

Final Progress Report for Research Projects Funded by Health Research Grants

Instructions: Please complete all of the items as instructed. Do not delete instructions. Do not leave any items blank; responses must be provided for all items. If your response to an item is “None”, please specify “None” as your response. “Not applicable” is not an acceptable response for any of the items. There is no limit to the length of your response to any question. Responses should be single-spaced, no smaller than 12-point type. The report **must be completed using MS Word**. Submitted reports must be Word documents; they should not be converted to pdf format. Questions? Contact Health Research Program staff at 717-783-2548.

1. **Grantee Institution:** Hepatitis B Foundation
2. **Reporting Period (start and end date of grant award period):** 1/1/13 - 12/31/13
3. **Grant Contact Person (First Name, M.I., Last Name, Degrees):** Chari Cohen, MPH, DrPH(c)
4. **Grant Contact Person’s Telephone Number:** 215-489-4930
5. **Grant SAP Number:** 4100062207
6. **Project Number and Title of Research Project:** 1 - Perceptions of Hepatitis B Vaccine Status Among High Risk Foreign-Born Individuals in Philadelphia
7. **Start and End Date of Research Project:** 1/1/13 - 12/31/13
8. **Name of Principal Investigator for the Research Project:** Chari Cohen, MPH, DrPH(c)
9. **Research Project Expenses.**

9(A) Please provide the total amount of health research grant funds spent on this project for the entire duration of the grant, including indirect costs and any interest earned that was spent:

\$ 720.28

9(B) Provide the last names (include first initial if multiple individuals with the same last name are listed) of **all** persons who worked on this research project and were supported with health research funds. Include position titles (Principal Investigator, Graduate Assistant, Post-doctoral Fellow, etc.), percent of effort on project and total health research funds expended for the position. For multiple year projects, if percent of effort varied from year to year, report in the % of Effort column the effort by year 1, 2, 3, etc. of the project (x% Yr 1; z% Yr 2-3).

Last Name, First Name	Position Title	% of Effort on Project	Cost
Kim, John	Summer Intern	100%	\$700

9(C) Provide the names of **all** persons who worked on this research project, but who *were not* supported with health research funds. Include position titles (Research Assistant, Administrative Assistant, etc.) and percent of effort on project. For multiple year projects, if percent of effort varied from year to year, report in the % of Effort column the effort by year 1, 2, 3, etc. of the project (x% Yr 1; z% Yr 2-3).

Last Name, First Name	Position Title	% of Effort on Project
Cohen, Chari	Project Director	4%
Evans, Alison	Statistical Advisor	1%

9(D) Provide a list of **all** scientific equipment purchased as part of this research grant, a short description of the value (benefit) derived by the institution from this equipment, and the cost of the equipment.

Type of Scientific Equipment	Value Derived	Cost
None		

10. Co-funding of Research Project during Health Research Grant Award Period. Did this research project receive funding from any other source during the project period when it was supported by the health research grant?

Yes _____ No _____

If yes, please indicate the source and amount of other funds:

11. Leveraging of Additional Funds

11(A) As a result of the health research funds provided for this research project, were you able to apply for and/or obtain funding from other sources to continue or expand the research?

Yes _____ No _____

If yes, please list the applications submitted (column A), the funding agency (National Institutes of Health—NIH, or other source in column B), the month and year when the application was submitted (column C), and the amount of funds requested (column D). If

you have received a notice that the grant will be funded, please indicate the amount of funds to be awarded (column E). If the grant was not funded, insert “not funded” in column E.

Do not include funding from your own institution or from CURE (tobacco settlement funds). Do not include grants submitted prior to the start date of the grant as shown in Question 2. If you list grants submitted within 1-6 months of the start date of this grant, add a statement below the table indicating how the data/results from this project were used to secure that grant.

A. Title of research project on grant application	B. Funding agency (check those that apply)	C. Month and Year Submitted	D. Amount of funds requested:	E. Amount of funds to be awarded:
None	<input type="checkbox"/> NIH <input type="checkbox"/> Other federal (specify: _____) <input type="checkbox"/> Nonfederal source (specify: _____)		\$	\$
	<input type="checkbox"/> NIH <input type="checkbox"/> Other federal (specify: _____) <input type="checkbox"/> Nonfederal source (specify: _____)		\$	\$

11(B) Are you planning to apply for additional funding in the future to continue or expand the research?

Yes No

If yes, please describe your plans: We plan to use these preliminary results to seek additional funds, both federal and private, for project continuation and expansion.

12. Future of Research Project. What are the future plans for this research project?

We plan to use these preliminary results to continue data collection for this study, and expand the research question to look for factors associated with hepatitis B virus (HBV) vaccination in high-risk Asian and Pacific Islanders (APIs) in Philadelphia.

13. New Investigator Training and Development. Did students participate in project supported internships or graduate or post-graduate training for at least one semester or one summer?

Yes ___x___ No _____

If yes, how many students? Please specify in the tables below:

	Undergraduate	Masters	Pre-doc	Post-doc
Male		1		
Female				
Unknown				
Total		1		

	Undergraduate	Masters	Pre-doc	Post-doc
Hispanic				
Non-Hispanic		1		
Unknown				
Total		1		

	Undergraduate	Masters	Pre-doc	Post-doc
White				
Black				
Asian		1		
Other				
Unknown				
Total		1		

14. Recruitment of Out-of-State Researchers. Did you bring researchers into Pennsylvania to carry out this research project?

Yes _____ No ___x___

If yes, please list the name and degree of each researcher and his/her previous affiliation:

15. Impact on Research Capacity and Quality. Did the health research project enhance the quality and/or capacity of research at your institution?

Yes ___x___ No _____

If yes, describe how improvements in infrastructure, the addition of new investigators, and other resources have led to more and better research.

The results of this study have enhanced our hepatitis B public health research program, helped to elicit important data that will impact future research, has opened new avenues for future research, and has fostered training of a future public health practitioner and researcher.

16. Collaboration, business and community involvement.

16(A) Did the health research funds lead to collaboration with research partners outside of your institution (e.g., entire university, entire hospital system)?

Yes No

If yes, please describe the collaborations:

We conducted this project with a student intern from Drexel University School of Public Health, and collaborated with Drexel School of Public Health (SoPH) to complete the project.

16(B) Did the research project result in commercial development of any research products?

Yes No

If yes, please describe commercial development activities that resulted from the research project:

16(C) Did the research lead to new involvement with the community?

Yes No

If yes, please describe involvement with community groups that resulted from the research project:

Yes, the study results have helped to promote, enhance and further our relationships with the Asian community leaders in Philadelphia, as well as with Drexel University SoPH. This will have a positive impact on our future programming in Philadelphia.

17. Progress in Achieving Research Goals, Objectives and Aims.

List the project goals, objectives and specific aims (as contained in the grant agreement). Summarize the progress made in achieving these goals, objectives and aims for the period that the project was funded (i.e., from project start date through end date). Indicate whether or not each goal/objective/aim was achieved; if something was not achieved, note the reasons why. Describe the methods used. If changes were made to the research goals/objectives/aims, methods, design or timeline since the original grant application was

submitted, please describe the changes. Provide detailed results of the project. Include evidence of the data that was generated and analyzed, and provide tables, graphs, and figures of the data. List published abstracts, poster presentations and scientific meeting presentations at the end of the summary of progress; peer-reviewed publications should be listed under item 20.

This response should be a DETAILED report of the methods and findings. It is not sufficient to state that the work was completed. Insufficient information may result in an unfavorable performance review, which may jeopardize future funding. If research findings are pending publication you must still include enough detail for the expert peer reviewers to evaluate the progress during the course of the project.

Health research grants funded under the Tobacco Settlement Act will be evaluated via a performance review by an expert panel of researchers and clinicians who will assess project work using this Final Progress Report, all project Annual Reports and the project's strategic plan. After the final performance review of each project is complete, approximately 12-16 months after the end of the grant, this Final Progress Report, as well as the Final Performance Review Report containing the comments of the expert review panel, and the grantee's written response to the Final Performance Review Report, will be posted on the CURE Web site.

There is no limit to the length of your response. Responses must be single-spaced below, no smaller than 12-point type. If you cut and paste text from a publication, be sure symbols print properly, e.g., the Greek symbol for alpha (α) and beta (β) should not print as boxes (\square) and include the appropriate citation(s). DO NOT DELETE THESE INSTRUCTIONS.

The purpose of this study was to assess the self-reported vaccination status and vaccine perceptions among high-risk Asian and Pacific Islander (API) and African immigrant communities in Southeastern Pennsylvania. These communities have disproportionately high rates of chronic Hepatitis B Virus (HBV) infection. Using anonymous data collected from 935 individuals, we assessed the agreement between people's perception of having ever been vaccinated against HBV, and their actual hepatitis B immune status. Results from this study will allow us to better understand the health literacy and cultural barriers faced by these communities, and will be important in developing population-based interventions to reduce HBV in this region.

Project Aims

Specific Aim 1: To assess the vaccination and immune status of a cross-sectional convenience sample of 935 foreign-born high risk individuals in Philadelphia, PA.

Objective 1A: To evaluate the rate of immunity in the cohort.

Objective 1B: To assess the agreement between perception of ever having received a hepatitis B vaccine with actual immune status.

All project aims were met during the project period.

This project utilized a dataset created by the Hepatitis B Foundation based upon results of our community Hepatitis B Virus (HBV) screening program.

Background

In a previous study, which was conducted between June 2008 and December 2011, 965 individuals over the age of 18 were screened at community sites, churches, and health fairs throughout Philadelphia in locations within ethnic communities with high HBV infection risk. At each screening, participants completed a self-administered questionnaire (SAQ) about demographic and risk factors, including HBV immunization history. SAQs were available in English, Chinese, Vietnamese, Spanish, and Korean, and native speakers were available for assistance. Self-reported HBV immunization was elicited from the answer to the question “Have you ever received vaccination or shots to protect you from hepatitis B?” Subjects who answered “Yes” to this question were classified as having self-reported HBV immunization. Those who answered “No”, “Don’t know”, or who did not respond to this question were classified as non-reporters of immunization. Dates, number of doses, or other details of reported immunization were not included in the questionnaire.

Serologic tests for hepatitis B surface antibody (anti-HBs) and hepatitis B surface antigen (HBsAg) were performed on samples collected at screening. Other HBV markers were not tested. Serologic and questionnaire data were available from 946/965 participants (98.0%). Participants were notified of their test results and referred to their physicians or other resources for follow-up or immunization, as appropriate. Upon completion of data collection in this past study, all data were entered into an Excel database.

Project Methods

During the 2012 Formula Health Research Grant project period, January 1, 2013 to December 31, 2013, the data in the above described Excel database were cleaned, and adjustment was made for missing responses. The data were then analyzed to answer the research questions. This included descriptive statistics (frequencies) to describe the cohort of 965 individuals for: hepatitis B infection status (HBsAg); hepatitis B immune status (HBsAb); gender; age; place of birth; and English proficiency. Univariate logistic regression was used to look at predictors independently to see if they were significantly associated with the two outcomes (immune vs. not immune; reporting being vaccinated vs. not reporting being vaccinated). Multivariate logistic regression was then used to identify multiple independent predictors of each outcome. Positive and negative predictive values were calculated to assess the proportion of agreement with each outcome (i.e. those reporting no past vaccination who were HBV-susceptible, and those reporting past vaccination who were immune).

Project Results

Among 946 participants with serology and questionnaire data, 61 (6.4%) tested HBsAg+, indicating current infection with HBV. Among HBsAg negative (HBsAg-) subjects, 492 (55.6%) were anti-HBs positive (anti-HBs+) (indicating immunity) and 393 (44.4%) anti-HBs- (indicating susceptibility). Among 177 self-reporting past HBV immunization, 8 (4.5%) were

HBsAg+ and 56 (31.6%) were anti-HBs-, i.e. 36.1% of participants reporting past vaccination may have misperceived themselves as immune to HBV infection. The positive predictive value (PPV) of vaccination self-report for serology indicating immunity (anti-HBs+) was 0.638 (95% CI 0.563-0.709). The negative predictive value (NPV, i.e. proportion of those reporting no past vaccination who were HBV-susceptible) was 0.438 (0.402-0.474). Please refer to Table 1 for details.

Among those reporting HBV immunization, the proportion with anti-HBs+ serology was not significantly associated with age group, gender, API vs. other race, US vs. foreign born, or language preferences. Among those not reporting HBV immunization, the proportion with anti-HBs- serology was significantly associated with race (45.0% API vs. 58.6% other race, $p=0.01$) and primary language (59.3% English vs. 45.8% other, $p=0.006$) but not with age group, gender, or birthplace (data not shown). Multivariable analyses did not change these findings.

Discussion of Results

Denniston et al¹ reported a PPV of 0.53 for self-reported HBV immunization in the National Health and Nutrition Examination Survey (NHANES) and highlighted the dangers of dependence on self-report of vaccination in individuals' misperception of immunity, missed opportunities for vaccination, and the need for routine data collection systems for adult vaccinations. In our study, PPV was higher (0.64), which is not unexpected in a population with higher exposure to natural infection HBV since PPV increases with prevalence. We also used a less rigorous definition of immunization and were limited to serology that did not allow distinction between natural and vaccine-induced immunity. Those who tested as susceptible but believed that they had been immunized may have been vaccine non-responders, may have mistaken other immunizations for HBV vaccine, or may not have fully understood the question asked. Because the SAQ did not include questions about timing and number of vaccine doses, we cannot exclude the possibilities of waning anti-HBs titers with time or lack of completion of the full vaccine dose schedule.

Our findings have direct relevance for public health practitioners conducting HBV screening in high risk populations, where resource limitations may not always allow verification of self-reported immunization history. In our program, all subjects are tested regardless of immunization self-report, and all who test as susceptible are advised to be immunized and provided with free or low cost options for doing so. Had we relied upon subjects' reports of immunization, nearly one-third of HBV-susceptible subjects would not have been informed of their susceptible status. We also found that nearly 13% of HBV-infected individuals, unaware of their infection status, believed themselves to have been immunized.

Our study was conducted largely in Asian-American immigrant communities where the risk of HBV infection is high. Historically, foreign-born individuals in the U.S. with limited English proficiency, including APIs, exhibit low health literacy^{2,3,4}, which is a barrier to effective health communication⁵. Our findings highlight the need for improved health literacy in Asian immigrant communities through culturally-competent HBV education and for the adoption of key recommendations of the Institute of Medicine's 2010 report on viral hepatitis prevention and control, especially the continued development of programs to increase knowledge and awareness

of HBV among providers and at-risk populations and the expansion of immunization registries and other information systems to include adults⁶.

Literature Cited

1. Denniston MM, Byrd KK, Klevens RM, Drobeniuc J, Kamili S, Jiles RB. An assessment of the performance of self-reported vaccination status for hepatitis B, national health and nutrition examination survey 1999-2008. *Am. J. Public Health*. Oct 2013;103(10):1865-1873.
2. Nguyen GT, Bowman MA. Culture, language, and health literacy: communicating about health with Asians and Pacific Islanders. *Fam. Med*. Mar 2007;39(3):208-210.
3. Kim W, Keefe RH. Barriers to healthcare among Asian Americans. *Social work in public health*. May 2010;25(3):286-295.
4. Lee HY, Vang S. Barriers to cancer screening in Hmong Americans: the influence of health care accessibility, culture, and cancer literacy. *J. Community Health*. Jun 2010;35(3):302-314.
5. Jacobs EA, Karavolos K, Rathouz PJ, Ferris TG, Powell LH. Limited English proficiency and breast and cervical cancer screening in a multiethnic population. *Am. J. Public Health*. Aug 2005;95(8):1410-1416.
6. Institute of Medicine. *Hepatitis and Liver Cancer: A National Strategy for Prevention and Control of Hepatitis B and C*: The National Academies Press; 2010.

Table 1: Population description by serology result

	N(%) HBsAg+ N=61	N (%) anti- HBs+/HBsAg- N=492
Age (years)		
18-29	9/98 (8.4)	72/98 (73.4)
30-39	18/115 (13.5)	58/115 (50.4)
40-49	10/177 (5.4)	87/176 (49.4)
50-59	16/207 (7.2)	99/207 (47.8)
60-69	6/173 (3.4)	106/173 (61.3)
≥ 70	1/105 (0.9)	62/105 (59.1)
	$p_{\text{trend}} = 0.0004$	$p_{\text{trend}}=0.54$
Sex		
Male	32/372 (8.6)	199/339 (58.7)
Female	28/571 (4.9)	292/543 (53.8)
	$p_{\text{Exact}}=0.03$	$p_{\text{Exact}}=0.16$
Race		
API	51/792 (6.4)	428/741 (57.8)
Other	10/155 (6.5)	64/144 (44.4)
	$P_{\text{Exact}}=1.00$	$p_{\text{Exact}}=0.004$
Place of birth		
United States	0/70 (0.0)	442/792 (55.8)
Foreign Born	60/852 (7.0)	32/69 (46.4)
	$p_{\text{Exact}}=0.01$	$p_{\text{Exact}}=0.16$
Primary language		
English	4/154 (2.6)	64/149 (43.0)
Other	56/780 (7.2)	417/724 (57.6)
	$p_{\text{Exact}}=0.03$	$p_{\text{Exact}}=0.001$
Reported HBV immunization		
Yes	8/177 (4.5)	113/169 (66.9)
No/Not answered	53/770 (6.9)	379/716 (52.9)
	$p_{\text{Exact}}=0.30$	$p_{\text{Exact}}=0.001$

* Totals differ due to missing data

18. Extent of Clinical Activities Initiated and Completed. Items 18(A) and 18(B) should be completed for all research projects. If the project was restricted to secondary analysis of clinical data or data analysis of clinical research, then responses to 18(A) and 18(B) should be “No.”

18(A) Did you initiate a study that involved the testing of treatment, prevention or diagnostic procedures on human subjects?

_____ Yes
___x___ No

18(B) Did you complete a study that involved the testing of treatment, prevention or diagnostic procedures on human subjects?

_____ Yes
___x___ No

If “Yes” to either 18(A) or 18(B), items 18(C) – (F) must also be completed. (Do NOT complete 18(C-F) if 18(A) and 18(B) are both “No.”)

18(C) How many hospital and health care professionals were involved in the research project?

_____ Number of hospital and health care professionals involved in the research project

18(D) How many subjects were included in the study compared to targeted goals?

_____ Number of subjects originally targeted to be included in the study
_____ Number of subjects enrolled in the study

Note: Studies that fall dramatically short on recruitment are encouraged to provide the details of their recruitment efforts in Item 17, Progress in Achieving Research Goals, Objectives and Aims. For example, the number of eligible subjects approached, the number that refused to participate and the reasons for refusal. Without this information it is difficult to discern whether eligibility criteria were too restrictive or the study simply did not appeal to subjects.

18(E) How many subjects were enrolled in the study by gender, ethnicity and race?

Gender:

_____ Males
_____ Females
_____ Unknown

Ethnicity:

_____ Latinos or Hispanics
_____ Not Latinos or Hispanics
_____ Unknown

Race:

- American Indian or Alaska Native
 Asian
 Blacks or African American
 Native Hawaiian or Other Pacific Islander
 White
 Other, specify: _____
 Unknown

18(F) Where was the research study conducted? (List the county where the research study was conducted. If the treatment, prevention and diagnostic tests were offered in more than one county, list all of the counties where the research study was conducted.)

19. Human Embryonic Stem Cell Research. Item 19(A) should be completed for all research projects. If the research project involved human embryonic stem cells, items 19(B) and 19(C) must also be completed.

19(A) Did this project involve, in any capacity, human embryonic stem cells?

- Yes
 No

19(B) Were these stem cell lines NIH-approved lines that were derived outside of Pennsylvania?

- Yes
 No

19(C) Please describe how this project involved human embryonic stem cells:

20. Articles Submitted to Peer-Reviewed Publications.

20(A) Identify all publications that resulted from the research performed during the funding period and that have been submitted to peer-reviewed publications. Do not list journal abstracts or presentations at professional meetings; abstract and meeting presentations should be listed at the end of item 17. **Include only those publications that acknowledge the Pennsylvania Department of Health as a funding source** (as required in the grant agreement). List the title of the journal article, the authors, the name of the peer-reviewed publication, the month and year when it was submitted, and the status of publication (submitted for publication, accepted for publication or published.). Submit an electronic copy of each publication or paper submitted for publication, listed in the table, in a PDF version 5.0.5 (or greater) format, 1,200 dpi. Filenames for each publication should include the number of the research project, the last name of the PI, and an abbreviated title of the publication. For example, if you submit two publications for Smith (PI for Project 01), one

publication for Zhang (PI for Project 03), and one publication for Bates (PI for Project 04), the filenames would be:

- Project 01 – Smith – Three cases of isolated
- Project 01 – Smith – Investigation of NEB1 deletions
- Project 03 – Zhang – Molecular profiling of aromatase
- Project 04 – Bates – Neonatal intensive care

If the publication is not available electronically, provide 5 paper copies of the publication.

Note: The grant agreement requires that recipients acknowledge the Pennsylvania Department of Health funding in all publications. Please ensure that all publications listed acknowledge the Department of Health funding. If a publication does not acknowledge the funding from the Commonwealth, do not list the publication.

Title of Journal Article:	Authors:	Name of Peer-reviewed Publication:	Month and Year Submitted:	Publication Status (check appropriate box below):
1.None				<input type="checkbox"/> Submitted <input type="checkbox"/> Accepted <input type="checkbox"/> Published

20(B) Based on this project, are you planning to submit articles to peer-reviewed publications in the future?

Yes ___x___ No _____

If yes, please describe your plans:

We are in the process of submitting a manuscript to the American Journal of Public Health, to be submitted as a “Brief Report.”

21. Changes in Outcome, Impact and Effectiveness Attributable to the Research Project.

Describe the outcome, impact, and effectiveness of the research project by summarizing its impact on the incidence of disease, death from disease, stage of disease at time of diagnosis, or other relevant measures of outcome, impact or effectiveness of the research project. If there were no changes, insert “None”; do not use “Not applicable.” Responses must be single-spaced below, and no smaller than 12-point type. DO NOT DELETE THESE INSTRUCTIONS. There is no limit to the length of your response.

The results from this study add important disease-related data to the body of hepatitis B knowledge. It is anticipated that these results will play an important role in the development of additional community-based educational interventions and research projects that will ultimately help to eliminate hepatitis B-related incidence, prevalence and outcomes-related disparities.

22. Major Discoveries, New Drugs, and New Approaches for Prevention Diagnosis and Treatment. Describe major discoveries, new drugs, and new approaches for prevention, diagnosis and treatment that are attributable to the completed research project. If there were no major discoveries, drugs or approaches, insert “None”; do not use “Not applicable.” Responses must be single-spaced below, and no smaller than 12-point type. **DO NOT DELETE THESE INSTRUCTIONS.** There is no limit to the length of your response.

None

23. Inventions, Patents and Commercial Development Opportunities.

23(A) Were any inventions, which may be patentable or otherwise protectable under Title 35 of the United States Code, conceived or first actually reduced to practice in the performance of work under this health research grant? Yes _____ No x

If “Yes” to 23(A), complete items a – g below for each invention. (Do NOT complete items a - g if 23(A) is “No.”)

- a. Title of Invention:
- b. Name of Inventor(s):
- c. Technical Description of Invention (describe nature, purpose, operation and physical, chemical, biological or electrical characteristics of the invention):
- d. Was a patent filed for the invention conceived or first actually reduced to practice in the performance of work under this health research grant?
Yes _____ No _____

If yes, indicate date patent was filed:

- e. Was a patent issued for the invention conceived or first actually reduced to practice in the performance of work under this health research grant?
Yes _____ No _____
If yes, indicate number of patent, title and date issued:
Patent number:
Title of patent:
Date issued:

- f. Were any licenses granted for the patent obtained as a result of work performed under this health research grant? Yes _____ No _____

If yes, how many licenses were granted? _____

- g. Were any commercial development activities taken to develop the invention into a commercial product or service for manufacture or sale? Yes___ No___

If yes, describe the commercial development activities:

23(B) Based on the results of this project, are you planning to file for any licenses or patents, or undertake any commercial development opportunities in the future?

Yes_____ No___x_____

If yes, please describe your plans:

24. Key Investigator Qualifications. Briefly describe the education, research interests and experience and professional commitments of the Principal Investigator and all other key investigators. In place of narrative you may insert the NIH biosketch form here; however, please limit each biosketch to 1-2 pages. *For Nonformula grants only – include information for only those key investigators whose biosketches were not included in the original grant application.*

BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors.
Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME Chari Cohen <hr/> eRA COMMONS USER NAME (credential, e.g., agency login) CHARICOHEN	POSITION TITLE Associate Director of Public Health		
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	MM/YY	FIELD OF STUDY
Lafayette College	BS	1996	Biology
Temple University	MPH	2001	Community Health Ed.
Drexel University	DrPH	Expected 2014	Comm. Health & Prev.

A. Personal Statement

I serve as the Director of Public Health for the Hepatitis B Foundation (HBF), in Doylestown, PA. For the past 13 years, I have worked with the HBF public health team to plan, implement and evaluate community programs and research projects focusing on hepatitis B and liver cancer. Currently, my research focuses on reducing HBV and liver cancer health disparities, and developing models for improved health care access and management for chronic HBV infection, including the early detection and prevention of liver cancer. I direct *Hep B Free Philadelphia*, a campaign to increase testing and vaccination to fight hepatitis B and liver cancer. I am a co-

founder and executive member of Hep B United national coalition and official partner of the Centers for Disease Control and Prevention. I am also chair of CHIPO, a national coalition to eliminate HBV in African immigrant communities. I serve as Caucus Councilor on the Executive Committee of the Asian Pacific Islander Caucus of the American Public Health Association. Previously, I was Vice-Chair of the *National Task Force on Hepatitis B: Focus on Asians and Pacific Islander Americans* from 2005-2012. I mentor organizations around the U.S. to help them become HBV advocates and learn how to implement HBV-related projects using best practices. I received my MPH in Community Health Education from Temple University in 2001 and am a doctoral candidate at Drexel University School of Public Health.

B. Positions and Honors

1996-1997	Research Intern: National Cancer Institute, Pediatric Branch
1997-1998	Teacher: Curtis High School, Department of Nursing
1999-2000	Assistant Project Coordinator: Temple U. Dept. of Health Studies, <i>Health Promotion & Wellness Among Women with Physical Disabilities</i> , an NIH research project
1999-2001	Teaching Assistant: Temple U. Dept. of Health Studies
2001	Project Coordinator: Women's Health and Environmental Network
2001-2007	Program Coordinator: Hepatitis B Foundation
2007-2009	Senior Research Associate: Hepatitis B Foundation
2006-2008	Adjunct Faculty: Temple University, Department of Health Studies
2009-2012	Associate Director of Public Health: Hepatitis B Foundation
2012-present	Director of Public Health: Hepatitis B Foundation
2012	Awarded Bucks County "40 Under 40"

Memberships & Honors

2007-Present	Member, Office of Minority Health, Expert Task Force on Hepatitis B (Advisory & Planning Committee)
2012-Present	Caucus Councilor, Asian Pacific Islander Caucus of the APHA
2001- 2012	Vice-Chair/Grant Writer, <i>National Task Force on Hepatitis B: Focus on Asians and Pacific Islanders</i>
2000-2001	Temple University Teaching Assistant Scholar
1994	Gorsuch Memorial Scholar, Lafayette College
1992	Edward R. Mann Scholar, IBEW Electrical Union, NYC

C. Peer-reviewed publications or manuscripts in press (in chronological order)

- Cohen C, Caballero J, Martin M, Weerasinghe I, Ninde M, Block J. (2013). Eradication of Hepatitis B: A Nationwide Community Coalition Approach to Improving Vaccination, Screening, and Linkage to Care. *Journal of Community Health*, Early Online, DOI 10.1007/s10900-013-9699-4.
- Evans AA, London WT, Gish RG, Cohen C, Block WT. (2012). Chronic HBV Infection Outside Treatment Guidelines: Is Treatment Needed? *Antiviral Therapy*, Early Online, DOI 10.1007/s10900-013-9699-4.

- Apuzzio J, Block JM, Cullison S, Cohen C, Leong SL, London WT, McHugh JA, Neubauer RL, Perrillo R, Squires R, Tarrant D, McMahon BJ. (2012). Chronic Hepatitis B in Pregnancy: A Workshop Consensus Statement on Screening, Evaluation, and Management, Part 1. *The Female Patient*;37(4):22-27.
- Apuzzio J, Block JM, Cullison S, Cohen C, Leong SL, London WT, McHugh JA, Neubauer RL, Perrillo R, Squires R, Tarrant D, McMahon BJ. (2012). Chronic Hepatitis B in Pregnancy: A Workshop Consensus Statement on Screening, Evaluation, and Management, Part 2. *TheFemalePatient*;37(5):30-34.
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EDUCATION

University of Chicago, Chicago, IL	A.B. (Biological Science)	1981
Harvard School of Public Health, Boston, MA	Sc.D. (Epidemiology)	1991
Thesis: <i>The Seroepidemiology of Hepatitis C:</i>		

CURRENT APPOINTMENTS

Assistant Professor of Epidemiology and Biostatistics, Drexel School of Public Health, Philadelphia, PA	2006 - present
Director, Public Health Research, Hepatitis B Foundation, Doylestown, PA	2007 - present

PREVIOUS APPOINTMENTS

Projects Assistant, Illinois Cancer Council, Chicago, IL	1981-1982
Project Coordinator, Logan Gastrointestinal Clinical Research Center, University of Chicago Medical Center, Chicago, IL	1982-1986
Research Assistant, General Pediatric Research Unit, Massachusetts General Hospital, Boston, MA	1987-1989
Statistical Consultant, Quality of Care Measurement, Harvard Community Health Plan, Brookline, MA	1989-1991

Teaching Consultant, Harvard School of Public Health	1989-1991
Instructor, Harvard Extension School, Cambridge, MA	1991
Course: <i>Introduction to Epidemiology</i> (NSCI-E161)	
Postdoctoral Associate, Fox Chase Cancer Center, Philadelphia, PA	1991-1992
Instructor, La Salle University Graduate Nursing Program, Philadelphia, PA	1993
Course: <i>Introduction to Epidemiology</i>	
Assistant Member, Fox Chase Cancer Center, Philadelphia, PA	1993-1998
Associate Member, Fox Chase Cancer Center, Philadelphia, PA	1998-2006
Adjunct Associate Member, Fox Chase Cancer Center, Philadelphia, PA	2006 – 2008

MEMBERSHIP IN PROFESSIONAL SOCIETIES

American Society of Preventive Oncology
 American Association for Cancer Research
 American Public Health Association

GRANT SUPPORT (current)

Liver Cancer and the Role of Protein Hyper-Fucosylation (NIH R01) 5/09-4/14
 (PI: Timothy Block, Drexel School of Medicine)
 Role: Co-Investigator

Urine Biomarker Discovery for the Early Detection of Liver Cancer (NIH R01)
 PI: Ying-Hsiu Su, PhD, Drexel College of Medicine
 Role: Co-Investigator 12/07-11/10

PUBLICATIONS (selections from 2007 to present)

Welzel TM, Katki HA, Sakoda LC, Evans AA, London WT, Chen G, O'Broin S, Shen FM, Lin WY, McGlynn KA. Blood folate levels and risk of liver damage and hepatocellular carcinoma in a prospective high-risk cohort. *Cancer Epidemiology, Biomarkers, and Prevention* 2007 16:1279-82.

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Jain S, Chang TT, Hamilton JP, Lin SY, Lin YJ, Evans AA, Selaru FM, Lin PW, Chen SH, Block TM, Hu CT, Song W, Meltzer SJ, Su YH. Methylation of the CpG Sites Only on the Sense Strand of the APC Gene Is Specific for Hepatocellular Carcinoma. *PLoS ONE*. 2011;6(11):e26799. Epub 2011 Nov 2.

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Ambroggio L, Taylor JA, Tabb LP, Newschaffer CJ, Evans AA, Shah SS. Comparative effectiveness of beta-lactam monotherapy and beta-lactam-macrolide combination therapy in children hospitalized with community-acquired pneumonia. In review.

Evans AA, London WT, Gish RG, Cohen C, Block TM. Chronic HBV infection outside treatment guidelines: Is treatment needed? In review.