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Evaluation of a Health Professionals' Training Program to Conduct Research in New York City's Asian American Community

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Abstract

Background—Because health disparities among Asian Americans are understudied, a partnership program between the Charles B Wang Community Health Center and the Center for the Study of Asian American Health was created to increase awareness and interest in Asian American research.

Purpose—To evaluate the process, outcome, and impact of a health professionals' research training program.

Methods—Mixed research methods were employed to collect data from online surveys administered to mentors and trainees of the program.

Results—Although many trainees did not continue to pursue Asian American health disparities research, results indicate that the program has positive impacts on trainees in their preparedness to conduct CBPR, work within the Asian American community, and network with public health professionals and researchers.

Discussion—This evaluation adds to the current literature of research training programs but more research on Asian American health disparities is needed.

Translation to Health Education Practice—Although the program has helped raise awareness in Asian American health disparities research, more Asian American specific research training programs are needed to stimulate a true generation of researchers.

Introduction

Health Disparities among Asian Americans are largely understudied in public health research (Ghosh 2003). Asian Americans are not well represented in community-based participatory research of health disparities. For instance, only 0.01% of all published researched in the MEDLINE database from 1966 – 2000 focused on Asian American health (Ghosh 2003). The paucity of Asian American specific research studies shows the significant need for cultivating and promoting all health professionals to conduct new research projects that address health disparities in Asian American populations. Moreover, there is a clear need for minority workforce development among Asian Americans in the public health field, such as community health providers and/or conducting research with community members on issues relevant to Asian American health. Among Asian Americans who do pursue a career in public health, only a fraction focuses on Asian American health disparities.

There are few studies on research training programs within the realm of Asian American health disparities. The existing literature on training programs tends to emphasize broad components such as mentorship and an examination of the community and academic partnership (Norris 2007). Moreover, the current available literature pertains mostly to clinical practitioners such as nurses and doctors in residency rather than researchers (Furin 2006, Van Eps 2006, Deatrick 2009, Groeppinger 2009, Sullivan 2009). Few articles employed quantitative evaluation methods, as most of these evaluations were limited to a low number of participants (DeHaven 2005). Moreover, although ASIAN AMERICAN health disparities research training programs are increasing, more literature on the topic is needed (Bastani 2005, Yancey 2006).

The Health Disparities Research Training Program (HDRTP) sought to bridge the gap among young social science scientists, Asian Pacific Islander community organizations, and medical and public health partners. The program's mission is to increase public health research on health disparities and chronic diseases within the Asian American community. The purpose of this article is to present the evaluation findings of the HDRTP. Trainees were evaluated on self-reported gains in interest and awareness on Asian American issues, professional development, and research skills after completing the training. The program has created continual interest and active involvement on Asian American health research. Additionally, evaluation data was collected on past participant's involvement in Asian American health research post-training.

Program Description

In 2004, the Charles B Wang Community Health Center (CBWCHC) and the Center for the Study of Asian American Health (CSAAH) at New York University (NYU) launched the HDRTP as a joint initiative to increase interests in Asian American health disparities

research. CBWCHC is a Federally Qualified Health Center (FQHC) that provides affordable, comprehensive, and culturally relevant primary care and enabling services to medically underserved Asian Americans. Established in 1971, the health center serves patients across all five boroughs with locations in Manhattan and Queens. CSAAH is a National Research Center of Excellence, funded by National Institutes of Health (NIH) and National Center for Minority Health and Health Disparities (NCMHD). Established in 2003, CSAAH is based at the New York University Institute for Community Health and Research. It is among the first research centers of its kind in the United States focused on research and evaluation on Asian Pacific Islander health with an ultimate goal to eliminate health disparities among Asian Pacific Islander populations.

As a core area of CSAAH, the HDRTP is designed to address training and research gaps in Asian American health disparities. It offers a yearlong research training opportunity to qualified students and health professionals, in order to (1) increase competence and commitment among trainees to work in community-based participatory research on Asian American health disparities, (2) increase the number of potential investigators, and (3) increase the number of research projects addressing health disparities among Asian American populations. The HDRTP provides a unique opportunity for students and health professionals to develop and implement a community-based research project, as well as to learn to analyze, compile, and disseminate results for academic and policy communities.

The HDRTP seeks to train eight to ten health professionals and/or graduate students each year interested in gaining skills in conducting community-based participatory research with Asian American communities. Trainees engaged in an intensive curriculum, which covers Asian American health disparities, research methods, cultural competency, community access, advocacy, and funding of research endeavors. Community partners and academic experts taught monthly seminars. Past health disparities and chronic disease projects include research on obesity, physical activity, diabetes, hepatitis b, smoking, and diabetes

In addition, all training participants are individually matched with a mentor and he/she should initiate and complete a research project related to Asian American health disparities in consultation with community members, organizational representatives and/or senior researchers. Mentors were recruited to the program based on their expertise and knowledge in some specific areas of public health as well as their past involvement with CBWCHC and CSAAAH. As a result, roughly equal numbers of mentors were from community organizations and academic institutions in the New York City area. Mentors volunteered their services without compensation, and no stipends were provided to trainees. All project placements were located in New York City.

Methods

Study Sample

The evaluation sample consists of all past trainees and mentors, who were available through the HDRTP alumni database. Participants received an invitation to complete an online survey through a third party online survey website. Additional attempts were made to reach participants through personalized invitation emails and follow-up phone calls.

From the programs inception in 2004 to 2011, a total of 40 trainees and 15 mentors participated in the program, among which 38 trainees completed the one-year training program. Hence, the current evaluation is restricted to only those trainees who completed the training.

Design

Data for the evaluation comes from an online survey administered through the survey website, SurveyMonkey, between December 2011 and February 2012. Participants were asked to complete an online evaluation survey dependant on their cohort year. Trainees from the cohort years 2004–2008 were previously surveyed in 2008 for an internal program evaluation. Additional questions were developed for the 2011 evaluation resulting in three different surveys: one mentor survey, one survey containing only new questions for the 2004–2008 cohorts, and one longer survey which contained both the 2004–2008 questions and the new additional 2011 questions.

The survey instrument utilized a variety of question types including yes or no, multiple choice (select one/select as many as applies), ranking, and open-ended responses. There were 26 survey questions for the 2004–2008 cohorts, 38 questions for the 2008–2011 cohorts, and 20 questions for mentors.

Measures

Our study was divided into a three-part evaluation. We sought to analyze both the *process* and the *outcome* of our program. The process evaluation measures include demographics of participants and mentors, and questions on the implementation, and format and structure of the program. The outcome evaluation measures included: basic research skills and knowledge, Asian American health knowledge, long term professional development, and mentorship. An additional component of our evaluation included the impact experienced by trainees. Impact measures included current occupation and level of current involvement in Asian American health disparities and CBPR.

Analysis

We employed mixed research methods. For qualitative analysis, a standard Likert scale was used with many questions with the scale representing 1=poor, 2=fair, 3=good, 3=very good, and 5=excellent. Some questions were qualitative, open-ended. A descriptive analysis was used to analyze these responses. Quantitative results were analyzed using Microsoft Excel. Qualitative responses were organized using content analysis. This study was approved by the New York University School of Medicine Institutional Review Board.

Results

Process evaluation consisted of the program implementation feedback

Demographics—Thirty-three trainees responded to the questionnaire (N=33), a response rate of 86.8%. Table 1 detailed the demographics for the trainees. Most of the trainees were Asians (88%), females (79%), and aged between 25–42 years. Over half (52%) of trainees identified themselves as ethnically Chinese. The majority of trainees currently possess a

Master's degree (n=20). Other trainees possess a Doctorate in Philosophy degree (n=8) or Doctorate in Medicine degree (n=5).

Eleven of the fifteen mentors responded to the electronic survey. The educational background of these mentors consisted of PhD or DrPH (n=6), MD (n=3), and Master's degree (n=2).

Program Implementation—Trainees were chiefly recruited to the program by recommendations from peers, NYU and Columbia school postings, and the CSAAH internet list serves.

Trainees were asked to rate the logistical components of the HDRTP. They awarded the application process as 4.2 (very good), program coordination as 3.9 (very good), and communication with staff as 3.5 (moderately good).

Trainees were polled on whether they experienced the original extended orientation which was three days or if they took part of the shortened one day orientation. In general, trainees were more receptive to the one day orientation and those who identified themselves as having three days suggested that the orientation be shortened.

Program Structure and Format

“I really enjoyed the lectures, meeting other health professionals, and the quality of the staff/guest lectures...I still keep all my notes and refer to them from time to time. The class definitely helped me in doing the research work needed for my dissertation.”

Trainees rated the monthly seminar on two components: relevance and content of topics. Both components received favorable responses with the average score for both components at 4.1 (very good). However, some trainees reported that the seminars were too general or they had been previously exposed to the material and did not gain new knowledge.

Mentors who also served as seminar speakers were polled on their experiences as lecturers. Mentors reported an average experience rating of 3.9 (very good) and the majority reported having adequate information and time to prepare. Both mentors who served as seminar speakers in the past and trainees suggested that instructors should first poll trainees on their knowledge before designing their lecture.

When asked what additional tips and resources trainees most wanted, the overwhelming response was more information on networking, funding, publishing and dissemination.

Outcome evaluation focuses on trainees' program outcomes

Basic Research Skills

“HDRTP provided me with a great opportunity to conduct my own research from the very beginning to end. As a result, I have developed a better understanding of the process and logistics issues that may occur during survey research”

“It [the program] has also renewed my sense of motivation and endurance to overcome obstacles and tackle issues independently.”

Over 83% of trainees said that HDRTP was “very good” or “excellent” in terms of building skills in “understanding challenges of CBPR” and “understanding and addressing health issues.” Trainees reported that the program was less useful in building skills pertaining to understanding the IRB process, developing research instruments, and analyzing qualitative data.

Almost half of all trainees reported some form of dissemination aside from the program’s final presentation: 67% reported presenting their poster at the Asian American Health Conference; 33% presented their projects at conferences such as Yale and John Hopkins; 47% presented at different research sites. In terms of written manuscripts, 13% submitted to a peer-reviewed journal and were published. These manuscripts have been published in the journal entitled *Psychiatric Services*.

Trainees also identified a list of resources needed in order to pursue their interests in future Asian American research projects. Trainees stated (1) immediate access to a study population, (2) access and training in data analysis tools such as SPSS and SAS, (3) qualitative methods and analysis methods, literature review, specific research methods that have been well received in different Asian American communities, (4) funding opportunities, (5) academic training opportunities, (6) linkages to community partners, (7) database of various health statistics of Asian Americans found from previous trainees, and (8) translating research into policy would be most helpful.

Asian American Health Topics

“I have gained exposure to a field of research in which very few are engaged, so this gave me the opportunity to learn content and skills that were not covered in my program of study.”

“HDRTP has definitely enhanced my knowledge of the field in research and it has also opened different doors to the field of Asian American health which I would not have access to if not for the program”

Trainees were asked which Asian American community research interests they are most interested in pursuing. Responses included mental health, various chronic diseases, cancer, health promotion and language access, advocacy, and a comparison of Eastern and Western medical practices.

Mentorship

“The highlight of the program was being connected with an engaging and motivated mentor who helped me understand CBPR.”

Across all cohorts, trainees were equally likely to contact their mentors for help during the program. However communication between trainees and mentors decrease overtime since program participation. Only 38% of trainees from the 2004–2008 cohorts kept in touch with their mentors whereas 64% of trainees from the 2008–2010 cohorts were still in touch. The chief reason for this continual relationship was “research collaboration” followed by

“friendship.” When trainees were asked to rate their overall mentorship, the average rating was 3.9 (very good) with “interest/research compatibility” ranked at 4.2 (very good) and “technical assistance” at 3.5 (moderately good). Trainees requested more frequent and regulated meetings with mentors, to be paired with a mentor that had a current project which the trainees could join, clear expectations, and more direct or guided involvement.

Although half of the mentors responded that they mostly met face to face with trainees, the frequency of each meeting was monthly rather than weekly or bi-weekly. Both trainees and mentors reported that mentors were more involved in the “conceptualization of study proposal” and “data analysis” but less involved in the “data collection,” “IRB preparation,” and “dissemination.” Additionally, most mentors stated that they believed all trainees experiences either “some” or “great amount” of improvement in skills over the course of the program.

Yet given these improvements, trainees nevertheless identified key issues preventing them from project completion. Overwhelmingly, trainees stated their chief complaints were the lack of support in dissemination of their projects, as well as barriers to successful time and project management. Mentors echoed some of these concerns and stated that the chief challenges and barriers preventing trainees from successful project completion were poor time management, competing responsibilities and interest, lack of clear guidelines and expectations, and poor communication between mentors and trainees.

Satisfaction and Likelihood to Recommend—When trainees were asked about their overall satisfaction with the program, the vast majority of all trainees reported the overall program as good or better, with almost half reporting the program as very good or better. Almost all trainees said they would recommend the program to others.

Impact evaluation focuses on the impact of the training program on the trainee’s careers

Professional Impact

“Also, decided to go back to school to become an Oriental Medicine doctor...hope to do more Asian American public research around oriental medicine and CBPR.”

When trainees were asked about their current involvement in research, CBPR, and Asian American issues, more than half of the trainees were no longer involved in these aspects. More than a third of the trainees are still currently involved in research on Asian American issues with 40% are involved with journal submission and publication, 30% are involved in CBPR engagement within the Asian Americans community, 48% are involved in general health disparities research.

At the time of their cohort year, the majority of trainees were master’s students in public health or other programs. Professionally, the majority of trainees are now program managers, non-tenured track professors, clinicians, and public health researchers. More than half of trainees identified their primary professional responsibility as *research &/or evaluation* followed by *health education*. Universities are the primary employers of HDRTTP trainees at 57% followed by government agencies at 13%.

When asked how the program impacted their professional goals, trainees responded with diverse and positive comments. Many cited networking with different organizations, providing a support network, learning to work independently under a time constraint, providing opportunities to conduct CBPR and Asian American research, enhanced knowledge in health disparities research, learning to build community skills, publication experience, and pursuing advance degrees as all positive professional development from the program.

Community Based Participatory Research

“HDRTP has given me a support network. If I have a problem conducting CBPR with any ethnic group, I feel like I have supportive individuals that I may contact for assistance.”

When asked how the program prepared trainees for future Asian American research, CBPR, and work related to health disparities research dissemination, trainees responded favorably, as the vast majority of trainees assessed that their level of preparedness in Asian American research after HDRTP as “somewhat” or “great extent.”

A large majority of trainees assessed that their level of preparedness to conduct CBPR after HDRTP as “somewhat” or “great extent.” Almost all of trainees reported their preparedness to perform job tasks related to health disparities as “somewhat” or “great extent.”

Conclusion

Interpreting the Results

Trainees most appreciated the program in its ability to provide networking opportunities with mentors, speakers, trainees, and program staff. Experience in CBPR, introduction to health disparities, along with the opportunity to disseminate their work were also strengths of the program. Lastly, many trainees felt that the program was able to successfully introduce them to Asian American issues especially those pertaining to health disparities and chronic diseases. Yet while trainees did identify these positive components of the program, there were nevertheless some criticisms, such as lack of manuscript support, limited project time, and lack of trainee funding.

During the course of the evaluation we discovered that many trainees did not pursue further Asian American research after the program. This could be due to multiple reasons. Unfortunately, it may indicate that the program did not directly increase trainee involvement in Asian American health disparities research. Specifically, the program may not currently provide resources needed to encourage and maintain interest in Asian American research. Another possible reason for this lack of research could be the scarcity of Asian American research opportunities outside of the HDRTP. As mentioned during the introduction, there is often inadequate funding for Asian American health research. Trainees may be interested in these pursuits yet unable to find any professional positions within the field or experience lack of funding for their projects.

Limitations

There are several limitations to our study. Trainees from earlier cohort years may not have recalled their experiences as vividly or conversely, may have had more time to reflect on their experiences than more current trainees. Not all trainees or mentors participated in our surveys therefore our results may not reflect the opinions of all trainees or mentors. This may affect the strength of our findings. Additionally, our research design is retrospective and only focuses on trainee's responses after they have completed the program. Lastly, the HDRTP does not represent all needs for conducting Asian American health research. Our program is geared toward recruiting current health professionals interested in Asian American health disparities research. These individuals are both highly educated and self-selective. They do not necessarily represent the views of all professionals working in the health field.

Despite these limitations, this study adds to the literature of health disparities training programs and can begin to inform other organizations and institutions as how to create successful research training programs through an academic and community organization partnership. Moreover, this study serves as guide for other potential health disparities research training programs on Asian Americans or other minority populations.

Lessons Learned

As a result of these suggestions, CBWCHC and CSAAH has significantly altered their program plan for the 2011–2012 cohort. The program now provides more individual support and guidance for trainees through pre-selected projects thus removing one of the most difficult research barriers—a viable population sample and site study. Trainees identify a specific project of interest in both their application and interview process. These projects were developed with current programs in mind. Staff within those programs was invited to become program mentors. Because of the mentor's increased commitment, trainees are able to form a more natural and meaningful relationship in which the mentor is able to give direct advice his or her mentee. Trainees are also provided with an additional mentor who provides research and evaluation support and expertise. Hence all trainees receive two project mentors.

Additionally, we have re-organized our seminars so that their sequence is organic to completing a research project. Trainees are educated early on in the project year so that topics such as literature reviews, methodology, and data analysis can be employed as skills in their own projects. Lastly, we have decreased our number of trainees from seven individuals a year to five. The reduction of trainees ensures that mentors along with program staff will not be overwhelmed with trainee responsibilities.

More broadly, all health disparities research training programs must focus on the key motivations of their trainees and mentors, along with providing sufficient infrastructure, in order to produce successful research projects that inspire young scientist to continue pursuing work within the community that the training program seeks to improve. Key elements that future programs include effective program or study site placement, mentors

who are vested in their trainee's project, garnering funding opportunities for researchers, and providing research dissemination support and guidance.

Recommendations

Continual work within the field of research training is needed. There is still a significant lack in programs aimed at CBPR and health disparities. The majority of current training programs is not focused on training minorities nor are they focused on nonclinical staff. Although this study faced some limitations, the findings are nevertheless substantial and can inform other public health research development programs. At the center of the program are important skills that can be applied to any training program. Focus on mentorship, communication, networking, and education of young researchers, are key goals transferable within many disciplines. Most importantly, this study reveals the influence that training programs may have on a participant's future research interests, academic pursuits, as well as career prospective. It also demonstrated the need for increased funding and interest in Asian American research.

Research training programs need more focus on training rather than simply encouraging research development. Communication, direct involvement, and successful mentorship pairing are necessary to the success of the trainee's project as well as his or her continual interest in research on Asian American health disparities. Furthermore projects should be toward benefiting both the mentor and the trainee rather than focusing solely on the trainee's progress.

Research training program staff should also aim for realistic goals that can be accomplished within the duration of the program. Ambitious plans such as completing an IRB, conducting an intervention, and completing a final manuscript within a year should be tempered with realistic goals and expectations. Program staff should identify projects that are rigorous and meaningful but can be easily completed within a year. A possible solution is to pre-select all trainee projects and mentors rather than expecting trainees to create an original research project and identifying a mentor on their own.

HDRTP is a unique partnership between an academic institution and a community based organization. This program was built to both promote minority workforce development and Asian American health disparities research, with the ultimate mission of increasing Asian American public health research among all health professionals. Further, the program emphasized mentorship, academic and community led seminars, and independent research work to promote culturally and linguistically appropriate projects in which to train young scientists. But ultimately successful research training programs depend on multiple components. Program staff and academic partners along with mentors and seminar speakers must all communicate and work together effectively in order to support a successful trainee.

Although HDRTP has increased awareness in Asian American health disparities and chronic disease research, more Asian American community focused programs must be developed among all health professionals in order to truly increase the health education practice. To stimulate a viable generation of researchers focused on Asian American health disparities and chronic diseases, minority workforce development and training programs are not

enough. Rather, increased awareness and education of Asian American health issues must be impressed upon all health professions.

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Table 1

Demographic characteristics of study participants (n=44)

Characteristics	Trainees		Mentors	
	n	%	n	%
Total polled	38		15	
Total responded	33	86.8%	11	73.3%
Current Age (average)	33			
Gender				
Female	26	78.8%		
Male	7	21.2%		
Race				
Asian	29	87.9%		
African American	2	6.1%		
White	1	3.0%		
Native American	1	3.0%		
Ethnicity				
Chinese	17	51.5%		
South Asian	7	21.2%		
Korean	5	15.1%		
Filipino	3	9.1%		
Hispanic	1	3.0%		
Vietnamese	1	3.0%		
Education				
Masters	20	60.6%	6	54.5%
PhD	8	24.2%	3	27.3%
MD	5	15.2%	2	18.2%

Table 2

Process Evaluation results study participants (n=33)

Characteristics	Trainees	
	n	%
Tips & Resources Requested (n=33)		
Developing networks or opportunities for collaboration	25	83.3%
Location of funding opportunities	21	70.0%
Tips on publishing & disseminating findings	18	60.0%
Skill building (% answering "good" or higher) (n=31)		
Understanding & addressing health issues	31	100%
Understanding challenges of CBPR	30	96.8%
Presenting research results	29	93.5%
Developing research protocol	29	93.5%
Organizing & analyzing quantitative data	28	90.3%
Organizing & analyzing qualitative data	28	90.3%
Understanding IRB process	27	87.1%
Developing research instruments	26	83.9%
Dissemination (n=13)		
Asian American Health Conference poster presentation	10	66.7%
Other	7	46.7%
Presentation at another conference*	5	33.3%
Manuscript submitted to a peer-reviewed journal	2	13.3%
Published in a peer-reviewed journal*	2	13.3%
CBPR preparedness (n=30)		
Great Extent	3	10.0%
Somewhat	19	63.3%
Neutral	8	26.7%
Negative	0	0%
Preparedness in API research (n=30)		
Great Extent	9	30.0%
Somewhat	17	56.7%
Neutral	3	10.0%
Negative	1	3.3%
Preparedness to Perform Job Tasks related to Health Disparities (n=30)		
Great Extent	6	20.0%
Somewhat	18	60.0%
Neutral	6	20.0%
Negative	0	0%
Likelihood of Future Research (% answering "good" or higher) (n=30)		
General health disparities research	30	100%

Characteristics	Trainees	
	n	%
Research on API issues	28	93.3%
Journal submission & publication	28	93.3%
Engagement in CBPR among API	28	93.3%
Current Involvements (n=30)		
General health disparities research	14	48.3%
Journal submission & publication	12	40.0%
Research on API issues	11	36.7%
Engagement in CBPR among API	10	30.0%
Current Primary Position (n=30)		
Other	12	40.0%
Program Coordinator/Manger	7	23.3%
Public Health Research	6	20.0%
Research Coordinator/Manger	3	10.0%
Counselor	1	3.3%
Physician	1	3.3%
Professional Responsibilities (n=30)		
Research &/or Evaluation	18	60.0%
Health education	11	36.7%
Project Management	9	30.0%
Students	9	30.0%
Direct clinical care	7	23.3%
Advocacy	5	16.7%
Current Institutions of Employment (n=30)		
Universities	17	56.7%
Government Agencies	4	13.3%
Community Organization	3	10.0%
Community Health Centers	3	10.0%
Research Institutions	2	6.7%
Hospitals	1	3.3%
Overall Preparedness (n=33)	31	93.9%
Overall Program Rankings (n=31)		
Excellent	4	12.9%
Very good	11	35.5%
Good	13	41.9%
Fair	3	9.7%
Poor	0	0%
Likelihood to Recommend (n=29)		
Yes	27	93.1%

Characteristics	Trainees	
	n	%
No	2	6.9%
Mentor's perception of trainee increase in skills & knowledge (n=9)		
Great Improvement	4	44.4%
Some Improvement	5	55.6%
Satisfaction (n=30)		
Yes	22	73.3%
No	4	13.3%
Unsure	4	13.3%

	Pre-HDRTP (n=33)		Post-HDRTP (n=30)	
	#	%	#	%
Current Primary Position (n=30)				
Physician	1	3.0%	1	3.3%
Program Coordinator/Manger	6	18.1%	7	23.3%
Counselor	2	6.1%	1	3.3%
Public Health Research	2	6.1%	6	20.0%
Research Coordinator/Manger	3	9.1%	3	10.0%
Community Health Educator	3	9.1%	0	0%
Other	16	48.5%	12	40.0%
Professional Responsibilities (n=30)				
Direct clinical care	6	15.8%	7	23.3%
Health education	4	10.5%	11	36.7%
Advocacy	0	0%	5	16.7%
Project Management	5	13.2%	9	30.0%
Research &/or Evaluation	7	18.4%	18	60.0%
Students	16	42.1%	9	30.0%

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3) John Hopkins School of Public Health 4th Annual Conference for Student Research on Addictions, Infectious Disease, and Public Health. 2011 American Public Health Meeting. Yale Global Health Conference, United for Sight.

Table 3

Outcome Evaluation results study participants (n=33)

Characteristics	Trainees	
	n	%
Recruitment (n=33)		
Word of mouth	11	33.3%
Other	8	24.2%
Email	7	21.2%
School	4	12.1%
Flyer	3	9.1%
Program Logistics (average out of 5)		
Application process	4.2	
Program coordination	3.9	
Communication with staff	3.5	
Orientation (n=30)		
Three days	17	56.7%
One day	13	43.3%
Monthly Seminars (average out of 5)		
Relevance	4.1	
Content of topics	4.1	
Learning Formats(n=31)		
Group discussion/activities	21	67.7%
Directed research	21	67.7%
Lecture-style presentations	13	41.9%
Mentor & Trainee Interaction	2004–2008 trainees	2008–2010 trainees
Likely to contact mentor for help during project (n=18)	6 (33.3%)	5 (41.7%)
Still in touch with mentor (n=16)	6 (37.5%)	7 (63.6%)
Still in touch with trainees (n=19)	4 (21.1%)	10 (83.3%)
Mentorship		
Interest/Research Compatibility	4.2	
Access to mentor	4.0	
Overall Experience	3.9	
Quality of feedback	3.8	
Technical Assistance	3.5	

	2004–2008 trainees		2008–2010 trainees	
	#	%	#	%
Mentor & Trainee Interaction				
Likely to contact mentor for help during project (n=18)	6	33.3%	5	41.7%
Still in touch with mentor (n=16)	6	37.5%	7	63.6%

	2004–2008 trainees		2008–2010 trainees	
	#	%	#	%
Still in touch with trainees (n=19)	4	21.1%	10	83.3%