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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 for Item 18 on SF 424 (FACE PAGE)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Proper Signature and Date on PHS-5161-1 "Certifications" page	<input checked="" type="checkbox"/>	<input 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"/>	<input 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)	03/24/1997	
<input checked="" type="checkbox"/> Assurance Concerning the Handicapped (45CFR 84)	03/24/1997	
<input checked="" type="checkbox"/> Assurance Concerning Sex Discrimination (45CFR 86)	03/24/1997	
<input checked="" type="checkbox"/> Assurance Concerning Age Discrimination (45CFR 90 & 45 CFR 91)	03/24/1997	
5. Human Subjects Certification, when applicable (45CFR 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 for item #16 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 in item # 13 of the FACE PAGE	<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 checked="" type="checkbox"/>	<input 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.

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

Name John E. Lake
Title Controller, Business & Financial Services
Organization Arizona Department of Health Services
Address 1740 W. Adams, Phoenix, AZ 85007
E-mail Address lakej@azdhs.gov
Telephone Number (602) 542-6342
Fax Number (602) 542-1095

Name Shoana Anderson
Title Office Chief
Organization Arizona Department of Health Services
Address 150 N 18th Avenue, Phoenix, AZ 85007
E-mail Address anderssm@azdhs.gov
Telephone Number 602-364-3147
Fax Number 602-364-3199

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

SOCIAL SECURITY NUMBER

HIGHEST DEGREE EARNED

8 6 - 6 0 0 4 7 9 1

- - - - -

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 * If Revision, select appropriate letter(s) <input checked="" type="checkbox"/> New <input type="checkbox"/> Continuation <input type="checkbox"/> Revision *Other (Specify) _____
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3. Date Received:	4. Applicant Identifier:
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5a. Federal Entity Identifier:	*5b. Federal Award Identifier:
---------------------------------------	---------------------------------------

State Use Only:

6. Date Received by State:	7. State Application Identifier:
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8. APPLICANT INFORMATION:

***a. Legal Name:** Arizona Department of Health Services

*b. Employer/Taxpayer Identification Number (EIN/TIN): 86-6004791	*c. Organizational DUNS: 804745420
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d. Address:

***Street 1:** 1740 W Adams Street
Street 2: _____
***City:** Phoenix
County: _____
***State:** Arizona
Province: _____
***Country:** USA
***Zip / Postal Code** 85007

e. Organizational Unit:

Department Name: Arizona Department of Health Services	Division Name: Office of Infectious Diseases
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f. Name and contact information of person to be contacted on matters involving this application:

Prefix: Ms. ***First Name:** Shoana
Middle Name: _____
***Last Name:** Anderson
Suffix: _____

Title: Office Chief

Organizational Affiliation:
Arizona Department of Health Services

***Telephone Number:** 602-364-3676 **Fax Number:** 602-364-3199

***Email:** anderssm@azdhs.gov

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:

93.712 _____

CFDA Title:

ARRA - Immunization _____

***12 Funding Opportunity Number:**

CDC-RFA-CI07-70404ARRA09 _____

*Title:

American Recovery and Reinvestment Act (ARRA) Strengthening the Evidence Base Epidemiology and Laboratory Capacity for Infectious Diseases (ELC) Measuring Effectiveness of a New 13-Valent Pneumococcal Conjugate Vaccine _____

13. Competition Identification Number:

Title:

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

All counties in Arizona

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

Evaluating the Effectiveness of a New Pneumococcal Conjugate Vaccine in Arizona

Application for Federal Assistance SF-424

Version 02

16. Congressional Districts Of:

*a. Applicant: 02

*b. Program/Project: AZ-all

17. Proposed Project:

*a. Start Date: 09/01/2009

*b. End Date: 12/31/2011

18. Estimated Funding (\$):

*a. Federal	\$91,000.00
*b. Applicant	0.00
*c. State	0.00
*d. Local	0.00
*e. Other	0.00
*f. Program Income	0.00
*g. TOTAL	\$91,000.00

***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: Mr. *First Name: John
Middle Name: E
*Last Name: Lake
Suffix: _____

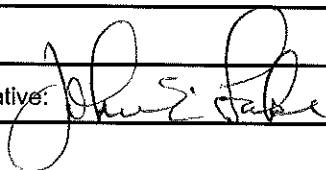
*Title: Controller, Business and Financial Services

*Telephone Number: 602-542-6342

Fax Number: 602-542-1095

* Email: lakej@azdhs.gov

*Signature of Authorized Representative:



*Date Signed:

6-26-09

BUDGET INFORMATION - NON-CONSTRUCTION PROGRAMS

BUDGET INFORMATION - Non-Construction Programs

SECTION A - BUDGET SUMMARY						
Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Numbers (b)	Estimated Un-obligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)1.
ARRA_Immunizations: Evaluating the Effectiveness of PCV13	93.712			\$91,000		\$91,000
1						\$0
2						\$0
3						\$0
4						\$0
5 TOTALS		\$0	\$0	\$91,000	\$0	\$91,000

SECTION B - BUDGET CATEGORIES					
Object Class Categories	(1) ARRA - Eval of PCV13	Grant Program, Function or Activity			Total (5)
		(2)	(3)	(4)	
a. Personnel		\$47,500			\$47,500
b. Fringe Benefits		\$20,425			\$20,425
c. Travel		\$0			\$0
d. Equipment		\$0			\$0
e. Supplies		\$2,950			\$2,950
f. Contractual		\$0			\$0
g. Construction		\$0			\$0
h. Other		\$1,581			\$1,581
i. Total direct charges (sum of 6a-6h)		\$72,456	\$0	\$0	\$72,456
j. Indirect Charges		\$18,544			\$18,544
k. TOTALS (sum of 6i and 6j)		\$91,000	\$0	\$0	\$91,000

SECTION C - NON-FEDERAL RESOURCES					
(a) Grant Program	(b) Applicant	(c) State	(d) Other Sources	(e) Totals	
ARRA_Immunizations: Evaluating the Effectiveness of PCV13	\$0	\$0	\$0	\$0	\$0
9					\$0
10					\$0
11					\$0
12	TOTAL (sum of lines 8 and 11)	\$0	\$0	\$0	\$0
SECTION D - FORECASTED CASH NEEDS					
	Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
13	Federal	\$45,600	\$11,400	\$11,400	\$11,400
14	Non-Federal	\$0			
15	TOTAL (sum of lines 13 and 14)	\$45,600			
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
ARRA_Immunizations: Evaluating the Effectiveness of PCV13		\$45,400			
16					
17					
18					
19					
20	TOTALS (sum of lines 16-19)	\$45,400	\$0	\$0	\$0
SECTION F - OTHER BUDGET INFORMATION (Attach additional Sheets if Necessary)					
21	Direct Charges:	2.23036% ITS Direct Charge		Indirect Charges: 27.3% of Personnel and Fringe	
23	Remarks:				

CERTIFICATIONS

1. CERTIFICATION REGARDING DEBARMENT AND SUSPENSION

The undersigned (authorized official signing for the applicant organization) certifies to the best of his or her knowledge and belief, that the applicant, defined as the primary participant in accordance with 45 CFR Part 76, and its principals:

- (a) are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal Department or agency;
- (b) have not within a 3-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
- (c) are not presently indicted or otherwise criminally or civilly charged by a governmental entity (Federal, State, or local) with commission of any of the offenses enumerated in paragraph (b) of this certification; and
- (d) have not within a 3-year period preceding this application/proposal had one or more public transactions (Federal, State, or local) terminated for cause or default.

Should the applicant not be able to provide this certification, an explanation as to why should be placed after the assurances page in the application package.

The applicant agrees by submitting this proposal that it will include, without modification, the clause titled "Certification Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion – Lower Tier Covered Transactions" in all lower tier covered transactions (i.e., transactions with sub-grantees and/or contractors) and in all solicitations for lower tier covered transactions in accordance with 45 CFR Part 76.

2. CERTIFICATION REGARDING DRUG-FREE WORKPLACE REQUIREMENTS

The undersigned (authorized official signing for the applicant organization) certifies that the applicant will, or will continue to, provide a drug-free work-place in accordance with 45 CFR Part 76 by:

- (a) Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession or use of a controlled substance is prohibited in the grantee's work-place and specifying the actions that will be taken against employees for violation of such prohibition;
- (b) Establishing an ongoing drug-free awareness program to inform employees about –
 - (1) The dangers of drug abuse in the workplace;
 - (2) The grantee's policy of maintaining a drug-free workplace;
 - (3) Any available drug counseling, rehabilitation, and employee assistance programs; and
 - (4) The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace;
- (c) Making it a requirement that each employee to be engaged in the performance of the grant be given a copy of the statement required by paragraph (a) above;
- (d) Notifying the employee in the statement required by paragraph (a), above, that, as a condition of employment under the grant, the employee will –
 - (1) Abide by the terms of the statement; and
 - (2) Notify the employer in writing of his or her conviction for a violation of a criminal drug statute occurring in the workplace no later than five calendar days after such conviction;
- (e) Notifying the agency in writing within ten calendar days after receiving notice under paragraph (d)(2) from an employee or otherwise receiving actual notice of such conviction. Employers of convicted employees must provide notice, including position title, to every grant officer or other designee on whose grant activity the convicted employee was working, unless the Federal agency has designated a central point for the receipt of such notices. Notice shall include the identification number(s) of each affected grant;

- (f) Taking one of the following actions, within 30 calendar days of receiving notice under paragraph (d) (2), with respect to any employee who is so convicted –
- (1) Taking appropriate personnel action against such an employee, up to and including termination, consistent with the requirements of the Rehabilitation Act of 1973, as amended; or
 - (2) Requiring such employee to participate satisfactorily in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health, law enforcement, or other appropriate agency;
- (g) Making a good faith effort to continue to maintain a drug-free workplace through implementation of paragraphs (a), (b), (c), (d), (e), and (f).

For purposes of paragraph (e) regarding agency notification of criminal drug convictions, the DHHS has designated the following central point for receipt of such notices:

Office of Grants and Acquisition Management
 Office of Grants Management
 Office of the Assistant Secretary for Management and Budget
 Department of Health and Human Services
 200 Independence Avenue, S.W., Room 517-D
 Washington, D.C. 20201

3. CERTIFICATION REGARDING LOBBYING

Title 31, United States Code, Section 1352, entitled "Limitation on use of appropriated funds to influence certain Federal contracting and financial transactions," generally prohibits recipients of Federal grants and cooperative agreements from using Federal (appropriated) funds for lobbying the Executive or Legislative Branches of the Federal Government in connection with a SPECIFIC grant or cooperative agreement. Section 1352 also requires that each person who requests or receives a Federal grant or cooperative agreement must disclose lobbying undertaken with non-Federal (non-appropriated) funds. These requirements apply to grants and cooperative agreements EXCEEDING \$100,000 in total costs (45 CFR Part 93).

The undersigned (authorized official signing for the applicant organization) certifies, to the best of his or her knowledge and belief, that:

- (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the under signed, to any

person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

- (2) If any funds other than Federally appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure of Lobbying Activities," in accordance with its instructions. (If needed, Standard Form-LLL, "Disclosure of Lobbying Activities," its instructions, and continuation sheet are included at the end of this application form.)
- (3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, sub-grants, and contracts under grants, loans and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

4. CERTIFICATION REGARDING PROGRAM FRAUD CIVIL REMEDIES ACT (PFCRA)

The undersigned (authorized official signing for the applicant organization) certifies that the statements herein are true, complete, and accurate to the best of his or her knowledge, and that he or she is aware that any false, fictitious, or fraudulent statements or claims may subject him or her to criminal, civil, or administrative penalties. The undersigned agrees that the applicant organization will comply with the Public Health Service terms and conditions of award if a grant is awarded as a result of this application.

5. CERTIFICATION REGARDING ENVIRONMENTAL TOBACCO SMOKE

Public Law 103-227, also known as the Pro-Children Act of 1994 (Act), requires that smoking not be permitted in any portion of any indoor facility owned or leased or contracted for by an entity and used routinely or regularly for the provision of health, day care, early childhood development services, education or library services to children under the age of 18, if the services are funded by Federal programs either directly or through State or local governments, by Federal grant, contract, loan, or loan guarantee. The law also applies to children's services that are provided in indoor facilities that are constructed, operated, or maintained with such Federal funds. The law does not apply to children's services provided in private residence, portions of facilities used for inpatient drug or alcohol treatment, service providers whose sole source of applicable Federal funds is Medicare or Medicaid, or facilities where WIC coupons are redeemed.

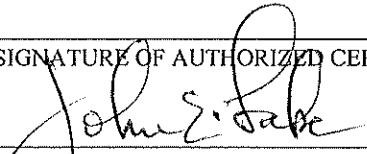
Failure to comply with the provisions of the law may result in the imposition of a civil monetary penalty of up to \$1,000 for each violation and/or the imposition of an administrative compliance order on the responsible entity.

By signing the certification, the undersigned certifies that the applicant organization will comply with the requirements of the Act and will not allow smoking within any portion of any indoor facility used for the provision of services for children as defined by the Act.

The applicant organization agrees that it will require that the language of this certification be included in any subawards which contain provisions for children's services and that all subrecipients shall certify accordingly.

The Public Health Services strongly encourages all grant recipients to provide a smoke-free workplace and promote the non-use of tobacco products. This is consistent with the PHS mission to protect and advance the physical and mental health of the American people.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL



TITLE

John E. Lake
Controller, Business & Financial Services

APPLICANT ORGANIZATION

ARIZONA DEPARTMENT OF HEALTH SERVICES

DATE SUBMITTED

6-26-09

ASSURANCES – NON-CONSTRUCTION PROGRAMS

Public reporting burden for this collection of information is estimated to average 15 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0040), Washington, DC 20503.

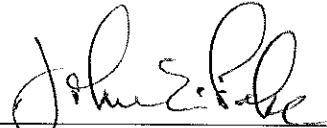
PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE OFFICE OF MANAGEMENT AND BUDGET. SEND IT TO THE ADDRESS PROVIDED BY THE SPONSORING AGENCY.

Note: Certain of these assurances may not be applicable to your project or program. If you have questions, please contact the awarding agency. Further, certain Federal awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

As the duly authorized representative of the applicant I certify that the applicant:

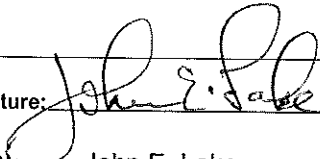
1. Has the legal authority to apply for Federal assistance, and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project costs) to ensure proper planning, management and completion of the project described in this application.
2. Will give the awarding agency, the Comptroller General of the United States, and if appropriate, the State, through any authorized representative, access to and the right to examine all records, books, papers, or documents related to the award; and will establish a proper accounting system in accordance with generally accepted accounting standard or agency directives.
3. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.
4. Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.
5. Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. §§4728-4763) relating to prescribed standards for merit systems for programs funded under one of the nineteen statutes or regulations specified in Appendix A of OPM's Standard for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).
6. Will comply with all Federal statutes relating to nondiscrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L.88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§1681-1683, and 1685- 1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. §§794), which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U.S.C. §§6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. §§290 dd-3 and 290ee-3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. §§3601 et seq.), as amended, relating to non-discrimination in the sale, rental or financing of housing; (i) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and (j) the requirements of any other nondiscrimination statute(s) which may apply to the application.
7. Will comply, or has already complied, with the requirements of Title II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal or federally assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.
8. Will comply with the provisions of the Hatch Act (5 U.S.C. §§1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.
9. Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §§276a to 276a-7), the Copeland Act (40 U.S.C. §276c and 18 U.S.C. §874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. §§327- 333), regarding labor standards for federally assisted construction subagreements.

10. Will comply, if applicable, with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is \$10,000 or more.
11. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetland pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451 et seq.); (f) conformity of Federal actions to State (Clear Air) Implementation Plans under Section 176(c) of the Clear Air Act of 1955, as amended (42 U.S.C. §§7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended, (P.L. 93-523); and (h) protection of endangered species under the Endangered Species Act of 1973, as amended, (P.L. 93-205).
12. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.
13. Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. §470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. §§ 469a-1 et seq.).
14. Will comply with P.L. 93-348 regarding the protection of human subjects involved in research, development, and related activities supported by this award of assistance.
15. Will comply with the Laboratory Animal Welfare Act of 1966 (P.L. 89-544, as amended, 7 U.S.C. §§2131 et seq.) pertaining to the care, handling, and treatment of warm blooded animals held for research, teaching, or other activities supported by this award of assistance.
16. Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§4801 et seq.) which prohibits the use of lead based paint in construction or rehabilitation of residence structures.
17. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act of 1984.
18. Will comply with all applicable requirements of all other Federal laws, executive orders, regulations and policies governing this program.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL 	TITLE John E. Lake Controller, Business & Financial Services
APPLICANT ORGANIZATION ARIZONA DEPARTMENT OF HEALTH SERVICES	DATE SUBMITTED 6-26-09

DISCLOSURE OF LOBBYING ACTIVITIES

Complete this form to disclose activities pursuant to 31 U.S.C. 1352
(See reverse for public burden disclosure.)

<p>1. Type of Federal Action: <input checked="" type="checkbox"/> a. contract <input 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</p>	<p>2. Status of Federal Action <input checked="" type="checkbox"/> a. bid/offer/application <input type="checkbox"/> b. initial award <input type="checkbox"/> c. post-award</p>	<p>3. Report Type: <input checked="" type="checkbox"/> a. initial filing <input type="checkbox"/> b. material change For Material Change Only: Year ____ Quarter ____ date of last report ____</p>
<p>4. Name and Address of Reporting Entity: <input checked="" type="checkbox"/> Prime <input type="checkbox"/> Subawardee Tier _____, if known: Arizona Department of Health Services 1740 West Adams Phoenix, AZ 85007 Congressional District, if known:</p>		<p>5. If Reporting Entity in No. 4 is Subawardee, Enter Name and Address of Prime: Congressional District, if known:</p>
<p>6. Federal Department/Agency: Centers for Disease Control and Prevention</p>		<p>7. Federal Program Name/Description: ARRA ELC Measuring Effectiveness of a New 13-Valent Pneumococcal Conjugate Vaccine CFDA Number, if applicable: <u>93.712</u></p>
<p>8. Federal Action Number, if unknown:</p>		<p>9. Award Amount, if known: \$</p>
<p>10. a. Name and Address of Lobbying Entity Not Applicable</p>		<p>b. Individuals Performing Services (including address if different from No. 10a.) (last name, first name, MI): Not Applicable</p>
<p>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 this 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.</p>		<p>Signature:  Print Name: <u>John E. Lake</u> Title: <u>Controller, Business and Financial Services</u> Telephone No.: <u>602-542-6342</u> Date: <u>6-26-09</u></p>
<p>Federal Use Only:</p>		<p>Authorized for Local Reproduction Standard Form - LLL (Rev. 7-97)</p>

Arizona Department of Health Services
2009 Epidemiology & Laboratory Capacity for Infectious Disease Grant Application
Evaluation of Meningococcal Conjugate Vaccine and High-Priority Vaccine Vaccine-
Preventable Diseases
CFDA# 93.712, CI04-040

The Arizona Department of Health Services (ADHS) will build upon its existing vaccine-preventable diseases program to evaluate the effectiveness of a new 13-valent pneumococcal conjugate vaccine. In Arizona, invasive infections due to *Streptococcus pneumoniae* are reportable by healthcare providers. In addition, laboratories are required to submit all *S. pneumoniae* isolates to the Arizona State Health Laboratory (ASHL). The Arizona State Immunization Information System (ASIIS) is an immunization registry designed to capture immunization data on individuals within the state, and physicians are mandated to report all immunizations administered to children from birth to 18 years of age.

Due to the fast track review and recommendation for PCV13 vaccination of infants, limited data are available on the effectiveness of PCV13 in preventing invasive streptococcal disease for various serogroups. ADHS will expand pneumococcal surveillance activities to support the Centers for Disease Control and Prevention (CDC) efforts to evaluate the new PCV13 vaccine. ADHS will continue to monitor case and laboratory reports daily to identify all cases of invasive infections due to *S. pneumoniae* in Arizona. The Arizona State Public Health Laboratory (ASHL) will forward *S. pneumoniae* isolates received at the state lab to the CDC for serotyping. ADHS staff will work with the CDC to develop and implement a case-control study, including developing protocols for case and control enrollment, creating and testing questionnaires, and analyzing results and data quality. Additionally, reported cases of invasive pneumococcal disease will be cross matched with data in ASIIS to verify immunization status and types of immunizations received.

Statement of Eligibility

The Arizona Department of Health Services (ADHS) is a current grantee under the Epidemiology and Laboratory Capacity Cooperative Agreement (CI04-040). In Arizona, health care providers are required to report all invasive infections due to *Streptococcus pneumoniae* as mandated under Arizona Administrative Code (AAC) R9-6-202 (http://www.azsos.gov/public_services/Title_09/9-06.pdf). This requirement for reporting is mandated for all healthcare providers regardless of facility or patient type. Therefore, the Arizona surveillance data includes both inpatient and outpatient cases. In addition, laboratories are required to submit all isolates of *S. pneumoniae* isolated from a sterile site to the Arizona State Health Laboratory (ASHL) under AAC R9-6-204.

In 2008, 1,077 invasive pneumococcal disease cases were reported in Arizona (<http://www.azdhs.gov/phs/oids/pdf/yearly2008.pdf>). Data for *S. pneumoniae* infections are typically divided into two age groups: all ages and children under 5 years of age. 133 cases of invasive pneumococcal disease were reported in children under 5 years of age in 2008 (http://www.azdhs.gov/phs/oids/pdf/data_reports/strep_pneumo_serotype_2008.pdf). Of these 133 cases, 92 were among children aged 2 years old and younger (unpublished data).

The ASHL received over 1,000 isolates of *S. pneumoniae* from sterile sites in 2008. 935 were from individuals over 5 years of age and 133 were from children under 5 years of age. The ASHL received specimens for every reported case of invasive pneumococcal disease in children under 5 (Appendix A - *Streptococcus pneumoniae* Serotype Analysis in Arizona, 2008: http://www.azdhs.gov/phs/oids/pdf/data_reports/strep_pneumo_serotype_2008.pdf).

Current Activities and Capacity

In 2007, a 7-valent pneumococcal conjugate vaccine (PCV7) was introduced, decreasing rates of invasive pneumococcal disease by 80%. A new 13-valent conjugate vaccine (PCV13), containing 6 additional serotypes, is expected to be licensed for use in infants in late 2009. Due to the fast track review and recommendations for PCV13 vaccination of infants, limited data are available on the effectiveness of PCV13 in preventing invasive pneumococcal disease for various serogroups.

In Arizona, invasive disease due to *S. pneumoniae* is a reportable condition. Healthcare providers are required to report all invasive infections due to *S. pneumoniae* and laboratories are required to submit all *S. pneumoniae* isolates to the Arizona State Health Laboratory (ASHL). Case investigations are typically conducted by local health departments; however, in the past, ADHS has worked with local health departments to have epidemiologists at the state level recruit and enroll cases and controls for specific studies to reduce bias and ensure project continuity and oversight. As a result, ADHS has participated in multiple case-control studies, including a recent study with the Centers for Disease Control and Prevention (CDC) on pertussis in infants.

Rates of invasive pneumococcal disease in cases < 5 years caused by serotypes included in the PC7 vaccine have decreased from 3.9/100,000 in 2002 to 0.2/100,000 in 2008. In 2008, 1,077

invasive pneumococcal disease cases were reported. 133 were among children under the age of five, but only one case was caused by a PCV7 vaccine serotype (6B). For 2008, the three most commonly reported serotypes in children under 5 years of age in Arizona were 7F, 19A, and 5 (http://www.azdhs.gov/phs/oids/pdf/data_reports/strep_pneumo_serotype_2008.pdf). Similar serotypes were also seen in adults; however, adult specimens are not fully characterized since factor typing is only performed for children 5 years of age and under due to resource issues.

Since 2008, ADHS has maintained a passive surveillance system for *S. pneumoniae* where submitted laboratory reports containing antibiotic susceptibility information are entered into a surveillance database and analyzed annually. For 2008, the passive surveillance system represented approximately 22% of all invasive *S. pneumoniae* cases reported to ADHS. This surveillance system is being validated to determine if passively reported data accurately represent antibiotic susceptibility trends for all reported invasive *S. pneumoniae* in Arizona.

The vaccine-preventable disease program works closely with the Office of Immunization Services to integrated disease and vaccine surveillance information. The Arizona State Immunization Information System (ASIIS) is an immunization registry designed to capture immunization data on individuals within the state. Providers are mandated under Arizona Revised Statute (A.R.S. §36-135) to report all immunizations administered to children from birth to 18 years of age to ADHS. The registry serves as a receptacle for accommodating these reported data. In this capacity, the registry provides a valuable tool for the management and reporting of immunization information to public health professionals, private and public healthcare providers, parents, guardians and other child care personnel.

These funds would be used to retain and enhance current invasive pneumococcal disease activities in Arizona. The Arizona Department of Health Services (ADHS) has declared that epidemiologist positions in the state will be considered "mission critical" and are eligible to be hired, despite a current hiring freeze. In addition, the department has two epidemiologists in the Office of Infectious Disease Services that are currently at risk of losing their funding due to the current budget crisis. Both epidemiologists work closely with the vaccine-preventable disease program and are familiar with surveillance systems and reporting requirements in the state. These funds would be used to retain these positions in the Office and would allow for rapid implementation of requested activities.

Operational Plan

Objective #1: By October 1, 2009, monitor case and laboratory reports daily to identify all cases of invasive *S. pneumoniae* infections in Arizona.

Methods: All physicians and laboratories are required to report all invasive infections due to *Streptococcus pneumoniae*. An epidemiologist will be retained to review randomly selected reports of invasive infections due to *Streptococcus pneumoniae* disease as described in the case-control study protocol to determine if cases meet the criteria for enrollment in the vaccine effectiveness case-control study. In addition, this position will work with other program staff and hospital laboratories to validate the data reported to the state health department. This would

include reviewing hospital records and laboratory results at selected facilities for a specified time period to identify unreported cases.

In 2009, there have been 534 cases of invasive pneumococcal disease reported in the state year-to-date. The 5 year median for reported cases of pneumococcal disease is 726 cases, with an average of 874 cases reported annually between 2004 and 2008. Arizona has an estimated population of 6.5 million with children aged less than 5 years comprising 8 percent of the population.

The Arizona Department of Health Services currently has floating epidemiologists which are funded by multiple project areas across the department and are available to respond to emerging needs in the program. Due to the current state financial situation, there is a risk of losing some of these funds which places these critical positions at risk of being cut from the department. ARRA grant funds would be used to partially support one of the existing floating epidemiologists, Clarisse Tsang. Clarisse has worked at ADHS for two years and has experience interviewing cases as a lead investigator of an enhanced surveillance project for coccidioidomycosis in Arizona. She has also interviewed cases during outbreaks, including a statewide measles outbreak. Clarisse works daily with surveillance data using the state electronic disease surveillance system, MEDSIS, and has performed validations of laboratory reports to monitor data quality and ensure that all diagnosed cases were reported to public health. Additionally, she is working with CDC to evaluate the treatment and clinical outcomes of *Nocardia* infections.

Measures of Effectiveness: Number of reported cases of invasive infections due to *Streptococcus pneumoniae* in Arizona. Number of unreported cases identified during validation process.

Objective #2: Beginning September 1, 2009, forward all *S. pneumoniae* isolates to CDC biweekly.

Methods: The Arizona State Public Health Laboratory (ASHL) will forward isolates received to the CDC for serotyping based upon study protocols. The epidemiologist will contact hospital and commercial laboratories monthly to identify positive results for *S. pneumoniae*. The epidemiologist will discuss reporting requirements with facilities that did not report cases to improve reporting of future cases.

Measures of Effectiveness: Percentage of reported cases with isolates submitted to ASHL. Percentage of received isolates submitted to the CDC.

Objective #3: By November 1, 2009, participate in study site conference calls with CDC to develop study protocols and materials.

Methods: The epidemiologist will work with staff at the CDC to integrate Arizona data into the national study according to the developed protocols. The epidemiologist will participate in conference calls organized by the CDC in order to discuss protocol development, study design,

and timelines for completion. In addition, the epidemiologist will be responsible for working with the CDC to identify target populations for study enrollment, questionnaire design and implementation, reporting of case and control interviews to CDC, and procedures for data cleaning and analysis.

Measures of Effectiveness: Percent of calls attended by at least one ADHS representative.

Objective #4: Upon licensure of PCV13, enroll cases and controls in the case-control study and conduct interviews using approved study forms.

Methods: The epidemiologist will work with staff at the CDC to develop and implement protocols for the case-control investigation and will participate in conference calls for sites participating in the study. Based upon these protocols, the epidemiologist will monitor reported cases daily to identify newly reported cases. This position will contact randomly selected cases of invasive pneumococcal disease as described in the case-control study protocol to determine if they are eligible to be enrolled in the study. She will interview all cases who consent to participate in the study and will enroll controls for each case using control selection methods outlined in the study protocol. All forms will be faxed to CDC within 1 week of completion.

Measures of Effectiveness: Percentage of cases enrolled in the study. Percentage of controls enrolled in the study. Number of completed case/control sets. Percentage of forms faxed to CDC.

Objective #5: By November 1, 2009, cross match reported cases of invasive *S. pneumoniae* disease with ASIIS to identify immunization status.

Methods: The Arizona State Immunization Information System (ASIIS) is an immunization registry designed to capture immunization data on individuals within the state. Providers are mandated under Arizona Revised Statute (A.R.S. §36-135) to report all immunizations administered to children from birth to 18 years of age to the state's health department. Reported cases of invasive *S. pneumoniae* will be cross matched with data in ASIIS to verify immunization status and types of immunizations received.

Measure of Effectiveness: Percentage of reported cases with documented immunization status completed.

Roles and Responsibilities

Floating Epidemiologist (Saved): The floating epidemiologist will be responsible for communicating with the CDC on study protocols and activities. In addition, this position will identify cases, conduct case and control interviews, contact laboratories to identify unreported cases, ensure specimens are forwarded to CDC, review immunization registry reports and physician records to verify immunization status of cases.

Program Manager: The program manager is a state-funded position that is responsible for supervision of the floating epidemiologist and programmatic and fiscal oversight of grant objectives and progress toward completion. This position will monitor performance measures and ensure performance measures are met.

Both of these positions are stationed in the Office of Infectious Disease Services, which is responsible for infectious disease surveillance, investigation, and prevention activities. The floating epidemiologist will work closely with the existing vaccine-preventable disease (VPD) epidemiologists and local health departments to identify and interview cases and controls. The program manager for the floating epidemiologist is also the manager for the VPD program in the state. The VPD program works closely with the Office of Immunization Services (OIS) and the program manager meets weekly with the OIS Office Chief to integrate epidemiology and vaccine services activities.

Performance Measures and Evaluation Plan

The program manager who supervises the floating epidemiologist will be responsible for tracking spending and progress towards completion of grant objectives. The program manager will generate a quarterly report to monitor activities related to ARRA funding including: information on total amount of funds received under this award, including the status of spent, obligated, and unobligated funds, and the number of jobs created or retained by this program. In addition, the program manager will generate project management updates with a description of the project and completion status for both programmatic activities. The program manager will also monitor progress on the evaluation measures listed in the operational plan to ensure that objectives of the project are being met (Appendix B – Performance Measures for Pneumococcal Vaccine Effectiveness Evaluation). Delays or deficiencies of greater than 1 month or 15% will be discussed with project and CDC staff to identify methods for improvement.

Measure of Effectiveness: Quarterly reports submitted to CDC and HHS within 10 days of the end of each quarter. Monthly update on the status of project and data for performance measures completed within 15 days of the end of each month.

Arizona Department of Health Services
 2009 Epidemiology & Laboratory Capacity for Infectious Disease Grant Application
 Measuring the Effectiveness of 13-valent Pneumococcal Vaccine
 CFDA# 93.712, CI04-040

Budget and Justification

All supplemental grant funds awarded under ARRA will be loaded into separate program areas and will be monitored independently from other ELC funds. Personnel assigned to activities supported by ARRA funds are required to track hours related to grant activities and to submit Labor Activity Reports (LAR) documenting time spent on grant activities.

A SALARIES AND WAGES \$ 47,500

Position & Title	Annual Salary	FTE	Time	Total Amount
Epidemiologist	\$47,500	0.50	2 years	\$47,500

Epidemiologist: The epidemiologist will monitor laboratory reports to identify cases of pneumococcal disease and attempt to enroll cases in the case-control study. This position will: contact laboratories to identify cases of pneumococcal disease, participate in CDC-sponsored conference calls to develop study methods, and conduct interviews of cases and controls.

B FRINGE BENEFITS \$20,425
 Employee Related Expenses (ERE) –% of Salary and Wages
 EDC: 43% of \$47,500

C CONSULTATION COSTS

D EQUIPMENT

E SUPPLIES \$2,950

General Office Supplies and Telephone Charges:
 \$50/month x 24 months = \$1,200

Supplies for the epidemiologist to contact cases and controls, request medical records and laboratory reports, and coordinate with CDC and local health departments.

Shipping Costs
 \$35/shipment x 50 shipments = \$1,750

F TRAVEL \$ 0
 Funds to ship isolates to CDC for additional testing and confirmation.

G OTHER

H INFORMATION TECHNOLOGY SERVICES \$1,581
 Required Department charges against salaries, wages, fringe benefits, consultant costs, travel, operating, and non-capital equipment

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2009 Epidemiology & Laboratory Capacity for Infectious Disease Grant Application
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CFDA# 93.712, C104-040

EDC: 2.23036% of \$70,875

I CONTRACTUAL

J TOTAL DIRECT COSTS \$72,456

K INDIRECT COSTS \$18,544
Charges against Salaries, Wages & Fringe Benefits
EDC: 27.3% of \$67,925

L TOTAL- PCV13 Evaluation \$91,000

Performance Measures for Pneumococcal Vaccine Effectiveness Evaluation

Performance Measure	Target	Completion Date	Frequency	Data Source and Reporting Method
Number of reported cases of meningococcal disease	12 per year	December 2011	monitored daily, reported monthly	NEDSS-compliant electronic disease surveillance system (MEDSIS).
Number of unreported cases identified	25 per year	December 2011	monthly	Commercial laboratory validation. Active surveillance with commercial labs.
Percentage of reported cases with isolates submitted to ASHL	90%	December 2011	monthly	Cross-match with MEDSIS and state laboratory data (StarLIMS).
Percentage of received isolates submitted to the CDC	90%	December 2011	quarterly	Number of isolates marked as sendouts in StarLIMS.
Percent of conference calls attended by at least one Arizona representative	95%	December 2011	quarterly	Roll call on conference call.
Percentage of cases enrolled in the study	90%	December 2011	monthly	Number of completed investigation forms. MEDSIS reports.
Percentage of controls contacted enrolled in the study	50%	December 2011	monthly	Number of completed investigation forms.
Number of completed case/control sets	40 per year	December 2011	monthly	Number of completed investigation forms.
Percentage of forms faxed to CDC	100%	December 2011	monthly	CDC verification.
Percentage of reported cases with documented immunization status completed	100%	December 2011	quarterly	Cross-match with MEDSIS and ASIIS.
Quarterly reports submitted to CDC and HHS within 10 days of the end of each quarter	100%	December 2011	quarterly	CDC verification. Compilation of data from above sources and performance measures.
Monthly update on the status of project and data for performance measures completed within 15 days of the end of each month	100%	December 2011	monthly	CDC verification. Compilation of data from above sources and performance measures.



DEPARTMENT OF HEALTH & HUMAN SERVICES

Program Support Center
Financial Management Service
Division of Cost Allocation

DCA Western Field Office
90 7th Street, Suite 4-800
San Francisco, CA 94103

John E. Lake
Controller
Arizona Department of Health Services
1740 West Adams St., Rm. 305
Phoenix, AZ 85007-2670

MAR 24 2009

Dear Mr. Lake:

A copy of an indirect cost Negotiation Agreement is attached. This Agreement reflects an understanding reached between your organization and a member of my staff concerning the rate(s) that may be used to support your claim for indirect costs on grants and contracts with the Federal Government. Please have the Agreement signed by a duly authorized representative of your organization and return it to me BY FAX, retaining the copy for your files. We will reproduce and distribute the Agreement to the appropriate awarding organizations of the Federal Government for their use.

In order to implement the FINAL indirect cost rate contained in the enclosed Agreement, an adjustment to the indirect costs claimed under your Federal awards may be required. For HHS project grants these adjustments must be made in accordance with the procedures for settlement of indirect costs on HHS project grants with final negotiated rates described in the appropriate "Guide" book for your institution. Adjustments under HHS contracts must be made in accordance with the provisions of the contracts. Adjustments under awards with other Federal agencies must be made in accordance with the policies of those agencies.

An indirect cost proposal together with required supporting information must be submitted to this office for each fiscal year in which your organization claims indirect costs under grants and contracts awarded by the Federal Government. Thus, a proposal for your FY ending 06/30/09, will be due no later than 12/31/09.

Sincerely,

Wallace Chan
Director

Attachment

PLEASE SIGN AND RETURN THE NEGOTIATION AGREEMENT BY FAX

STATE AND LOCAL RATE AGREEMENT

EIN #:

DATE: March 23, 2009

DEPARTMENT/AGENCY:
 Arizona Department of Health Services
 1740 West Adams St., Rm. 305

FILING REF.: The preceding
 Agreement was dated
 June 24, 2008

Phoenix AZ 85007-2670

The rates approved in this agreement are for use on grants, contracts and other agreements with the Federal Government, subject to the conditions in Section III.

SECTION I: INDIRECT COST RATES*

RATE TYPES: FIXED		FINAL	PROV. (PROVISIONAL)	PRED. (PREDETERMINED)	
TYPE	EFFECTIVE PERIOD		RATE (%)	LOCATIONS	APPLICABLE TO
	FROM	TO			
FINAL	07/01/07	06/30/08	25.8	All	Comm. Family Health
FINAL	07/01/07	06/30/08	15.1	All	Behavioral Hlth Svcs
FINAL	07/01/07	06/30/08	27.3	All	(A)
FINAL	07/01/07	06/30/08	43.1	All	Emergency Med Svcs
FINAL	07/01/07	06/30/08	19.5	All	Health & Child Care
FINAL	07/01/07	06/30/08	52.5	All	State Lab Services
FINAL	07/01/07	06/30/08	18.3	All	(B)
PROV.	07/01/08	UNTIL AMENDED	Use same rates and conditions as those cited for fiscal year ending June 30, 2008.		

- (A) Epidemiology and Disease Control Services
- (B) Vital Records/Planning/Director's Direct

***BASE:**

Direct salaries and wages including all fringe benefits and allocated Data Processing.

DEPARTMENT/AGENCY:
Arizona Department of Health Services

AGREEMENT DATE: March 23, 2009

SECTION II: SPECIAL REMARKS

TREATMENT OF FRINGE BENEFITS:

This organization charges the actual cost of each fringe benefit direct to Federal projects. However, it uses a fringe benefit rate which is applied to salaries and wages in budgeting fringe benefit costs under project proposals. The fringe benefits listed below are treated as direct costs.

TREATMENT OF PAID ABSENCES:

Vacation, holiday, sick leave pay and other paid absences are included in salaries and wages and are claimed on grants, contracts and other agreements as part of the normal cost for salaries and wages. Separate claims for the costs of these paid absences are not made.

DEFINITION OF EQUIPMENT

Equipment is defined as tangible nonexpendable personal property having a useful life of more than one year and an acquisition cost of \$5,000 or more per unit.

The following fringe benefits are treated as direct costs:
FICA, HEALTH/LIFE INSURANCE, AND RETIREMENT.

DEPARTMENT/AGENCY:
Arizona Department of Health Services

AGREEMENT DATE: March 23, 2009

SECTION III: GENERAL

A. LIMITATIONS:

The rates in this Agreement are subject to any statutory or administrative limitations and apply to a given grant, contract or other agreement only to the extent that funds are available. Acceptance of the rates is subject to the following conditions: (1) Only costs incurred by the organization were included in its indirect cost pool as finally accepted; such costs are legal obligations of the organization and are allowable under the governing cost principles; (2) The same costs that have been treated as indirect costs are not claimed as direct costs; (3) Similar types of costs have been accorded consistent accounting treatment; and (4) The information provided by the organization which was used to establish the rates is not later found to be materially incomplete or inaccurate by the Federal Government. In such situations the rate(s) would be subject to renegotiation at the discretion of the Federal Government.

B. ACCOUNTING CHANGES:

This Agreement is based on the accounting system purported by the organization to be in effect during the Agreement period. Changes to the method of accounting for costs which affect the amount of reimbursement resulting from the use of this Agreement require prior approval of the authorized representative of the cognizant agency. Such changes include, but are not limited to, changes in the charging of a particular type of cost from indirect to direct. Failure to obtain approval may result in cost disallowances.

C. FIXED RATES:

If a fixed rate is in this Agreement, it is based on an estimate of the costs for the period covered by the rate. When the actual costs for this period are determined, an adjustment will be made to a rate of a future year(s) to compensate for the difference between the costs used to establish the fixed rate and actual costs.

D. USE BY OTHER FEDERAL AGENCIES:

The rates in this Agreement were approved in accordance with the authority in Office of Management and Budget Circular A-87 Circular, and should be applied to grants, contracts and other agreements covered by this Circular, subject to any limitations in A above. The organization may provide copies of the Agreement to other Federal Agencies to give them early notification of the Agreement.

BY THE DEPARTMENT/AGENCY:
Arizona Department of Health Services

(DEPARTMENT/AGENCY)

(SIGNATURE)

James H. Humble

(NAME)

Assistant Director - CFO

(TITLE)

March 31, 2009

(DATE)

ON BEHALF OF THE FEDERAL GOVERNMENT:

DEPARTMENT OF HEALTH AND HUMAN SERVICES

(AGENCY)

(SIGNATURE)

Wallace Chan

(NAME)

DIRECTOR, DIVISION OF COST ALLOCATION

(TITLE)

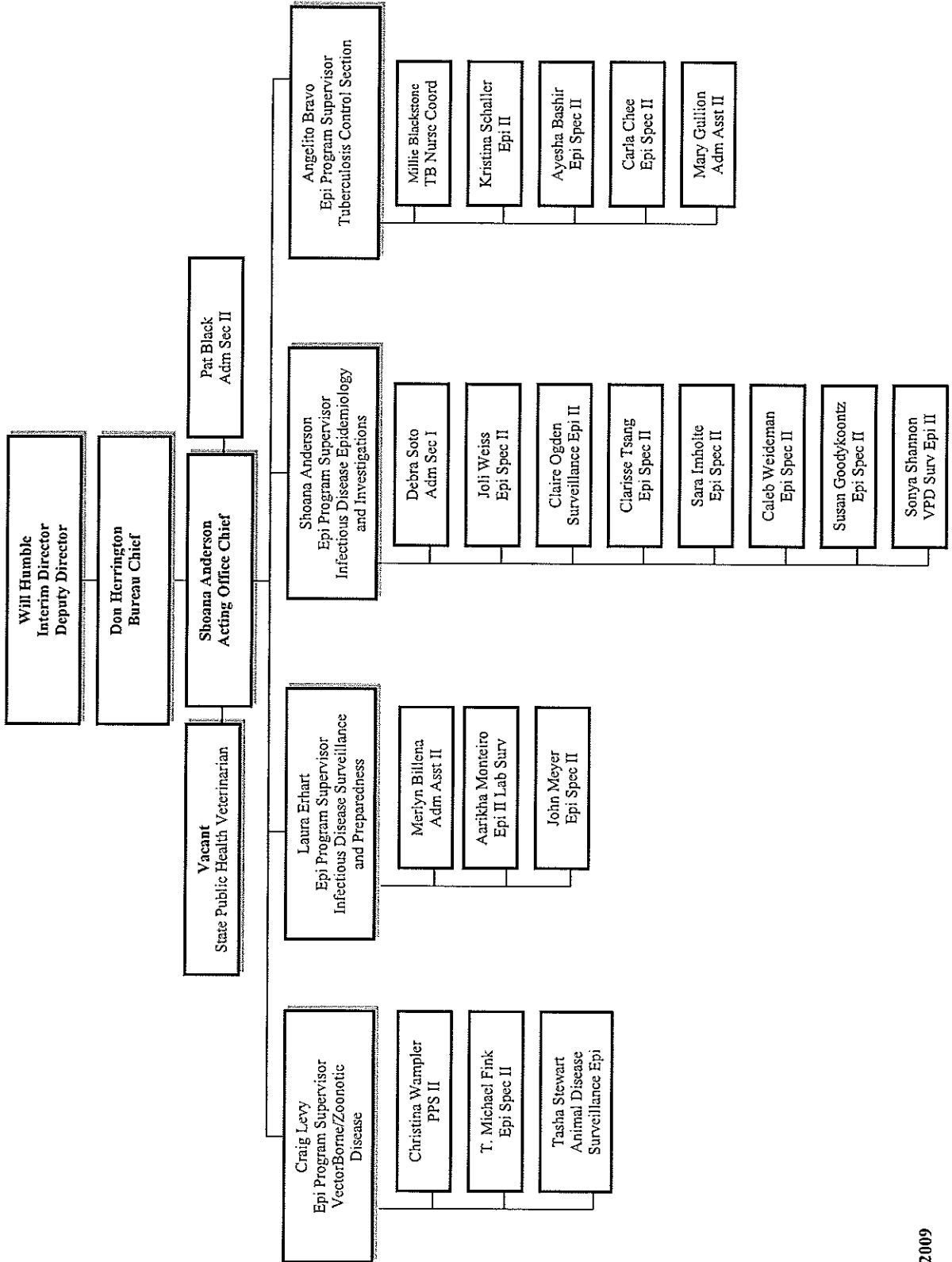
March 23, 2009

(DATE) 0241

HHS REPRESENTATIVE: *Karen Wong*

Telephone: *(415) 437-7820*

**Arizona Department of Health Services
Division of Public Health Services
Office of Infectious Disease Services**



Clarisse A. Tsang

Clarisse.Tsang@azdhs.gov

380 N. Jentilly Lane
Chandler, AZ 85226
(206) 419-7264

EDUCATION	University of California, Berkeley, Master of <u>Public Health</u> in Infectious Diseases	May 2007
	Massachusetts Institute of Technology, Bachelor of Science in <u>Biology</u>	June 2005
	Bachelor of Science in <u>Materials Science and Engineering</u>	June 2004

EXPERIENCE

Epidemiologist Specialist II, Arizona Department of Health Services, Office of Infectious Disease Services Investigations & Epidemiology, Phoenix, AZ, Nov 2007-present

- Developed SAS programs to monitor, validate, and analyze coccidioidomycosis (valley fever) data.
- Developed SAS programs to monitor, validate, and analyze hospital admissions for heart attacks and asthma exacerbations in relation to cigarette smoking from the Arizona Hospital Discharge Database.
- Led the generation of reports, abstracts, posters, presentations, and future publications on findings for distribution to public health professionals, healthcare providers, local stakeholders, and the public.
- Organized and managed Nocardia investigation in collaboration with the CDC. Reviewed medical records and communicated with hospitals, physicians, and laboratories. Led a national conference call to assist other states in collecting this data.
- Monitored and managed infectious disease laboratory reports using Microsoft Access & Excel. In particular, confirmed and probable swine-flu cases including healthcare workers, hospitalized and pregnant patients were monitored during the current H1N1 outbreak. Coordinated the flow of information among laboratories, hospitals, local health departments, and the public.
- Conducted interviews to investigate case characteristics, sources of outbreaks, diagnostic and treatment methods, and disease severity of valley fever and foodborne diseases.
- Developed educational materials for healthcare providers and the public, including the online continuing medical education course entitled *Symposium on Coccidioidomycosis for the Primary-Care Physician* and flyers in promotion of *Valley Fever Awareness Week 2008*.
- Designed the swine-flu webpage for immediate communication, guidelines and recommendations for the local health departments, healthcare providers, laboratories, schools, and the public.
- During the measles outbreak in Tucson in 2008, led the call center for investigation of suspect cases and answered questions from the public. Assisted in collecting specimens and with the vaccination clinics.
- Collected and analyzed data for foodborne outbreaks, communicated with the CDC and local health department and addressed calls from the public (ex: Salmonella Saintpaul outbreak 2008)
- Performed tick control measures by spraying pesticides and collaring dogs to prevent rocky mountain spotted fever. Educated the public on tick-borne diseases.

Intern, Seattle & King County Public Health, Environmental Health Services Division, Seattle, WA, Sept-Nov 2007

- Monitored database of bats for rabies testing and created maps of prevalence of rabid bats and different types of bats using ArcMap.
- Used mosquito collection data for West Nile Virus to develop graphs for analyzing prevalence of mosquito species in relations to temperature and precipitation.

Field/Office Technician, California Department of Health Services, Vector-Borne Disease Section, Elk Grove and Richmond, CA, May-Aug 2006

- Surveillance of vector-borne diseases through rodent/insect trapping and blood sampling; Identified species of fleas and ticks using a microscope.
- Analyzed plague and hantavirus collection data using Terrain Navigator, ArcMap and Microsoft Excel.
- Monitored West Nile Virus dead bird and squirrel data using Microsoft Access.
- Consulted with local health departments, US forest services, mosquito control agencies, and the public in measures to control the spread of infectious diseases.

Investigator for Strep Throat Outbreak, Outbreak Investigation class, Berkeley, CA, Jan-May 2006

- Designed questionnaires via EpiData, collected and analyzed data using STATA.
- Hypothesized and analyzed potential causes of outbreak(s) from investigative data/reports.

Researcher, Biomaterials and Immunology Laboratory, Cambridge, MA, Aug 2004-Jun 2005

- Evaluated the use of poly-histidine micropheres as encapsulators for drug delivery.
- Analyzed the effectiveness of protein encapsulation under fluorescent microscope.
- Examined the release profile of the encapsulated proteins.

Researcher, Microbial Genetics Laboratory, Cambridge, MA, Sept-Dec 2004

- Isolated DNA and RNA from bacteria cultures and examined the regulation of polyketide synthase genes for antibiotics synthesis in *Rhodococcus* sp. I24.
- Wrote a research report entitled *Polyketide Synthase Expression in Rhodococcus sp. I24*, Dept of Biology, M.I.T., Dec 2004.

PUBLICATIONS

1. Tsang C, Anderson S, Imholte S, Erhart L, Casimir B, Chen S, Christ C, Park B, Chiller T, Komatsu K, Sunenshine R., *Enhanced Surveillance of Coccidioidomycosis*, Manuscript in Preparation.
2. Tsang C, Anderson S, Imholte S, Erhart L, Casimir B, Chen S, Christ C, Park B, Chiller T, Komatsu K, Sunenshine R., *Epidemiology Update of Coccidioidomycosis in Arizona*, Proceedings of the 53rd Annual Coccidioidomycosis Study Group Meeting, April 4, 2009.
3. Chang L, Ahlquist A, Sunenshine R, Harris J, Imholte S, Tsang C, Anderson S, Erhart L, Schumacher M, Santana S, Nessel A, Komatsu K, Chen S, Chiller T, Park B., *Investigation of an Increased Incidence of Coccidioidomycosis in the Northwest Valley, Metropolitan Phoenix*, Manuscript in Preparation.
4. Sunenshine RH, Anderson S, Erhart L, Tsang C, Imholte S, Chen S, Park B, Casimir B, Chiller T, Komatsu K., *Arizona Coccidioidomycosis Surveillance: Improving Assessment of Disease Burden and Impact*, Proceedings of the 52nd Annual Coccidioidomycosis Study Group Meeting, April 5, 2008.

Lead author(s) on the following reports:

Valley Fever Annual Report 2007, Arizona Department of Health Services, Office of Infectious Disease Services, October 2008.

Arizona – Valley Fever Report, June 2008, Arizona Department of Health Services, June 2008.

Arizona – Valley Fever Report, May 2008, Arizona Department of Health Services, May 2008.

Arizona – Valley Fever Report, April 2008, Arizona Department of Health Services, April 2008.

Arizona – Valley Fever Report, March 2008, Arizona Department of Health Services, March 2008.

Arizona – Valley Fever Report, February 2008, Arizona Department of Health Services, Feb. 2008.

Arizona – Valley Fever Report, January 2008, Arizona Department of Health Services, January 2008.

Arizona – Valley Fever Report, December 2007, Arizona Department of Health Services, Dec 2007.

Acknowledged as a student participant in:

Vector-Borne Diseases in California, 2006 Annual Report, California Department of Health Services, Vector-Borne Disease Section, 2006.

CONFERENCES

Tsang C, Anderson S, Imholte S, Erhart L, Casimir B, Chen S, Christ C, Park B, Chiller T, Komatsu K, Sunenshine R., *Epidemiology Update of Coccidioidomycosis in Arizona*, Arizona Department of Health Services, Center for Disease Control and Prevention, Presentation at the 53rd Annual Coccidioidomycosis Study Group Meeting, April 4, 2009.

Tsang C, Chen S, Anderson S, Erhart L, Park B, Casimir B, Imholte S, Chiller T, Komatsu KK, Wesoloskie T, Sunenshine RH., *Coccidioidomycosis Surveillance: Improving Assessment of US Disease Burden*, Poster at the Arizona Public Health Association Conference, September 2008.

INVITED TALKS

Tsang, C., *Valley Fever in Arizona*, Arizona Department of Health Services, Presentation at the Maricopa County Mining District Recommendation Committee Meeting, March 11, 2008.

EDUCATION MATERIAL

Led the creation of the following on-line Continuing Medical Education activity:

Symposium on Coccidioidomycosis for the Primary-Care Physician, Arizona Department of Health Services, Valley Fever Center for Excellence, University of Arizona, Creation in process.

Gave input on the information presented in the video:

Valley Fever: The Impact on Arizonans, Arizona Department of Health Services, 2008.

THESES Tsang, C., *A Research Proposal: Improved Routine Surveillance of Plague in the State of California*, University of California, Berkeley, MPH thesis, March 2007.

Tsang C., *Plague Surveillance in Alpine, Lassen, Modoc and Plumas Counties, 1994-2005*, California Department of Health Services, Vector-Borne Disease Section, Oct 2006.

SKILLS Computer: SAS | STATA | EpiData | ArcMap | Terrain Navigator | MS Office XP (Word, Excel, PowerPoint, Access, Publisher) | Excellent internet research skills

Laboratory: Isolation and characterization of microbial agents, Polymerase Chain Reaction (PCR) DNA sequencing, Microscopic analysis, Gel electrophoresis, etc.

Language: English; conversational in some Spanish and Chinese (Cantonese/Mandarin)

PROFESSIONAL MEMBERSHIP

American Public Health Association

Nov 2006-Nov 2007

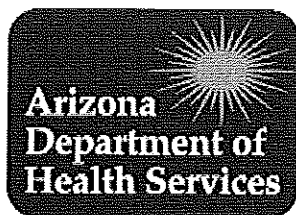
Arizona Public Health Association

Sept 2008-present

Co-chair of the Epidemiology Section

Nov2008-present

- Organized events geared towards professional development of and team-strengthening amongst epidemiologists throughout the state of Arizona.



***Streptococcus pneumoniae* Serotype Analysis in Arizona, 2008**
 Arizona Department of Health Services
 Infectious Disease Epidemiology and Investigations Section

Serotype analysis for invasive *Streptococcus pneumoniae* cases <5 years old submitted to the Arizona State Health Laboratory (ASHL), 2008.

SEROTYPE	COUNT	PERCENT
Serotype 1	3	2.3%
Serotype 3	1	0.8%
Serotype 5	12	9.0%
Serotype 6	1	0.8%
Serotype 6B	1	0.8%
Serotype 7	2	1.5%
Serotype 7F	16	12.0%
Serotype 8	1	0.8%
Serotype 11	1	0.8%
Serotype 12	4	3.0%
Serotype 12B	1	0.8%
Serotype 12F	1	0.8%
Serotype 15	5	3.8%
Serotype 15B	2	1.5%
Serotype 19	5	3.8%
Serotype 19A	13	9.8%
Serotype 22	1	0.8%
Serotype 23	1	0.8%
Serotype 33A	1	0.8%
Not Typeable	11	8.3%
Unknown	50	37.6%
TOTAL:	133	100%

Serotype frequencies for invasive *Streptococcus pneumoniae* cases ≤5 years old reported to the Arizona Department of Health Services (ADHS) in 2008.

In total, 133 invasive *Streptococcus pneumoniae* cases ≤5 years old were reported to Arizona Department of Health Services (ADHS) in 2008. The most frequent serotype for invasive cases ≤5 years old was serotype 7F at 12%, or 22% of cases with a known serotype. The pneumococcal conjugate vaccine (PCV7) is a 4-dose series recommended since 2000 for children younger than 2 years of age. This vaccine contains serotypes 4, 9V, 14, 19F, 23F, 18C, and 6B. Arizona had one reported invasive *Streptococcus pneumoniae* case with a vaccine-preventable serotype in 2008 (6B). An isolate was not sent to the ASHL for serotyping analysis for 37.6% of the invasive cases, listed here as an unknown serotype.

Serotype analysis for invasive *Streptococcus pneumoniae* cases >5 years old submitted to the Arizona State Health Laboratory (ASHL), 2008.

<u>SEROTYPE</u>	<u>COUNT</u>	<u>PERCENT</u>
Serotype 1	2	0.2%
Serotype 3	67	7.2%
Serotype 4	10	1.1%
Serotype 5	31	3.3%
Serotype 6	21	2.2%
Serotype 7	98	10.5%
Serotype 8	40	4.3%
Serotype 9	14	1.5%
Serotype 10	10	1.1%
Serotype 11	27	2.9%
Serotype 12	46	4.9%
Serotype 14	8	0.9%
Serotype 15	25	2.7%
Serotype 17	2	0.2%
Serotype 18	5	0.5%
Serotype 19	95	10.2%
Serotype 20	4	0.4%
Serotype 22	21	2.2%
Serotype 23	22	2.3%
Serotype 33	13	1.4%
Serotype 37	4	0.4%
Not Typeable	95	10.2%
Unknown	275	29.4%
TOTAL:	935	100%

Serotype frequencies for invasive *Streptococcus pneumoniae* cases >5 years old reported to the Arizona Department of Health Services (ADHS) in 2008.

For 2008, 935 invasive *Streptococcus pneumoniae* cases >5 years old were reported to ADHS. This represents 87.5% (935/1068) of all invasive *Streptococcus pneumoniae* cases reported in 2008. The most frequent serotypes for invasive cases >5 years old were serotype 7 (10.5% of the reported cases or 17.3% of those with known serotypes) and serotype 19 with 10.2% of the reported invasive cases. For invasive cases > 5 years of age, approximately 30% of them did not have a determined serotype. During 2008, the state laboratory conducted serotyping for all ages but only determined the factor types for cases ≤5 years. The factor type is important for fully characterizing the vaccine strains, and thus, we cannot determine whether invasive *Streptococcus pneumoniae* cases >5 years were infected with a strain found in the pneumococcal conjugate vaccine (PCV7).