongoing	HAIPC
Hold monthly conference calls for hospitals to discuss HAI reporting-related issues and accomplishments	Aug 30, 2009	Ongoing	HAIPC
Analyze data and produce data reports	Aug 30, 2009	Ongoing	HAIPC
Participation in NHSN State-Users and CSTE HAI monthly calls	Aug 30, 2009	Ongoing	HAIPC

Evaluation Criteria: Maintaining enrollment of all 26 (100%) acute care hospitals, hospital reporting of required data, and production of annual public data report and quarterly report on the two HHS HAI Prevention Targets.

Staffing and Sustainability: The activities under this objective will be completed primarily by the position (HAIPC) being requested through this funding opportunity. Until such time the position is filled, the work will continue to be completed by the Acting Chief of the CDSS. Throughout the funding period, the HAIPC will coordinate all activities with support from the Chief of CDSS and the staff epidemiologist. At the completion of the funding period, the funded HAIPC position will stay filled with a different source of funding. All activities under this objective will be sustained.

Objective B2: Develop and implement a statewide validation program to evaluate surveillance methods and NHSN reported data for accuracy and relevance

Method/Plan: NH DHHS requests funds to contract with a contractor with infection prevention expertise to develop a validation plan for NH’s HAI reporting program. The contract will include only the development of a NH-specific validation plan based on available national standards. The actual validation work will be conducted by the HAIPC. The contractor will provide a detailed methodology for auditing laboratory data and randomized chart review, data collection forms, data analysis, and recommendations for frequency of audits. The contractor will provide a written plan and auditing materials such that State staff can maintain the activity after funds awarded expire.

Task	Start Date	End Date	Staff
Develop and issue RFP	Jun 30, 2009	Aug 30, 2009	CDSS
Select contractor and work with contractor to develop validation plan	Aug 30, 2009	Dec 31, 2009	CDSS, HAIPC
Conduct validation of data and visit each hospital for audit at least annually	Aug 30, 2009	Annually Spring 2010 Spring 2011	HAIPC

Evaluation Criteria: Developed, planned, and implemented validation of reported data annually (or in accordance with contractor recommendations) before annual data analysis and preparation of annual public report in June.

Staffing and Sustainability: The development of validation methods will be completed by a contractor and the actual validation audits will be completed by the position (HAIPC) being requested through this funding opportunity. NH DHHS expects the contractor to create one new part-time position (0.25 FTE) to perform the work in the contract. At the completion of the funding period, the funded HAIPC position will stay filled with a different source of funding and all validation activities under this objective will be sustained, with the exception that NH DHHS will no longer require the contracted services.

Objective B3: Coordinate with informatics capacity building activities to allow facilities with planned or existing electronic laboratory reporting (ELR) to utilize features of NHSN that enable electronic reporting of microbiology results and other data to NHSN.

Method/Plan: In NH, currently no hospital laboratories are participating in ELR with NH DHHS however, NH’s NEDSS system has demonstrated success with ELR from the Public Health Laboratories (PHL) system into the New Hampshire Electronic Disease Surveillance System (NHEDSS) using PHINMS. NH DHHS requests funds to contract with a vendor to conduct a statewide ELR assessment to evaluate hospital laboratory information systems, HL7 message creation capability, and messaging ability at each of the 26 acute care hospitals. NH DHHS, through the contractor, would then provide funding to four (15%) hospitals to assist them with developing an ELR mechanism in their facility to report laboratory data to NHSN. Selection of hospitals will include consideration of laboratory testing volume, current data sharing capabilities, and participation in the NHSN MDRO-CDAD module. NH DHHS would participate heavily in the development of the assessment survey as there are several staff members in the Communicable Disease Surveillance Section with expertise in ELR, HL7 messaging, and PHINMS software through work with NHEDSS ELR.

Task	Start Date	End Date	Staff
Develop and issue RFP	Jun 30, 2009	Aug 30, 2009	CDSS
Select contractor to develop ELR assessment tool and conduct assessment	Aug 30, 2009	Dec 31, 2009	Contractor, CDSS
Identify four hospitals and provide funds	Jan 1, 2010	Mar 31, 2010	Contractor, CDSS
Hospitals work to enable ELR to NHSN	Mar 31, 2009	Dec 31, 2011	Hospitals

Evaluation Criteria: Enabled electronic reporting of laboratory data to NHSN from at least 10% of participating facilities

Staffing and Sustainability: The proposed activities in this objective will be completed by a contractor with the support of existing state staff. NH DHHS expects the contractor to create one new part-time position (0.5 FTE) to perform the work in the contract. The Acting Chief of the CDSS will develop the Request for Proposals, review proposals in accordance with state policies, select a bidder, and contract with the selected contractor. Existing state informatics staff will assist the contractor to develop an ELR assessment tool, who will then conduct the assessment, work with NH DHHS to select hospitals, and provide funds to four hospitals. After expiration of federal funds for this activity, NH DHHS will not be able to provide funds to additional hospitals wishing to enable ELR, however will provide whatever technical support or expertise we can offer to support their work.

Objective B4: Conduct systematic confirmatory testing of select pathogens associated with reported HAI as a means to validate and supplement local HAI data and detect emerging strains.

Method/Plan: Little information is available that describes the strains of Methicillin-Resistant *Staphylococcus aureus* (MRSA) and *Clostridium difficile* that are circulating in the hospitals and communities within the State of New Hampshire. Such information would be helpful during outbreak investigations, since the significance of outbreak strains identified is often unclear without baseline strain information. The Public Health Laboratories (PHL) will recruit five NHSN-participating hospitals to submit isolates of MRSA and *C. difficile* to the PHL for confirmatory testing and molecular characterization. As a PulseNet laboratory, the PHL will initially use Pulsed-Field Gel Electrophoresis (PFGE) to provide strain characterization data. Using the submitted isolates, additional techniques such as sequencing (using a ABI 3130xl Genetic Analyzer) will be investigated to supplement characterization data in an effort to provide higher level of strain discrimination. This will be a continuing effort by the state of New Hampshire to study and characterize MRSA and *C. difficile*. Characterization data will be linked to epidemiological data to evaluate disease characteristics and strain distribution within the State.

During the hospital recruitment process, the four NH hospitals currently participating in the NHSN MDRO-CDAD module will be targeted. One additional hospital will be recruited to submit specimens and begin using the MDRO-CDAD module as well. Any hospitals that wish to participate in this laboratory activity must also agree to report in to the NHSN MDRO-CDAD module such that both laboratory and epidemiologic data are obtained.

The PHL plans to use grant funding to support a part-time laboratory scientist to conduct the PFGE analysis. Due to the defined time frame of the funding the PHL proposes to enter into collaboration with the University of New Hampshire (UNH) to hire a microbiology graduate student (UNHGS). Funding will also be used to support laboratory reagents, media and additional PFGE instrumentation.

Task	Start Date	End Date	Staff
Recruit hospitals and hospital laboratories into the study, begin collecting isolates	Aug 30, 2009	Dec 31, 2009	PHL
Define characterization techniques and acquire reagents, media and additional instrumentation	Aug 30, 2009	Dec 31, 2009	PHL
Recruit and hire UNH graduate student	Aug 30, 2009	Dec 31, 2009	PHL
Conduct characterization studies on submitted isolates	Jan 1, 2010	Dec 31, 2010	PHL, UNHGS
Compile characterization data, link data to epidemiology data and develop strain distribution map for the State	Jan 1, 2011	Dec 31, 2011	HAIPC, UNHGS

Evaluation Criteria: Recruit five hospitals to participate in the laboratory surveillance project for submission of MRSA and *C. difficile* clinical isolates for confirmatory testing and molecular characterization. A goal of 25 isolates of each organism per month is proposed for a total of

1,200 specimens during the funding period. Production of eight quarterly reports on laboratory surveillance results and a final characterization map of strain prevalence in the State of NH.

Staffing and Sustainability: One part-time position (0.5 FTE) will be hired in the PHL to conduct the laboratory testing. Additionally, the HAIPC and other CDSS and PHL staff will participate in activities. While the position and the routine testing program will not be maintained after the award period expires, the PHL will have enhanced capability and will continue to accept specimens during outbreaks or special circumstances. NH DHHS would be interested in conducting this laboratory surveillance project again in several years to assess trends as funding allows.

Objective B5: Provide educational opportunities and resources to NH DHHS Staff and hospital infection prevention staff to build long-lasting infection prevention and surveillance expertise in the State

Method/Plan: NH DHHS requests funds to develop statewide expertise in infection prevention and surveillance through training and workforce development, conference attendance, development of reporting and prevention materials, and purchase of healthcare epidemiology textbooks and other resources. NH DHHS proposes coordinating an annual HAI reporting meeting for hospitals each fall where reporting requirements and surveillance definitions are reviewed. Additionally, NH DHHS proposes contracting with the Association for Professionals in Infection Control and Epidemiology (APIC) to provide the EPI 101 course (Fundamentals of Infection Surveillance, Prevention and Control) in 2010 and EPI 201 (Beyond the Fundamentals: Enhancing Practice Using Epidemiologic Principles) in 2011. Funds are also requested for the HAIPC to enroll in data analysis and statistical software courses to develop data analysis and reporting skills for development of quarterly and annual HAI data reports. The HAIPC will also attend the annual APIC and SHEA meeting (or similar meeting such as CSTE). NH DHHS will purchase several healthcare epidemiology and infection prevention textbooks (Mayhall’s Hospital Epidemiology and Infection Control, Bennett and Brachman’s Hospital Infections, Wenzel’s Prevention and Control of Nosocomial Infections, the APIC text, etc) and requests funds for developing HAI surveillance and reporting posters and materials. Finally, NH DHHS proposes sending the newly hired HAIPC to a state with an established HAI reporting program (such as Tennessee) for two days to learn how from others how to coordinate NH’s program as well as how to provide support and train hospitals.

Task	Start Date	End Date	Staff
Convene annual HAI reporting meeting for hospitals	Fall 2009	Fall 2011	HAIPC
EPI 101 course offered once	Jan 1, 2010	Dec 31, 2010	Contractor
EPI 201 course offered once	Jan 1, 2011	Dec 31, 2011	Contractor
HAIPC attendance at statistical software and analysis courses	Jan 1, 2010	Dec 31, 2011	HAIPC
HAIPC attendance at annual APIC and SHEA meetings (or similar)	Jan 1, 2010	Dec 31, 2011	HAIPC

HAIPC travel to state with established reporting program	Jan 1, 2010	Dec 31, 2010	HAIPC
Purchase of textbooks and other materials	Aug 30, 2009	Dec 31, 2011	CDSS/HAIPC
Development of surveillance and reporting tools	Aug 30, 2009	Dec 31, 2011	CDSS/HAIPC

Evaluation Criteria: Hospital attendance at annual HAI reporting meeting, provision of two infection surveillance and reporting educational programs for infection prevention staff in state, and NH DHHS attendance at two scientific conference each year.

Staffing and Sustainability: Meeting planning and developing a contract with APIC prior to the hiring of the HAIPC will be managed by the Chief of CDSS. Once hired, the HAIPC will manage all educational activities and development of surveillance and reporting tools. At the completion of the funding period, the funded HAIPC position will stay filled with a different source of funding. Activities under this objective that will be sustained include holding an annual meeting with NHSN reporters and sending the HAIPC to two scientific conference each year.

Activity C: Establishing a Prevention Collaborative

Objective C1: Enhance the statewide hand hygiene collaborative to reduce the occurrence of healthcare-associated infections in NH by identifying a dedicated infection preventionist to visit hospitals to provide training on hand hygiene observation and education

Method/Plan: The ‘High Five’ campaign is a statewide initiative to monitor and improve hand hygiene compliance and is organized under the auspices of the NH Healthcare Quality Assurance Commission with staff support provided by the Foundation for Healthy Communities (FHC). In order to take fundamental steps towards eliminating healthcare-associated infections in NH hospitals, the aim of the initiative is to have 100% compliance with hand hygiene (HH) as recommended in the CDC Guideline for Hand Hygiene in Health-Care Settings in all NH hospitals. The initiative relies on five components to improve compliance and includes the following: 1) leadership commitment, 2) availability of products, 3) hand hygiene training and competency verification, 4) measurement, and 5) feedback and accountability. This ongoing initiative has been established since 2008 and currently has a 20-person multidisciplinary group to advise and guide the project. All 26 acute care hospitals in NH are currently participating in the initiative. Individual hospitals compare hand hygiene compliance to infection rates in the hospital, however this has not been done statewide. Additionally, some hospitals still express challenges with implementing the initiative in a standard way or garnering compliance in certain classes of healthcare workers.

NH DHHS proposes to support the important work of the collaborative by contracting with the FHC to hire a part-time infection preventionist to visit each hospital two times each year to provide training in hand hygiene observation and data entry and use of forms, and to evaluate activities to improve hand hygiene compliance. The part-time employee would also assist with hand hygiene data collection and analysis and collaborate with NH DHHS to correlate with

reported infection data. While improved hand hygiene compliance can decrease the occurrence of all healthcare-associated infections, under this award activity, the measured hand hygiene compliance will specifically be correlated with expected decreases in SSI and CLABSI. SSI and CLABSI data will be reported into NHSN by 100% of eligible NH hospitals allowing for statewide calculation of rates for comparison to statewide hand hygiene compliance.

Task	Start Date	End Date	Staff
Develop contract with Foundation for Health Communities (FHC) to provide part-time staff person to collaborative	Jun 30, 2009	Dec 31, 2009	CDSS, FHC
Conduct hospital visits for training, data collection, and evaluating hand hygiene training programs	Jan 1, 2010	Dec 31, 2011	FHC
Collection and analysis of hand hygiene compliance data	Jan 1, 2010	Dec 31, 2011	FHC
Analysis of CLABSI and SSI data	Jan 1, 2010	Dec 31, 2011	HAIPC
Production of annual report for stakeholders on progress of the hand hygiene collaborative and reporting on the two target infections	Jan 1, 2010	Mar 31, 2012	FHC, HAIPC

Evaluation Criteria: Two face-to-face meetings of participating facilities convened, 100% of NH hospital participation in the hand hygiene collaborative, demonstrated improvement in hand hygiene compliance ($\geq 85\%$ statewide hand hygiene compliance), demonstrated reductions (10% each year) in statewide rates of CLABSI and SSI.

Staffing and Sustainability: NH DHHS expects the FHC to create one new part-time position (0.5 FTE) to perform the work in the contract. The hand hygiene collaborative, without the support of the contracted position, will continue after the award period expires.

SUMMARY OF JOB CREATION THROUGH PROJECT WORKPLAN ACTIVITIES

Activities A (the proposed position also works on Activity B objectives):

Number of jobs created: 1 FTE

Number of created jobs that will be sustained after funding period expires: 1 FTE

Activity B:

Number of jobs created: 1.25 FTE

Number of created jobs that will be sustained after funding period expires: 0 FTE

Activities C:

Number of jobs created: 0.5 FTE

Number of created jobs that will be sustained after funding period expires: 0 FTE

Total for Activities A, B, and C:

Number of jobs created: 2.75 FTE

Number of created jobs that will be sustained after funding period expires: 1 FTE

PERFORMANCE MEASURES AND EVALUATION PLAN

Recovery Act and OMB tracking and reporting requirements:

NH DHHS will track, measure, and report programmatic and fiscal activity and economic impact as required by the Announcement, the Recovery Act, and the U.S. Office of Management and Budget (OMB). As an ELC and ARRA recipient, NH DHHS will include reporting on these ARRA-funded activities in their regular annual progress and Financial Status Reports. In addition, NH DHHS will do quarterly reporting specifically on the ARRA funding and activities. Should stricter reporting guidelines than those listed below be required by ARRA Section 1512, NH DHHS will adopt and follow the stricter reporting guidelines.

As an ARRA recipient, no later than ten 10 days after the end of each calendar quarter, starting with the quarter in which the ELC ARRA supplemental awards are issued, NH DHHS will submit quarterly reports to CDC and HHS that will be posted for public access. These quarterly reports will contain the following:

1. The total amount of ARRA funds under this award.
2. The amount of ARRA funds received under this award that were obligated and expended for projects and activities.
3. The amount of unobligated ARRA funds under this award.
4. A detailed list of all projects and activities for which ARRA funds under this award were obligated and expended including:
 - a. The name of the project or activity.
 - b. A description of the project or activity.
 - c. An evaluation of the completion status of the project or activity
 - d. An estimate of the number of jobs created and the number of jobs retained by the project or activity (including ELC recipient and any sub-recipients.
 - e. Information related to the output and outcome measures appropriate to the activities which they have undertaken for activity A & B and presented in Appendix A.
5. Detailed information on any sub-awards (sub-contracts or sub-grants) made by NH DHHS and will include data elements required to comply with the Federal Accountability and Transparency Act of 2006 (Public Law 109-282). Each sub-award of \$25,000 or more will be reported on separately. All sub-awards less than \$25,000 or to individuals will be reported in the aggregate. Sub-award reporting will include:
 - a. The name, description, and location of the entity receiving the sub-award.
 - b. The amount of the sub-award.
 - c. The transaction type (sub-grant, sub-contract, consultant agmt, etc.)
 - d. The North American Industry Classification System code or Catalog of Federal Domestic Assistance (CFDA) number.
 - e. Program source
 - f. An award title descriptive of the purpose of each funding action.
 - g. The primary location of performance under the award, including the city, State, congressional district, and country.
 - h. A unique identifier of the entity receiving the sub-award and of the parent entity of the recipient, should the entity be owned by another entity.

- i. The date of the sub-award was issued
- j. The term of the sub-award (start/end dates).
- k. The scope/activities of the sub-award.
- l. The amount of the total sub-award that has been obligated or disbursed by the sub-recipient.
- m. The amount of the total sub-award that remains unobligated by the sub-recipient.

Additionally, NH DHHS will receive, track, and report on Recovery Act funds separately from other funding in our ELC cooperative agreement as described in the budget attachment.

Performance Measurement for Program Activities and Work plans:

NH DHHS will track the performance of all program activities related to this funding opportunity. The work plans above include specific expected outcomes and deliverables for each activity. Additionally, NH DHHS will comply with the measurement and reporting requirements for all measures listed in Appendix A of the funding announcement and reproduced below. For any measures not monitored directly by CDC, the HAIPC will develop quarterly progress reports as required.

Table: Performance Measurement: Measures, Data Collection/Reporting, and Frequency

Component	Measure(s)	Data Source/Reporting	Frequency
<i>ELC—Outputs</i>			
<u>Activity A — all grantees would undertake this activity:</u> Number of states with HHS-approved HAI prevention plans and who have hired a prevention coordinator	Submission by state of state plan Approval of state’s HAI plan Prevention coordinator in place	Reported by grantees in progress reports. Scored and compiled by CDC Program Official	Quarterly
<u>Activity B — (self)selected grantees would undertake this activity:</u> Number of new healthcare facilities participating in NHSN	% of state’s hospitals participating in NHSN	Monitored by CDC via the National Health Safety Network (NHSN). No grantee reporting required.	Quarterly
<u>Activity C — (self)selected grantees would undertake this activity:</u> Number of new HAI collaboratives established	Evidence of at least one collaborative possessing at least one of the 4 key attributes of a strong prevention collaborative [per checklist]	Reported by grantees in progress reports. Scored and compiled by CDC Program Official	Quarterly

Component	Measure(s)	Data Source/Reporting	Frequency
	Evidence of at least one collaborative possessing all 4 key attributes of a strong prevention collaborative [per checklist]		
<i>ELC—Outcomes</i>			
(Increased/enhanced) Adoption of priority recommendations from CDC’s HAI prevention guidelines	% of state’s participating hospitals completing the CLIP practice module % of state’s participating hospitals completing the MDRO practice module	Will be monitored by CDC via the National Health Safety Network (NHSN). No grantee reporting required.	Quarterly
Reduction in (targeted or selected) HAIs	% of participating hospitals that are in the lowest quartile in the 2008 NHSN for incidence of: CLABSI C diff CAUTI MRSA SSI	Will be monitored by CDC via the National Health Safety Network (NHSN). No grantee reporting required.	Quarterly

**Funding Opportunity Number: CI07-70402ARRA09
 Epidemiology and Laboratory Capacity for Infectious Diseases (ELC)
 Healthcare-Associated Infections - Building and Sustaining State Programs to Prevent
 Healthcare-associated Infections**

**28 MONTH BUDGET
 AUGUST 30, 2009 THROUGH DECEMBER 31, 2011**

A. PERSONNEL

\$ 142,919.00

	<i>Position Title and Name</i>	<i>Annual Salary</i>	<i>% Time</i>	<i>Months</i>	<i>Amount Requested</i>
1	Program Specialist III (new)	\$48,770.00	100%	28	\$109,868.00
2	Laboratory Scientist I – Part-time (new)	\$16,526.00	100%	24	\$33,051.00
				Total	\$142,919.00

1. Program Specialist III (See Appendix “Supplemental Job Description”)

The fulltime Program Specialist III position will serve as the Healthcare-Associated Infections Program Coordinator (HAIPC) and will oversee the Healthcare-Associated Infections (HAI) Program in the Communicable Disease Surveillance Section (CDSS). The Program Specialist III will develop the State HAI Prevention Plan and maintain the use of CDC’s National Healthcare Safety Network (NHSN) to track the occurrence of healthcare-associated infections in New Hampshire as required by law and will implement educational strategies to prevent them. The Program Specialist III will analyze and interpret the collected statewide HAI data and work with stakeholders on reporting and prevention initiatives. Anticipated date of hire is August 31, 2009.

2. Laboratory Scientist I

This part-time Laboratory Scientist will perform traditional microbiological confirmatory testing of submitted isolates. The position will also perform PFGE testing and investigate sequencing testing on submitted isolates. Anticipated date of hire is January 1, 2010.

B. FRINGE BENEFITS

\$57,462.00

Fringe Benefits are calculated at actual cost. These expenses include medical and dental insurance, social security, Medicare and retirement costs. Benefits for new or vacant full-time positions are calculated at 50.0 % of salary. Benefits for part-time positions are calculated at 7.65 % of salary. Fringe benefits for the positions above are estimated at \$57,462.00.

Subtotal \$ 57,462.00

C. TRAVEL **\$ 25,636.00**

1. In-State Travel \$ 8,580.00

Epidemiology (CDSS)

In-state travel funds are requested for the Program Specialist III to attend in-state meetings with healthcare providers in New Hampshire. The Program Specialist III will visit each acute care hospital (26) twice yearly to provide NHSN training and validate HAI data. Estimated costs are 150 miles roundtrip per hospital x 26 hospitals x 2 visits per year x 2 years at \$0.55 reimbursement rate equals \$8,580.00.

Subtotal \$8,580.00

2. Out-of-state travel \$ 17,056.00

Epidemiology (CDSS)

Out-of-state travel funds are requested for the Program Specialist III to attend two scientific conferences each year, such as SHEA, APIC, or a NHSN users conference each year. Estimated cost for each trip= \$2,284.00: conference registration=\$500, round trip airfare = \$750, lodging =\$700 (\$140 per night X 5 nights), per diem = \$294 (\$49 per day X 6 days), ground transportation = \$40. Total: \$2,284.00 x 2 trips per year x 2 years= \$9,136.00.

Subtotal. \$ 9,136.00

Out-of-state travel funds are requested for the Program Specialist III and the staff epidemiologist (who will support HAI data analysis, assist in outbreak investigation, and provide back-up capacity for the Program Specialist III) to travel to attend the SHEA-CDC Course in Healthcare Epidemiology. Estimated travel cost for each individual: \$2,484.00: course registration: \$700, round trip airfare = \$750, lodging =\$700 (\$140 per night X 5 nights), per diem = \$294 (\$49 per day X 6 days), ground transportation = \$40. Total: \$2,484.00 x 2 attendees= \$4,968.00.

Subtotal. \$ 4,968.00

Out-of-state travel funds are requested for the Program Specialist III to travel to a state with an established HAI reporting program (such as Tennessee) for two days to learn from others doing the same work how to coordinate NH's program as well as how to provide support and train hospitals. Estimated travel costs: \$ 1,406.00: round trip airfare = \$750, lodging =\$420 (\$140 per night X 3 nights), per diem = \$196 (\$49 per day X 4 days), ground transportation = \$40.

Subtotal. \$ 1,406.00

Laboratory (PHL)

Request funds for laboratory Scientist I to attend CDC training on Bionumerics for PFGE pattern interpretation. Estimated cost per trip is calculated at \$ 1,546.00: round trip airfare = \$750, lodging = \$560 (\$140 per night X 4 nights), per diem = \$196 (\$49 per day X 4 days), plus ground transportation = \$40.

Subtotal \$ 1,546.00

D. EQUIPMENT

\$ 32,000.00

Funds are requested to purchase the following equipment to increase the capacity for PFGE analysis to accommodate expanded PFGE testing. Equipment will be available for continuation of effort after the grant period.

Item	Qty	Unit Cost	Total
CHEF MAPPER	1	\$25,000.00	\$25,000.00
SPECTROPHOTOMETER	1	\$7,000.00	\$7,000.00
TOTAL			\$32,000.00

E. SUPPLIES

\$ 46,999.42

Funds are requested to purchase office and computer supplies including a new desktop computer for the Program Specialist III to support component objectives. Additional requests include a laptop computer and LCD projector for training presentations and fieldwork. Estimated costs are:

Item	Total
New desktop computer with associated software	\$1,500.00
New laptop computer with associated software	\$1,700.00
LCD projector	\$750.00
Routine office supplies (\$50/month X 28months)	\$1,400.00
TOTAL	\$5,350.00

Subtotal \$ 5,350.00

Funds are requested to purchase the following supplies to increase the capacity for PFGE analysis to accommodate expanded PFGE testing. Equipment will be available for continuation of effort after the grant period.

Item	Qty	Unit Cost	Total
SHAKING WATER BATH	1	\$2,165.00	\$2,165.00
STANDING WATER BATH	1	\$630.00	\$630.00
HEAT BLOCK	1	\$398.00	\$398.00
THERMOSTAT	1	\$1,410.00	\$1,410.00
SCREEN CAPS	20	\$39.00	\$780.00
GEL MOLDS	4	\$195.00	\$780.00
COMBS FOR GEL MOLDS	4	\$156.00	\$624.00
PLUG MOLDS	4	\$117.00	\$468.00
TE BUFFER	8	\$21.00	\$168.00
10X TBE	26	\$30.00	\$780.00
TRIS EDTA	8	\$15.00	\$120.00
TRIS	4	\$36.00	\$144.00
ETHIDIUM BROMIDE	4	\$30.00	\$120.00
SEAKEM GOLD	6	\$150.00	\$900.00
50 ML CENTRIFUGE TUBES	2	\$130.00	\$260.00
15 ML CENTRIFUGE TUBES	2	\$198.00	\$396.00
1.7 ML MICROCENTRIFUGE TUBES	2	\$190.00	\$380.00
FALCON TUBES	2	\$140.00	\$280.00
TRANSFER PIPETS	2	\$50.00	\$100.00
RAZOR BLADES	2	\$16.00	\$32.00
PETRI DISHES	2	\$75.00	\$150.00
SPATULAS	2	\$11.00	\$22.00
SWABS	2	\$164.00	\$328.00
WEIGH DISHES	2	\$70.00	\$140.00
PROTEINASE K	6	\$180.00	\$1080.00

RESTRICTION ENZYMES	48	\$78.00	\$3,744.00
5M NACL	4	\$15.00	\$60.00
DEOXYCHOLIC	2	\$183.00	\$366.00
5% SHEEP BLOOD AGAR 100/PK	24	\$60.00	\$1,440.00
CLOSTRIDIUM DIFFICILE SELECTIVE AGAR 10/PK	72	\$23.00	\$1,656.00
ANAEROBIC GAS GENERATING SYSTEM	32	\$534.00	\$17,088.00
ANAEROBIC INDICATOR STRIPS	6	\$71.00	\$426.00
ANAEROBIC RAPID IDENTIFICATION KITS	28	\$133.00	\$3,724.00
GRAM STAIN REAGENTS	4	\$40.00	\$160.00
COAGULASE REAGENT	6	\$55.07	\$330.42
TOTAL			\$41,649.42

Subtotal \$ 41,649.42

F. CONTRACTUAL

\$ 280,000.00

Funds are requested to contract with a vendor to conduct an assessment of electronic laboratory capacity in acute care hospitals and to assist hospitals with implementing electronic laboratory reporting (ELR) to NHSN by providing each of four participating hospitals \$15,000 to assist with developing ELR capacity. The amount of \$30,000 is requested for the ELR assessment, and \$60,000 for the four hospitals at \$15,000 each.

Name of Contractor: Determined through competitive bid

Method of Selection: Competitive Bid

Period of Performance: September 2009 through December 2011

Description of Activities: Conduct ELR assessment and provide funds to hospitals

Budget: \$90,000.00

Subtotal \$ 90,000.00

Funds are requested to contract with the NH Healthcare Quality Assurance Commission to support the work of the statewide hand hygiene collaborative to prevent healthcare-associated infections by provide funding for a dedicated infection preventionist to train and support hospital staff working on the collaborative.

Name of Contractor: NH Healthcare Quality Assurance Commission
Method of Selection: Sole Source
Period of Performance: August 30, 2009 through December 31, 2011
Description of Activities: Hire staff member to train, support, and travel to hospitals
Budget: \$50,000.00

Subtotal \$ 50,000.00

Funds are requested to contract with the Association of Professionals in Infection Control and Epidemiology to provide the EPI 101 course in 2010 and the EPI 201 course in 2011. The course will be provided to all acute care, critical access, and specialty hospital infection control practitioners in NH and a selected group of infection control practitioners in long term care facilities for a total of 100 participants for each course.

Name of Contractor: Association of Professionals in Infection Control and Epidemiology
Method of Selection: Sole Source
Period of Performance: January 2010 through December 2011
Description of Activities: Organize and provide infection prevention course
Budget: \$115,000.00

Subtotal \$ 115,000.00

Funds are requested to contract with an infection prevention specialty organization to implement a sustainable data validation program to ensure the quality of healthcare-associated infection data into NHSN.

Name of Contractor: Determined through competitive bid
Method of Selection: Competitive Bid
Period of Performance: September 2009 through December 2011
Description of Activities: Develop a NH-specific data validation program
Budget: \$25,000.00

Subtotal \$ 25,000.00

G. CONSTRUCTION **\$ 0.00**

No funds are requested for construction.

H. OTHER **\$152,535.00**

Funds are requested for the cost of a phone line and phone charges for the Program Specialist III. Estimated costs are \$50 per month times 28 months = \$1,400.00.

Subtotal \$ 1,400.00

Funds are requested for monthly HAI reporting conference calls with hospital partners. Estimated costs are \$500.00.

Subtotal \$ 500.00

Funds are requested for the purchase of infection prevention textbooks and resources to facilitate knowledge of current infection prevention issues for State staff. Intended purchases include Mayhall's Hospital Epidemiology and Infection Control (\$168), Bennett and Brachman's Hospital Infections (\$193), Wenzel's Prevention and Control of Nosocomial Infections (\$300), the APIC text (\$659), and various compendiums and elimination guides (\$500). Total estimated costs are \$1,820.00.

Subtotal \$ 1,820.00

Funds are requested for the development and printing of HAI surveillance and reporting resources for hospitals, such as reporting posters, reporting guidelines, NHSN tips, and other resources to accurate and timely reporting of HAI data to NHSN. Estimated costs include development and printing of 5,000 posters at approximately \$5,000.00.

Subtotal \$ 5,000.00

Funds are requested for the HAIPC to attend data analysis and data presentation courses, such as SAS, Excel, or Access. Estimated Costs are \$1,000.00.

Subtotal \$ 1,000.00

Funds are requested to provide a yearly one day meeting in the fall to NH Infection Control Practitioners on the use of the National Healthcare Safety Network surveillance system for the purpose of achieving statewide healthcare associated infection reporting. Cost per each meeting is estimated at \$3,070.00: cost of food = \$1,875.00 (\$25 per person x 75 persons), cost for trainer = \$1,195.00 [(round trip airfare = \$750; lodging = \$300 (\$100 per night X 3 nights); per diem = \$ 105 (\$35 per day X 3 days); plus ground transportation = \$40)]. Based on the 28-month budget period, funds are requested to hold a fall training in 2009, 2010, and 2011. Total estimated cost is \$3,070 x 3 years = \$9,210.00

Subtotal \$ 9,210.00

Funds are requested for audit fund set-a-side estimated at .001 of total federal award.

Subtotal \$ 737.00

Funds are requested for support costs associated with this grant, based on an approved cost allocation plan. The NH Department of Health and Human Services (DHHS) submitted a departmental cost allocation plan to the US DHHS Division of Cost Allocation for approval, effective July 1, 1999. Based on the approved DHHS cost allocation plan, costs within the

Division of Public Health Services (DPHS) are allocated to benefiting programs or grants based on methods contained in the plan. Allocated costs include: division administration, program administration, finance, human resources, rent, cost of living adjustment (COLA), statewide cost allocation, etc. On grant applications, the allocated costs are shown as a value based on previous cost allocation analysis (see also explanation below). Estimated costs = \$132,648.00.

Subtotal \$ 132,868.00

I. TOTAL DIRECT CHARGES **\$737,551.42**

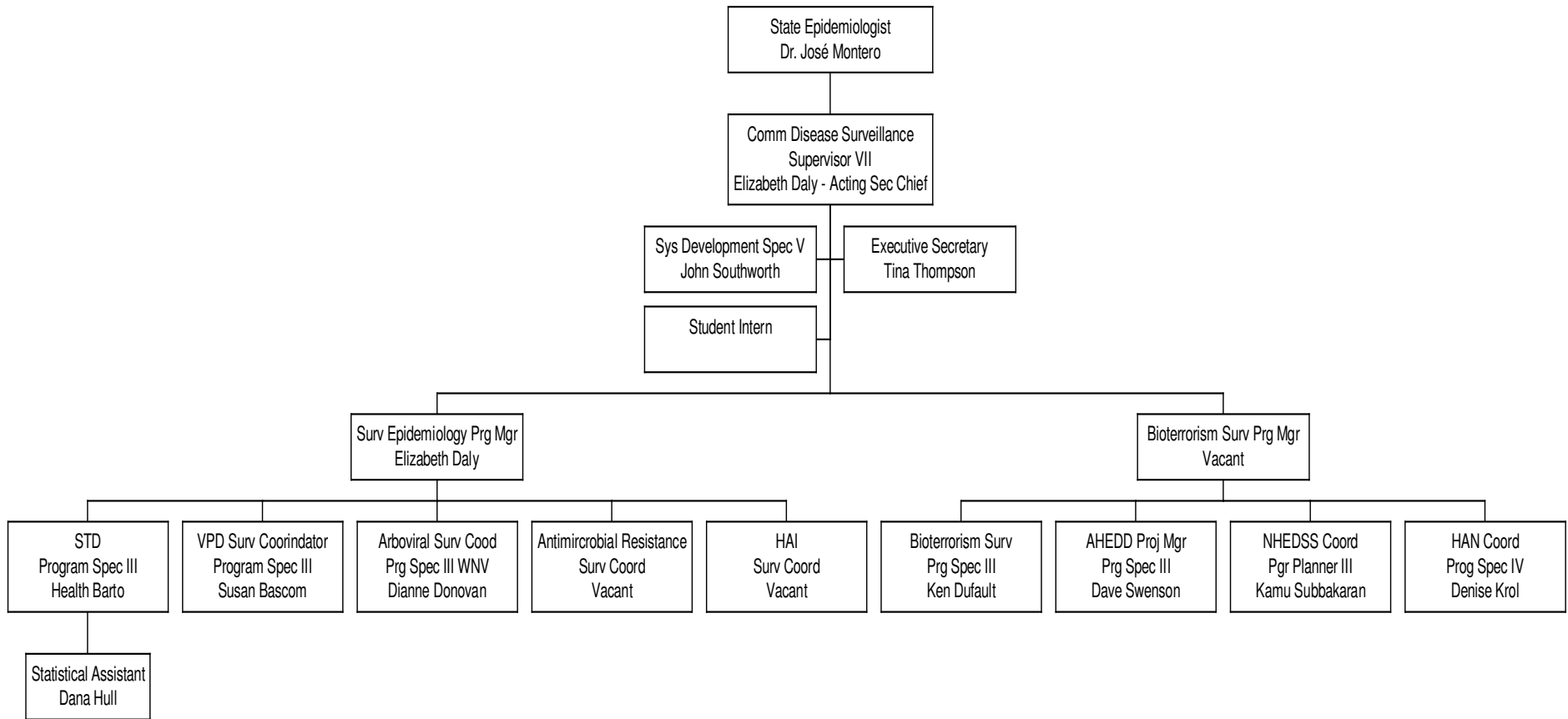
J. INDIRECT CHARGES **\$ 0.00**

Support costs, listed under "H. Other" above are collected based on a cost allocation plan approved by the federal Department of Health and Human Services in a letter (see attached) on November 19, 2003.

K. TOTAL REQUEST FOR THIS APPLICATION	<u>\$ 737,551.42</u>
--	-----------------------------

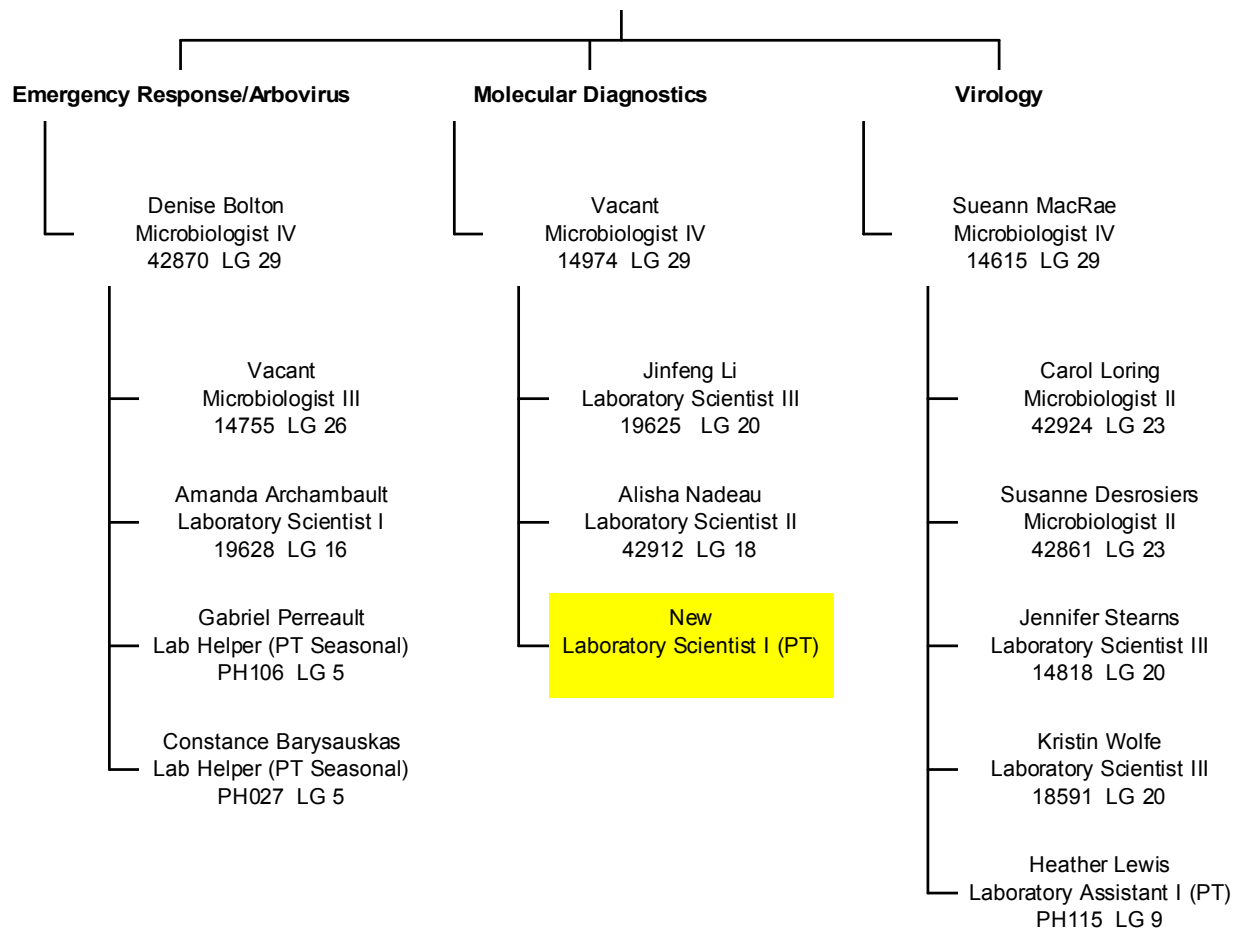
The New Hampshire Department of Health and Human Services, Division of Public Health Services will establish a separate and distinct accounting fund for the funds awarded through this application, for the purpose of receiving, expending, and reporting of such funding. These funds will be accounted for separately from other funding in New Hampshire's ELC cooperative agreement and will be clearly distinguishable in all financial systems, business systems, and reporting systems.

**New Hampshire Division of Public Health Services
Bureau of Disease Control & Health Statistics
Communicable Disease Surveillance Section**



New Hampshire Division of Public Health Services
Bureau of Laboratory Sciences
Public Health Laboratories

Fengxiang Gao
Program Manager Virology & Special Testing
Microbiologist V
14799 LG 32



ELIZABETH R. DALY

259 Brickett Road, Manchester, NH 03109, (603) 661-0553, email: elizabeth.daly@yahoo.com

EDUCATION

M.P.H., Epidemiology, Emory University, Atlanta, GA, 2003

Concentration: Infectious Diseases

Thesis: The Relationship Between West Nile Virus Infection and Underlying Health Conditions in Georgia, 2001-2002

Relevant Coursework: SAS Programming, Applied Data Analysis, Biostatistics I & II, Epidemiology Methods I & II, Epidemiologic Modeling, Case Studies in Infectious Diseases, Healthcare Epidemiology, Public Health Preparedness and Bioterrorism, Environmental and Occupational Health, Social Behavior in Public Health, Healthcare Management, Healthcare Policy

B.S., Zoology, University of New Hampshire, Durham, NH, 2002

Concentration: Pre-medical

Study Abroad: School for International Training, Wildlife Ecology and Conservation, Tanzania, Spring 2000

Relevant Coursework: Microbiology, Genetics, Cell Biology, Animal Physiology, Biostatistics, Epidemiology, Vertebrate Morphology, Organic Chemistry I & II, General Biology I & II, General Chemistry I & II, Physics I & II, Calculus for Life Sciences

B.A., English, University of New Hampshire, Durham, NH, 2002

PUBLIC HEALTH WORK EXPERIENCE

2/2004- Present

NH Department of Health and Human Services, Division of Public Health Services, Communicable Disease Surveillance Section, Concord, NH

11/2006- Present Acting Chief

- Direct administrative and programmatic supervision of 12 staff member surveillance unit
- Responsible for overall communication and transmission of communicable disease surveillance data to the U.S. Centers for Disease Control and Prevention and oversee production of the Communicable Disease Bulletin and Annual Report
- Responsible for grant and grant-related progress report writing, budget development, and creation of business protocols to support functionality of critical disease surveillance systems
- Developed and implemented the mandatory healthcare-associated infections reporting program

2/2004- Present Communicable Disease Epidemiologist

- Manage and lead the investigation of foodborne disease outbreaks including conducting cohort and case control studies and act as liaison to the U.S. Centers for Disease Control and Prevention for foodborne and other enteric illnesses and outbreaks
- Maintain foodborne illness surveillance system including follow-up of foodborne illness cases
- Perform data analyses and respond to data requests and serve as consultant on statistical and epidemiological issues
- Direct supervisor of the Food Safety Coordinator position (June 2005 to October 2007)

9/2002- 12/2003

U.S. Centers for Disease Control and Prevention, National Center for Infectious Diseases, Atlanta, GA

09/2002- 5/2003, 9/2003- 12/2003 Microbiology Research Assistant, Div of Healthcare Quality Promotion, Epi Laboratory Branch

- Assisted in Methicillin Resistant *Staphylococcus aureus* (MRSA) baseline prevalence study through the National Health and Nutrition Examination Survey (NHANES)
- Performed identification for the National Reference Laboratory of *Micrococcaceae* using standard biochemical tests

6/2003- 8/2003 Biological Laboratory Aid, Scientific Resources Program, Specimen Management Branch

- Processing SARS and Monkey Pox samples in the Specimen Triage and Tracking biosafety level 3 laboratory
- Aliquoted SARS specimens (blood, serum, swabs, stool, urine, sputum, etc) into containers for testing and long-term storage
- Maintained patient data records and communicated with Emergency Operations Center and special study investigators

6/1998- 5/1999

Health Peer Education Coordinator, University of New Hampshire, Sexual Harassment and Rape Prevention Program, Durham, NH

- Developed effective education programs to reduce the incidence of sexual violence on campus
- Supervised and trained 20-30 volunteer peer educators
- Collected and organized sexual violence statistics for use in presentations, program planning, management, and evaluation

ACADEMIC TEACHING AND MENTORSHIP EXPERIENCE

- 2008- Present Preceptor, Dartmouth Institute for Health Policy and Clinical Practice, Master of Public Health Program, Hanover, NH
- Served as preceptor to graduate students each Spring during 5 month internship at the New Hampshire Department of Health and Human Services
- 2005- Present Guest Lecturer, University of New Hampshire, Master of Public Health Program, Durham, NH
- Lecture topics: Surveillance Evaluation, Outbreak Investigation Methods, Case-Control Study Design/Analysis
- 2004- 2005 Mentor, Young Epidemiology Scholars National Competition, Washington, DC
- Regional Finalist, "Factors Contributing to Bednet Use and Other Prevention Practices for Malaria in Tanzania", Pinkerton Academy Student, Derry, NH
- Fall 2003 Teaching Assistant, Emory University, Rollins School of Public Health, Department of Epidemiology, Atlanta, GA
- Evaluated graduate student work in the "Case Studies in Infectious Disease" epidemiology course and provided feedback to students regarding methods in outbreak investigations, data analysis, infection control, and appropriate response to an infectious disease outbreak
- 1/2001- 5/2002 Writing Consultant, University of New Hampshire Writing Center, Durham, NH
- Tutored and reviewed the written work of graduate and undergraduate students and assisted them with the writing process including brainstorming, drafting, editing, and finalizing their writing

RESEARCH AND OTHER STUDIES

"Eland of West Kilimanjaro: A Behavioral Analysis of Domesticated Eland—Kilimanjaro Region, Tanzania," Independent Study, School for International Training, 2000.

"Community Perceptions, Control Activities, and Health-Seeking Behavior for Malaria in Tanzania—Dar es Salaam, Tanzania," Research Project, University of New Hampshire, funded by UNH's International Research Opportunities Program Grant, 2001.

"The Relationship Between West Nile Virus Infection and Underlying Health Conditions in Georgia, 2001-2002", Master of Public Health Thesis, Emory University, 2003.

"Institutional Risk Factors for Norovirus Outbreaks in Long-term Care Facilities," NH Department of Health and Human Services, 2007.

PEER REVIEWED PUBLICATIONS

1. Talbot EA, **Gagnon ER**, Greenblatt J. Common ground for the control of multidrug-resistant *Salmonella* in ground beef. *Clin Infect Dis*. 2006 May 15;42(10):1455-62.
2. Greene SK, **Daly ER**, Talbot EA, et al. Recurrent multistate outbreak of *Salmonella* Newport associated with tomatoes from contaminated fields, 2005. *Epidemiol Infect*. 2008 Feb;136(2):157-65. Epub 2007 May 16.
 - Nominated for the CDC 2009 Charles C. Shepard Science Award in "Assessment & Epidemiology"
3. Sotir MJ, Ewald G, Kimura AC, Higa JI, Sheth A, Troppy S, Meyer S, Hoekstra RM, Austin J, Archer J, Spayne M, **Daly ER**, Griffin PM, and the *Salmonella* Wandsworth Outbreak Investigation Team. Outbreak of *Salmonella* Wandsworth and Typhimurium infections in infants and toddlers traced to a commercial vegetable-coated snack food. Accepted *Pediatr Infect Dis J* 03/02/2009.
4. **Daly ER**, Roy SJ, Blaney DD, Manning JS, Hill VR, Xiao L, Stull JW. Outbreak of giardiasis associated with a community drinking water source, New Hampshire, 2007. Accepted pending revision *Epidemiol Infect* 02/25/2009.

5. Blaney DD, **Daly ER**, Tongren JE, Talbot EA, Tassler Kelso P, Kirkland KB. Use of Alcohol-Based Hand Sanitizers as a Risk Factor for Norovirus Outbreaks in Long-term Care Facilities in Northern New England. In Preparation.
6. Kirking HL, Cortes J, Burrer S, Hall A, Cohen N, Lipman H, Curi K, **Daly ER**, Fishbein D. Transmission of Norovirus on an Airplane, October 2008. In Preparation.
7. **Daly ER**, et al. Recurrent outbreaks of *Salmonella* Enteritidis associated with a contaminated immersion blender, New Hampshire, 2009. In Preparation.

OTHER PUBLICATIONS

1. **Gagnon ER**. "The Legacy of IROP: Giving Back the Gift of Mentorship." Inquiry Journal. University of New Hampshire, Durham, NH. 2005. Available at <http://www.unh.edu/inquiryjournal/05/commentary/gagnon.htm>.
2. **Gagnon ER**, Welch JJ. Increase of Hepatitis A in New Hampshire: Implications for Food Service Establishments. NH Lodging and Restaurant Association Newsletter. August 2005.
3. **Gagnon ER**, Manning JS. An Increase in Hepatitis A Virus in New Hampshire. NH Communicable Disease Bulletin, NH Division of Public Health Services. October 2005.
4. CDC. Multistate Outbreaks of *Salmonella* Infections Associated with Eating Raw Tomatoes --- Eastern United States and Canada, 2005—2006. *Morb Mort Weekly Rep.* 56(35); 909-911.
5. CDC. *Salmonella* Oranienburg Infections Associated with Fruit Salad Served in Health-care Settings--- Northeastern United States and Canada, 2006. *Morb Mort Weekly Rep.* 56(39); 1025-1028.
6. **Daly ER**. An Increase in Norovirus Activity in New Hampshire, 2006-2007. NH Communicable Disease Bulletin, NH Division of Public Health Services. July 2007.
7. **Daly ER**. Foodborne Outbreak Surveillance and the use of Molecular Methods: Importance of Specimen Collection and Submission. NH Communicable Disease Bulletin, NH Division of Public Health Services. November 2008.

ABSTRACTS AND CONFERENCE PRESENTATIONS

1. **Gagnon ER**. "Community Perceptions, Control Activities, and Health-Seeking Behavior for Malaria in Tanzania." National Conference on Undergraduate Research, 2002, Whitewater, WI, 5/19/2002.
2. **Gagnon ER**. "Investigation of a Multistate Cluster of *Salmonella* Newport, July-August, 2004." Northeast Epidemiology Conference, Meredith, NH, 10/15/2004.
3. **Gagnon ER**. "Investigating Multi-State Foodborne Illness Clusters: Collaboration between Epidemiologists, Laboratories, and Food Protection Staff from Multiple States" Northeast Food and Drug Officials Meeting, Concord, NH, 8/19/2005.
4. Greene SK, **Gagnon ER**, Talbot EA, et al. Recurrent Multi-State Outbreak of *Salmonella* Newport Associated with Tomatoes, 2005 [Session 91, C2-865]. 5th International Conference on Emerging Infectious Diseases, Atlanta, GA, 2006.
5. Jain S, Bidol S, Lockett J, Berl E, Elson F, LeMaile-Williams M, Deasy M, Moll M, **Gagnon E**, Rea V, Vojdani J, Yu P, Hoekstra M, Braden C, Lynch M . Multistate Outbreak of *Salmonella* Typhimurium Associated with Unpasteurized Orange Juice – United States, 2005 [Session 91, C2-865]. Annual Epidemic Intelligence Service Conference, Atlanta, GA, 4/2006.
6. **Gagnon ER**. "The use of a professional survey center in a multistate foodborne illness cluster investigation." 2nd Annual National Foodborne Epidemiologists Meeting, Miami, FL, 4/5/2006.
7. **Daly ER**. "A Multistate Outbreak of *Salmonella* Oranienburg Infections Associated with Fruit Salad Served in Healthcare Settings— Northeastern United States, June-July 2006". Northeast Epidemiology Conference, Saratoga Springs, NY, 10/26/2006.
8. **Gagnon ER**, Adamski C, Talbot, EA. "Timeliness is of the essence: A systematic evaluation of disease reporting in New Hampshire" [Session 4264.0, Abstract #124834]. American Public Health Association Annual Meeting, Boston, MA, 11/7/2006.
9. **Daly ER**. "A Multistate Outbreak of *Salmonella* Oranienburg Infections Associated with Fruit Salad Served in Healthcare Settings— Northeastern United States and Canada, June-July 2006". Canada and United States Eastern Border Health Initiative Meeting, Burlington, VT, 5/10/2007.

10. **Daly ER**, Talbot, EA, Lynch M, Olson C. "A Multistate Outbreak of *Salmonella* Oranienburg Infections Associated with Fruit Salad Served in Healthcare Settings—Northeastern United States, June-July 2006" [Abstract #2318]. Council of State and Territorial Epidemiologists Annual Meeting, Atlantic City, NJ, 6/25/2007.
11. Blaney DD, Barton-Behravesh CE, Braden CR, Lynch MF, Taylor TH, Talbot EA, **Daly ER**, Nguyen TT, Perry CA. "Multistate Outbreak of *Salmonella* Typhimurium Associated with Consumption of Tomatoes in Restaurants, September–October 2006" [Session 39]. Preventive Medicine Conference 2008, Austin, TX, 2/23/2008.
12. Sheth A, Sotir M, Ewald G, Kimura A, Higa J, Troppy S, Meyer S, Braymen C, Archer J, Spayne M, Hoekstra M, **Daly E**, Austin J, Griffin PM, and the Salmonella Wandsworth Outbreak Investigation Team. "Snack attack: Multistate outbreak of *Salmonella* serotypes Wandsworth and Typhimurium infections associated with consumption of a puffed vegetable snack food—United States, 2007". Annual Epidemic Intelligence Service Conference, Atlanta, GA, 4/2008.
13. Blaney DD, **Daly E**, Manning J, Stull J. "Beaver Fever? Outbreak of Giardiasis Associated with Drinking Water — New Hampshire, 2007". Annual Epidemic Intelligence Service Conference, Atlanta, GA, 4/2008.
14. **Daly ER**, Manning J, Blaney D, Stull J. "An Outbreak of Giardiasis Associated with Drinking Water—New Hampshire, 2007" [Abstract #3003]. Council of State and Territorial Epidemiologists Annual Meeting, Denver, CO, 6/11/2008.
15. Blaney DD, **Daly ER**, Talbot EA, Tassler Kelso P, Spayne M, Tongren JE, Lambrukos JH, Kirkland KB. "Use of Alcohol-Based Hand Sanitizers as a Risk Factor for Norovirus Outbreaks in Long-term Care Facilities in Northern New England" [Poster #397]. Society for Healthcare Epidemiology of America Annual Scientific Meeting, San Diego, CA, 03/2009.
16. Cavallaro EC, Date K, Kim C, Medus C, Meyer S, Smith K, Phan Q, Salehi E, Nowicki S, **Daly E**, Bergmire-Sweat D, Crosgrove S, Barton Behravesh C, Williams I. "Nuts Over *Salmonella*: Multistate Outbreak of *Salmonella* serotype Typhimurium Infections Associated with Peanut Butter and Peanut Butter-Containing Products- United States, 2008—2009". Annual Epidemic Intelligence Service Conference, Atlanta, GA, 4/2009.
17. Kirking HL, Cortes J, Burrer S, Hall A, Cohen N, Lipman H, Curi K, **Daly ER**, Fishbein D. "Probable Transmission of Norovirus on a United States Commercial Flight – Boston to Chicago, October 2008". 11th Conference of the International Society of Travel Medicine, Budapest, Hungary, 5/2009.

PUBLIC SERVICE AND MEMBERSHIPS

American Public Health Association, Member, 2003-2004, 2006-2007
American Sociological Association, Member, 2001-2002
Durham Ambulance Corps, EMT-B Volunteer (2,500 on call hours, 300 calls), 2001- 2008
Wentworth Douglass Hospital, Dover, NH, Patient Advocate Volunteer, 1999
Habitat for Humanity Volunteer, 1998-1999
Sexual Harassment and Rape Prevention Program, Volunteer Crisis Counselor (2,000 on call hours), 1998-2002
Health Education Sexual Violence Peer Education Volunteer, 1997- 2002

AWARDS

Division of Public Health Services Employee of the Month, State of New Hampshire, December 2004
Durham Ambulance Corps, Rookie of the Year, 2002
International Research Opportunities Program grant, University of New Hampshire, 2001
Richard M. Ford Writing Award for Non-Fiction, University of New Hampshire, 2001
School for International Training Merit Scholarship, 2000
Movers and Shakers Leadership Award, University of New Hampshire, 1998

SKILLS

Proficient in SAS, SAS Enterprise Guide, SPSS, EpiInfo 2000, Microsoft Office Applications (Word, Excel, Access, Powerpoint)
Post MPH program training includes: emergency preparedness, bioterrorism response, forensic epidemiology, rapid needs assessment
National Incident Management System Certified

CHRISTINE L. BEAN, Ph.D., MBA, MT (ASCP)

PERSONAL DATA

Home Address: 227 Mill Rd. Hampton, NH 03842
Telephone: (603) 271-4657 (office)
(603) 926-8414 (home)
(603) 419-0234 (cell)
Fax: (603) 271-4783
E-mail: clbean@dhhs.state.nh.us

EDUCATIONAL BACKGROUND

PhD Microbiology 2003
University of New Hampshire Durham, New Hampshire

Certificate Summer Institute for Public Health Studies in 1996
Quantitative Methods and Epidemiology
Harvard School of Public Health Boston, Massachusetts

MBA Business Administration 1993
Southern New Hampshire University Hooksett, New Hampshire

B.S. Medical Technology 1982
University of New Hampshire Durham, New Hampshire

Certificate Management Certification Program 1990
Endicott College Beverly, Massachusetts

Certification American Society of Clinical Pathologists 1982
Medical Technologist Certification #147855

PROFESSIONAL EXPERIENCE

Laboratory Director January, 2005-present
NH Department of Health and Human Services
Public Health Laboratories

Administrator for Public Health Laboratories for the State of NH.

Adjunct Professor January, 2005- present
Medical Laboratory Science Program
Department of Animal, Nutritional and Medical Laboratory Science
College of Life Science and Agriculture
University of New Hampshire

Christine L. Bean

Page 2

Professional Experience cont.

Guest Lecturer

November, 2006 present

Graduate Certificate Program Public Health Laboratory Sciences
School of Health and Environment
University of Massachusetts Lowell

Assistant Professor

1990-2005

Medical Laboratory Science Program
Department of Animal, Nutritional and Medical Laboratory Science
College of Life Science and Agriculture
University of New Hampshire

Responsible for teaching Clinical Mycology and Parasitology, Laboratory Management and Microbiology Seminars to undergraduate students; advising undergraduate MLS students and graduate students in the Masters of Public Health Program School of Health and Human Services; marketing MLS program and actively soliciting clinical internship sites with regional diagnostic medical and research laboratories. Responsible for student laboratory and research laboratory safety programs. Member of University of New Hampshire Institutional Biological Safety Committee (IBC). Conducted research in the public health effects of land application of biosolids.

Chairperson

1993-1997

Department of Medical Laboratory Science
School of Health and Human Services
University of New Hampshire

Responsible for the administration of academic and clinical components of the Medical Laboratory Science program including budget preparation and monitoring, marketing of MLS program and curriculum development.

Research Scientist

1996-2003

PAJ Enterprises, Exeter, NH

Responsible for processing sludge specimens and examining processed samples for viable helminth ova; developing protocols and quality assurance procedures; analysis of clinical results.

Microbiology Consultant

1995-1997

Beverly Hospital, Beverly, MA

Clinical diagnosis of infectious diseases including bacteriology, mycology and parasitology.

Christine L. Bean

Page 3

Professional Experience cont.

Microbiology Manager
Beverly Hospital, Beverly, MA

1985-1990

Responsible for all aspects of technical and administrative management of clinical microbiology laboratory; coordinating student rotations for undergraduates completing their laboratory training from Salem State College; preparation for CAP and JCAHO inspections. Responsible for Quality Assurance and Infection Control for the clinical laboratory, and for budget preparation and monitoring for clinical microbiology laboratory.

Medical Technologist
Path Lab, Inc., Exeter, NH

1982-1985

Generalist medical technologist position; performed laboratory testing in hematology, clinical chemistry, immunohematology and microbiology. Also performed phlebotomy and therapeutic blood draws when required.

PUBLICATIONS

Bean, C.L., J. J. Brabants, G. Widmer, G. Batzer, H. Balkin, and A. B. Margolin. 2007. Class B Alkaline Stabilization to Achieve Pathogen Inactivation Int J Environ Res Public Health. Mar;4(1):53-60.

Bean, C.L. and J. J. Brabants. January/February 2001, Biosolids Technical Bulletin Vol. 7 No. 1; Lab Analyzes *Ascaris* Ova Recovery Rates using Revised Protocol.

Bean, C.L. and J.J. Brabants. October/November 2000, Water Environment Laboratory Solutions Vol. 7, No. 6; Successful Implementation of EPA's Protocol for Determining the Viability of *Ascaris* Ova in Wastewater Solids.

LaCroix, K.A., Bean, C., Reilly, R. and Curran-Celentano, J., "The Effects of Hormone Replacement Therapy on Protein C and Antithrombin III in Menopausal Women." Clinical Laboratory Science. 10:3, 145-148, 1997.

LaCroix, K.A., Bean, C., Box, L., and Wagner, K., "A Study of the Fibrinolytic Response in Healthy Men and Women Following a Brief Exposure to Venous Occlusion." Thrombosis Res. 81:1, 133-143, 1996.

LaCroix, K.A., and Bean, C. "A Study to Measure Indicators of the Prethrombotic State in Premenopausal and in Menopausal Women." Clinical Laboratory Science. 7:3, 145, 1994.

LaCroix, K.A., Bean, C., and Chandler, T. "Critical Issues in Clinical Laboratory Science Education". Clinical Laboratory Science. 6:1, 37-40, 1993.

OTHER PUBLICATIONS

"Detecting Parasites in Environmental Samples", Manure Pathogens, Water Environment Research Foundation to be published in 2007.

"Protozoa in Water", The Encyclopedia of Water, Wiley & Sons Publishing to be published in 2004.

"Giardiasis", The Encyclopedia of Water, Wiley & Sons Publishing to be published in 2004.

"Theoretical and Practical Concepts for Optimizing Laboratory Learning" in University Teaching: A Guide for Graduate Students 2nd edition. Syracuse Press. Submitted for publication June 30, 2000. Joanne Burke, C. Bean and R. Riley.

"A summary of reportable parasitic diseases found in New Hampshire from 1993-1997"; Bean, Christine; UNH Cooperative Extension, submitted May, 1999.

"Update on *Cyclospora cayetanensis*"; Eaton, Alan and Christine Bean; UNH Cooperative Extension, March 14, 1997.

PUBLISHED ABSTRACTS

Bean, C.L. and J.J. Brabants. "Survey of Wastewater Solids to Assess the Prevalence of *Cryptosporidium* and *Giardia* Species and *Ascaris lumbricoides*". ASM Meeting Abstracts. 2001.

GRANTS AND AWARDS

Water Environment Research Foundation. "Parasite Indicators in Biosolids for Land Application". \$300,000.00. 2000-2003.

Hatch Grant UNH AES "Assessment of the fate of *Cryptosporidium parvum* in biosolids treatment processes". \$15,000. 2002-2004.

New Hampshire Water Resource Research Center, "*Clostridium perfringens* as an indicator of treatment effectiveness in anaerobic digestion of sludge". \$15,000.00. 2003-2005.

MEMBERSHIPS

Association of Public Health Laboratories
American Society for Clinical Laboratory Science
American Society of Clinical Pathologists
American Society of Microbiology
Northeast Assoc. for Clinical Microbiology and Infectious Disease
Clinical Laboratory Management Association
Christine L. Bean

PROFESSIONAL PRESENTATIONS

“Viability Assays for *Cryptosporidium parvum*”. 2002. NE 1001: Application of Sewage Biosolids to Agricultural Soils in the Northeast: Long-term Impacts and Benefit Uses. Toronto, Canada.

“Survey of Wastewater Solids to Assess the Prevalence of *Cryptosporidium* and *Giardia*”. 2001. NE 1001: Application of Sewage Biosolids to Agricultural Soils in the Northeast: Long-term Impacts and Benefit Uses. Durham, N.H.

“Survey of Wastewater Solids to Assess the Prevalence of *Cryptosporidium* and *Giardia* Species and *Ascaris lumbricoides*”. 2001. American Society of Microbiology General Meeting, Orlando, FL.

“Evaluation of the Correlation between Incidence of Giardiasis and Cryptosporidiosis and Land Application of Biosolids in New Hampshire”. COLSA Undergraduate Poster Session, May 5, 2001. K.O'Donnell and C. Bean.

"Public Health Effects of the Land Application of Municipal Sludge: Is *Ascaris lumbricoides* the best indicator organism for survivability of protozoans in biosolids?" 1999. Department of Microbiology Graduate Seminar Series, Durham, N.H.

"Teaching Laboratory Diagnostics to Family Nurse Practitioners"; 1997. 49th Annual CLS/CNE Meeting and Exhibits, Boxborough, MA.

"*Cyclospora cayetanensis*: An Emerging Protozoan Parasite of Humans"; 1997. Merrimack Valley Chapter of CLS/CNE continuing education series sponsored by Abbott Diagnostics, Boehringer Mannheim Diagnostics and Nova Biomedical.

"Uricult: An Expert System for Diagnosing Urinary Tract Infection"; 1995. ASCLS Annual Meeting, Anaheim, Ca.

"Lipid Level Variation in Pre, Post and Peri Menopausal Women"; 1994. ASCLS Annual Meeting, Nashville, TN.

"A Study of New England Hospital Laboratory Managers", 1992. ASCLS Annual Meeting, Boston, MA.

"Toxoplasmosis and Infertility", 1991. ASCLS Annual Meeting, Washington, D.C

AWARDS

Teaching Excellence Award 1996-1997
School of Health and Human Services
University of New Hampshire Durham, NH

Clinical Laboratory Science of Central New England (CLS/CNE) President's Award for Service,
1995

CLS/CNE Keys to the Future Award, 1994

John C. Lang Award for Health Care Administration, 1992

Clinical Laboratory Management Association Educational Scholarship sponsored by Curtin
Matheson Scientific, Inc., 1992

SUPPLEMENTAL JOB DESCRIPTION-NEW HAMPSHIRE

Classification: PROGRAM SPECIALIST III

Function Code: 7125-090

Position Title: Healthcare-Associated Infections Program Coordinator Date Established:

Position Number: To Be Established

Date of Last Amendment:

SCOPE OF WORK: Oversees the Healthcare-Associated Infections Program in the Communicable Disease Surveillance Section. Develops and maintains the State Healthcare-Associated Infections Prevention Plan. Oversees surveillance systems to track the occurrence of healthcare-associated infections in New Hampshire as required by law and implements educational strategies to prevent them. Analyzes and interprets statewide data, policies and procedures for use in planning disease prevention activities and interventions.

ACCOUNTABILITIES:

- Researches and develops protocols and plans for statewide surveillance projects and surveys of healthcare-associated infections for review by the Communicable Disease Surveillance Section Chief.
- Conducts surveillance projects following approved protocols. Collects, analyzes and interprets disease reports and other information. Manages data from surveillance projects in computer software programs such as spreadsheets and databases.
- Consults with state and local officials and agencies, the Public Health Laboratories and private laboratories, medical providers, and others to ensure coordination of surveillance projects.
- Provides interim and final reports on surveillance projects as requested and prepares quarterly and annual reports on the occurrence of healthcare-associated infections in New Hampshire.
- Analyzes existing disease surveillance policies and procedures in order to recommend effective changes to enhance disease reporting and prevention activities.
- Conducts other disease surveillance projects at the request of the supervisor.
- Develops education and prevention goals for the Healthcare-associated Infections Program and evaluates health education and health promotion materials focusing on healthcare-associated infections.
- Serves as a resource for current information about healthcare-associated infections. Provides education materials and presentations to the public, health providers, Department staff and other key stakeholders.
- Coordinates state workgroups for healthcare-associated infections reporting and prevention activities.
- Assists in the preparation of new and continuing federal grants at the request of the supervisor.
- Attends conferences, meetings and trainings as requested by the supervisor.
- Ensures availability to support the Department as needed in the event of a public health emergency.

MINIMUM QUALIFICATIONS:

Education: Bachelor’s degree from a recognized college or university with major study in a biological science, epidemiology, public health, nursing or allied health field. Each additional year of approved formal education may be substituted for one year required work experience.

Experience: Four years’ professional or paraprofessional experience in a health-related field with responsibility for program implementation, direct service delivery, planning or program evaluation.

License/Certification: Valid driver’s license and/or access to transportation for use in statewide travel.

SPECIAL REQUIREMENTS: Master’s degree preferred. Knowledge in the areas of epidemiology and statistics, infection prevention practices, and computer applications preferred. Experience working in infection prevention in a healthcare facility preferred.

DISCLAIMER STATEMENT: The supplemental job description lists typical examples of work and is not intended to include every job duty and responsibility specific to a position. An employee may be required to perform other related duties not listed on the supplemental job description provided that such duties are characteristic of that classification.

SIGNATURES:

I have reviewed this job description for content.

Reviewer’s Name, Title & Position #: Jose T. Montero, MD, State Epidemiologist, #9U448

Reviewer’s Signature

Date Reviewed

I have reviewed the content of the above job description with my supervisor.

Employee’s Signature

Date

I have discussed the work responsibilities outlined by the job description with the above employee.

Supervisor’s Name, Title, Position #: Elizabeth R. Daly, Acting Section Chief, #42856

Supervisor’s Signature

Date Reviewed

Division of Personnel

Date Approved

SUPPLEMENTAL JOB DESCRIPTION

Classification: LABORATORY SCIENTIST I Function Code: 5591-090

Position Title: Molecular Diagnostics Scientist I Date Established:

Position Number: To Be Determined Date of Last Amendment:

SCOPE OF WORK: Analyzes and reports results on human, animal, and environmental specimens in support of public health activities.

ACCOUNTABILITIES:

- Performs laboratory tests on clinical and environmental specimens and reports the results to health professionals to assist in protecting the public health; maintains flexibility to cope with assignments that may vary from day to day depending on workload.
- Receives specimens and enters data into Laboratory Information Tracking System to accurately track testing process. Reviews data entry of other staff to ensure accuracy of information.
- Performs, documents, and evaluates quality control to assure accuracy of test results.
- Operates, calibrates, and maintains laboratory equipment and apparatus to provide quality assured laboratory test results and to assure timely performance of analyses. Assures compliance with laboratory procedures.
- Participates in proficiency testing, and other quality assurance activities, to assure individual competence, to meet federal regulations and to enhance the Public Health Laboratories' reputation.
- Trains laboratory helpers and assistants and assists with the oversight of Trainees to assure proper operation of instruments and testing according to protocol.
- Communicates with health care providers and other laboratory users to convey test results and routine laboratory information for diagnostic and treatment decisions; maintains confidentiality at all times.
- Prepares reagents and maintains inventory.
- Actively participates on laboratory committees, as assigned
- Works flexible hours when the public health situation demands.

MINIMUM QUALIFICATIONS:

Education: Bachelor's degree from a recognized college or university with major study in the biological sciences, health sciences, or physical sciences.

Experience: One year experience in a clinical or public health laboratory.

License/Certification: Applicants must meet certification requirements of the Health Care Financing Administration for Clinical Laboratory Personnel (CLIA '88).

Supplemental Job Description
Laboratory Scientist I
Position #42912
Page 2 of 2

SPECIAL REQUIREMENTS:

1. For appointment consideration, Laboratory Scientist I applicants must successfully participate in a structured interview measuring possession of knowledge, skills and abilities identified as necessary for satisfactory job performance by this class specification. The structured interview is developed and administered, according to Division of Personnel guidelines, by representatives of the state agency in which the vacancy exists.
2. Must demonstrate successful completion of basic Core Training or its equivalent.
3. Must receive satisfactory performance evaluation and performance based recommendation from Supervisors and Laboratory Administrator.

SPECIAL QUALIFICATIONS: Visual deficiencies must not interfere with ability to perform laboratory analyses. Physical condition must allow for the administration of vaccines and/or necessary diagnostics tests. Superior manual dexterity and coordination required. Must be willing and able to handle unpleasant and/or hazardous specimens such as feces, sputum, blood, vomitus, urine, animal heads, and samples known to contain infectious organisms and/or toxic chemicals such as carcinogens. Must be willing to receive Hepatitis B vaccine.

DISCLAIMER STATEMENT: This supplemental job description lists typical examples of work and is not intended to include every job duty and responsibility specific to a position. An employee may be required to perform other related duties not listed on the supplemental job description provided that such duties are characteristic of the classification.

SIGNATURES:

I have reviewed this job description for content.

Reviewer’s Name, Title & Position #: Dr. Christine L. Bean, Administrator IV, #14780

Reviewer’s Signature

Date Reviewed

I have reviewed the content of the above job description with my supervisor.

Employee’s Name and Signature

Date

I have discussed the work responsibilities outlined by this job description with the above employee.

Supervisor’s Name, Title, Position #: Fengxiang Gao, Microbiologist IV, 42870

Supervisor’s Signature

Date Reviewed

Division of Personnel Date Approved



DEPARTMENT OF HEALTH & HUMAN SERVICES



Program Support Cent.
Financial Management Serv.
Division of Cost Allocat.

26 Federal Plaza-Room 41-12
New York, New York 1027
PHONE: (212)-264-2067
FAX: (212)-264-547

November 19, 2003

Mr. David Beckwith
Managing Analyst
State of New Hampshire
Department of Health and Human Services
Office of Knowledge Management and
Decision Support
129 Pleasant Street
Concord, New Hampshire 03301-3857

Dear Mr. Beckwith:

This is to advise you of the approval of the revised/updated Department of Health and Human Services Public Assistance Cost Allocation Plan proposed by letter dated June 27, 2003. The plan which was submitted in compliance with 45 CFR 95, Subpart E, is effective July 1, 2002.

The approval shall remain in effect until such time as the basis and methods for allocating costs stipulated in the plan become outdated due to organizational changes, changes in Federal law or regulations or there is a significant change in program composition that would effect the validity of the approved cost allocation procedures.

The plan approved by this letter, and costs claimed in conformance with it, are subject to the following conditions:

1. The approval is based on information provided by the State and is void if the information is later found to be materially incomplete or inaccurate.
2. The costs claimed for Federal financial participation must be allowable under the law, the cost principles contained in OMB Circular A-87 and program regulations.
3. The Title IV-E training allocation methodology must be revised in accordance with ACF policy - ACYF-CB-PA-90-01 (6/14/90), and the revision must be retroactive to the beginning of the state fiscal year 2004, which is effective July 1, 2003.

Nothing contained in this letter should be construed as approving activities not otherwise authorized by approved program plans, or Federal legislation or regulations.

Mr. David Beckwith


-2-

November 19, 2003

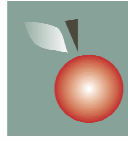
The implementation of the cost allocation plan approved by this document may from time to time be reviewed by authorized Federal staff. The disclosure of inequities during such review may necessitate changes to the plan.

If you have any questions, you may call my office at (212) 264-2069.

Sincerely,


Robert I. Aaronson
Director, Division of
Cost Allocation

cc: Hugh Galligan, ACF
Ronald Preston, CMS
Douglas MacAllister, USDA/FNS



FOUNDATION FOR
HEALTHY COMMUNITIES

June 4, 2009

Elizabeth R. Daly, MPH
Acting Chief, Communicable Disease Surveillance
Department of Health & Human Services
6 Hazen Drive
Concord, New Hampshire 03301

RE: Funding Opportunity Number: C107-70402ARRA09 Epidemiology and Laboratory Capacity for Infectious Diseases (ELC) Healthcare-Associated Infections – Building and Sustaining State Programs to Prevent Healthcare-Associated Infections

Dear Ms. Daly:

This letter is in strong support of New Hampshire's application for funding to build and sustain state programs to prevent healthcare associated infections. It is well documented that these infections are often preventable and always costly in terms of patient experience and resource use. Although New Hampshire has an impressive track record based on the CMS core measures and other voluntary reporting initiatives, hospitals and clinicians are committed to improving their performance and decreasing healthcare-associated infections.

The New Hampshire Department of Health & Human Services is ideally positioned to advance the important work they have begun as well as develop new approaches which can be sustained over time through integrated systems and the relationships that develop through meaningful collaboratives. As administrator of the New Hampshire Healthcare Quality Assurance Commission, a legislatively mandated body directed to analyze adverse events and share best practices, I can testify to the significant role that the NH DHHS plays in the state to decrease infection rates as well as the tremendous respect that is shared by providers for this partnership.

It is without hesitation that I strongly recommend that the New Hampshire Department of Health & Human Services receive funding to continue the important work that they have begun in this state. I look forward to continuing our partnership and the opportunity to promote a continually safer environment for patients.

Best regards,

Rachel Rowe

Rachel Rowe, RN, MS
Associate Executive Director, Foundation for Healthy Communities
Administrator, New Hampshire Health Care Quality Assurance Commission



1275 K Street, NW, Suite 1000
Washington, DC 20005-4006
Phone: 202/789-1890
Fax: 202/789-1899
apicinfo@apic.org
www.apic.org

**Letter of Support for the State of New Hampshire
American Recovery and Reinvestment Act
Epidemiology and Laboratory Capacity for Infectious Diseases (ELC) Grant**

June 22, 2009

To Whom It May Concern:

Please accept the following as a Letter of Support for a prospective partnership between the State of New Hampshire and the Association for Professionals in Infection Control and Epidemiology (APIC) for the enclosed grant application.

APIC has a proven track record as a provider of HAI reduction strategies and tailored solutions on a state-by-state basis. Recently, at the request of the Pennsylvania State Department of Health, APIC experts delivered Education for the Prevention of Infection (EPI™) courses to long-term care professionals throughout the state. For the Ohio Department of Public Health, we were contracted to provide training to 1,500 healthcare professionals and were granted a two-year contract extension based on the success of our original one-year engagement. Similarly, over a two-year period, BlueShield of California contracted with APIC to help 67 California hospitals reduce HAIs through a combination of education, collaboration and consulting with the CHAIFI Collaborative.

APIC has delivered high-quality education for more than 35 years and has established itself as a leader in the application of evidence-based infection prevention measures. Just in the last three years, APIC has trained more than 20,000 individuals through live workshops, conferences, and webinars, and an additional 50,000 publications, toolkits, and audio-video media have been distributed for self-directed learning. Our new online education curriculum will enable us to reach millions of healthcare workers with on-demand education.

In accordance with the ELC grant guidelines, APIC is prepared to offer partial or full logistical support to interested states for Activities A, B, and /or C. APIC's programs are turnkey, and ready to deliver almost immediately to help states such as New Hampshire get a quick start on their HAI prevention efforts.

We look forward to continuing to work with federal and state partners in achieving the national goal of reducing HAIs to save patient lives and reduce the costs of healthcare.

Best wishes,

A handwritten signature in black ink, appearing to read "Leslie E. Kretzu", written in a cursive style.

Leslie E. Kretzu
Director, Development