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Evidence-Based Public Health (EBPH) Informatics Training for Public Health Practitioners in New Mexico. Final Report.

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<u>**Partners in Public Health Information Outreach Award Contract:**</u>

**Evidence-Based Public Health (EBPH) Informatics Training
for Public Health Practitioners in New Mexico**

FINAL REPORT
May 10, 2006

**The University of New Mexico
Health Sciences Library and Informatics Center
Albuquerque, New Mexico**

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EXECUTIVE SUMMARY

This combined training and research award contract project accomplished the following outcomes during the April 2005 - May 2006 period which link directly to the original proposal goals:

- ❖ 87 New Mexico Department of Health professional-level employees, many of them from remote areas of the state, participated in continuing education *training* on Evidence-Based Public Health (EBPH).

- ❖ The Principal Investigator and Investigator Richard Carr collected 237 naturally occurring questions from 74 participants in the *content analysis* research arm of the project.

- ❖ The Principal Investigator, Investigator Richard Carr, and Department of Health Chief Medical Officer Ronald E. Voorhees, M.D., M.P.H. determined through the *randomized controlled trial* research arm of the project involving 60 training participants that EBPH Informatics training prompted trainees to articulate approximately twice as many practice-related questions compared to an identical yet still untrained control group.

- ❖ Advanced the goals of EBPH by *training* 87 public health practitioners on the question formulation, problem quantification, searching, and critical appraisal aspects of the EBPH process.

- ❖ Research conducted and experiences generated through this project led to seven (7) professional *communications* in the forms of three (3) contributed papers and three (3) posters presented at professional meetings, and one (1) manuscript submitted for publication in a peer reviewed journal.

The following report summarizes the administrative, resource development, training, and evaluation aspects of this project. It also summarizes the translational research findings.

Administrative/Planning Activities: Describe administrative and planning dimensions of the award contract accomplished during the award contract period.

Regional Director Support
A longstanding collegial relationship between the Principal Investigator and the Department of Health's Chief Medical Officer Ronald E. Voorhees, M.D., M.P.H. led to a smooth implementation of this combined training and research project. Dr. Voorhees oriented the Department of Health's regional directors to the project and secured their support, thereby making the Principal Investigator's communications with these colleagues very productive. The full support of the regional directors or their designees proved to be essential to the success of this project. The regional directors or their designees scheduled classrooms and centralized communications for the training sessions within their offices. These key administrators also publicized the training sessions and collected all training participants' signed human subjects consent forms required by the Principal Investigator's institutional review board. These actions led to the initial enrollment for training of 103 Department of Health professionals in this project.

Project Timeline
The original proposal included a detailed project timeline. Once the award had been funded, the Principal Investigator revised the project timeline to reflect the comments and questions posed by the expert reviewers prior to approval. This timeline had to be revised again slightly following the June 8, 2005 focus groups. Michelle Malizia at NN/LM SCR complimented the PI on submitting the most coherent and detailed timeline that she had ever seen for this kind of project. Although the timeline was delayed by about two months due to the approved extra trainings for February and March 2006, the timeline proved to be a helpful project management tool for staying on schedule in this complex training and research project.

Focus Groups
The two focus groups on June 8, 2005 consisting of a public health faculty group and a student group with relevant public health work experience resulted in some major changes in this project. Some key changes included:
- Substituting a generic "Certificate of Completion" instead of using continuing education credits issued by medical, nursing, and allied health professional associations;
- Changes in the labels used for Evidence-Based Public Health question types to foster greater recognition by project participants;
- Providing $20 gift cards as an incentive to participate fully in this project

The Principal Investigator submitted the full three-page report from these two focus groups to Michelle Malizia on July 8, 2005. Ms. Malizia reviewed these findings with NN/LM South Central Region's Outreach Meeting participants during late July 2005.

Professional Communications
This combined training and research project generated the following seven (7) professional communications:

Eldredge JD, Carr RD. Public health informatics training in a rural state: an interim case study. Journal of the Medical Library Association. Submitted upon invitation by Dr. Angela Ruffin for a special issue, March 10, 2006.

Eldredge JD, Carr RD. Evidence-Based Public Health Informatics Training for Public Health Practitioners in New Mexico: A Randomized Controlled Trial. Contributed Paper. Medical Library Association Annual Meeting. Phoenix, AZ. May 22, 2006. Accepted for presentation.

Carr RD. Eldredge JD. A Content Analysis of Questions Generated by Public Health Practitioners. Poster. Medical Library Association Annual Meeting. Phoenix, AZ. May 21, 2006. Accepted for poster presentation.

Eldredge JD, Carr RD, Voorhees RE. Evidence-Based Public Health Informatics Training for New Mexico Public Health Practitioners; A Randomized Controlled Trial. Contributed Paper. New Mexico Public Health Association Annual Meeting. Albuquerque, NM. April 5, 2006.

Carr RD. Eldredge JD. A Content Analysis of Questions Generated by Public Health Practitioners in New Mexico: Preliminary Results. Poster. New Mexico Public Health Association Annual Meeting. Albuquerque, NM. April 5-7, 2006.

Carr R, Eldredge JD. A Content Analysis of Questions Generated by Public Health Practitioners in New Mexico: Preliminary Results. Poster. Medical Library Association/South Central Chapter 2005 Annual Meeting. Little Rock, AR. October 24, 2005.

Eldredge J, Carr R. Evidence-Based Public Health Informatics Training for Public Health Practitioners. Contributed Paper. Third International Evidence-Based Librarianship (EBL) Conference. Brisbane, Queensland, Australia. October 22, 2005.

Research Protocol
The Principal Investigator secured the approval of the institutional review board at the University of New Mexico Health Sciences Center for working with human subjects on this project on July 8, 2005. The Principal Investigator applied to close the human subject aspects of this project on April 17, 2006. The following text summarizes the research protocol utilized during this project:

- Recruitment for this project consisted of identifying eligible Department of Health professional-level employees and their correct new email addresses. Next, an email invitation from Department of Health Chief Medical Officer Ron Voorhees, M.D., with a follow-up email invitation by the regional director or the regional director's designee was sent to each eligible professional-level employee. Employees had to submit both a registration form and a signed consent form from the UNM Human Research Review Committee ("IRB") by the announced deadline to be eligible.
- Once the pool had been established, the PI randomized all participants into either the first group of trainees (Intervention Group) or the second group of trainees (Control Group).
- The Intervention group was scheduled for training at the end of the second week of a six week-long study period for each Department of Health region. The

Control group was scheduled to be trained exactly two weeks later than the Intervention Group for each region.
- The PI officially notified each participant that they had been enrolled into one of the two sessions on the designated date. The study period in each Department of Health region lasted for six weeks.
- Three times a week the PI emailed the Intervention and Control groups "Brief Survey Reminders" with the survey attached and embedded into the body of the email throughout the six-week study period. Participants would complete and return surveys as questions occurred to them during this six-week study period.
- All surveys collected, regardless of whether the respondent attended the training session, were compiled for a content analysis using the University of Massachusetts' Soutter Library public health subject classification system.

Product/Resource Development Activities: List any products or resources developed during the quarter.

This project produced a 22 page training handbook as its major product. This handbook provided an overview of Evidence-Based Public Health, statistical and non-statistical public health websites, detailed instructions for PubMed searching on public health subjects, and a list of open-access public health journals. This handbook evolved over the course of this project, with revisions occurring after the pairs of training sessions at each regional site. This handbook will be stored in DSpace at UNM for easy open access.

This project also involved two focus groups. The three-page report summarizing the findings of these focus groups also will be placed in DSpace at UNM. Michelle Malizia shared this report at the NN/LM South Central Region's Outreach Meeting participants during late July 2005.

EBPH Informatics Training: List all training sessions conducted:

Table One below summarizes the EBPH Informatics training during this quarter.

Table One. Training Session Overview

Date	Region (s)	Location	Number of Participants*
August 12, 2005	2	Santa Fe	6
August 26, 2005	2	Santa Fe	4
September 2, 2005	1 & 3	Albuquerque	9
September 16, 2005	1 & 3	Albuquerque	8
September 23, 2005	4	Roswell	7
October 7, 2005	4	Roswell	9
November 4, 2005	5	Las Cruces	11
November 18, 2005	5	Las Cruces	11
February 3, 2006	4	Roswell	7

February 17, 2006	4	Roswell	6
March 10, 2006	2	Santa Fe**	9
			Total = 87

* Not all trainees were enrolled formally in the research component of the project due to late registrations or drop-ins. As long as space was available, professionals wishing to attend spontaneously were allowed to attend the training sessions since there seemed to be no reason why their presence would interfere with the research arms of the project and since it meant greater numbers of professionals would receive the training.

** The Santa Fe training was a solitary event so although data related to it from surveys will be included in the *content analysis* research arm of the project, it will <u>not</u> be included in the *randomized controlled trial* arm of the project because it had neither a an intervention nor a control group.

Incentives
There were several incentives for participants to attend the training and to complete the surveys on their naturally-occurring public health practice questions. If they attended the training, participants received a "Certificate of Completion" that the focus groups had suggested (and regular comments from trainees confirmed) would be useful to them during their individual annual performance review processes. Those participants in the training sessions and the survey received a $20 Target gift card. Although the gift card appeared to serve as an incentive for the recruitment phase at the front end of the project, the follow-up evaluation revealed that it played a minor role in overall motivation to participate in the project. On a 1-5 Likert Scale with a rating of "1" representing the lowest level of agreement, respondents gave an overall score of only 2.2 in agreement with the statement "The possibility of receiving a gift certificate was an important factor in participating in this project."   When his gift card was lost in the mail, and the Principal Investigator was trying to replace it, a participant in a February 2006 training session in Roswell wrote in an email: "Dr. Eldredge, you folks are awesome. I am sorry that you had to go through all this; it would have not been a real concern to me if I had not gotten one, the training and the site where to find answers to my questions was a gift itself. THANK YOU TRULY."

Evaluation Activities: Describe any evaluation of outreach activities.

This combined training and research project included two anonymous formal evaluation activities: (1) an evaluation form distributed and collected immediately following the training sessions; and, (2) a follow-up evaluation distributed approximately two months after each training session.

Immediate Anonymous Evaluation
At the conclusion of each training session the Principal Investigator distributed a one-page evaluation form that asked participants to offer feedback on the delivery of the training and the content of the training. The content section of the evaluation form was linked directly to project learning objectives. Both aspects requested additional feedback through open-ended questions. Following each pair of trainings by site these evaluation forms became the basis for revising the handbook and altering what was covered and with what degree of emphasis during future training sessions. Table Three in the Appendix summarizes these immediate forms of feedback. The instructor also drew on

his 27 years experience as a teacher in the design and redesign. His real-time observations during the training sessions on what aspects seemed to have greatest relevance to the trainees also contributed to his revising the handbook and lesson plans for future training sessions. Originally, the training sessions devoted almost an hour on Evidence-Based Public Health and another hour on hands-on skills development on searching PubMed for public health subjects. The evaluation forms and other feedback from participants led to a decreased emphasis on Evidence-Based Public Health and an increased emphasis upon PubMed training.

Highlights from Table Three in the Appendix compiled from the 83 immediate evaluations, as rated on a five-point Likert Scale with a rating of "5" as the highest, include:

The instructor presented material at a level appropriate for me 4.8

The instructor was able to answer questions clearly & concisely 4.8

The progression of the session was logical & coherent from beginning to end 4.8

I now am more aware of useful statistical and information websites
with relevance to public health 4.7

I am now more proficient in searching for evidence in PubMed 4.7

Follow-up Anonymous Evaluation
Approximately two months after each training session all participants were sent two-page follow-up evaluation forms. These follow-up evaluation forms sought to discover what content from the training sessions had proven most useful. The follow-up evaluation forms also sought information on the types and the frequency of questions participants had raised since the training as part of the research arm of the project.

Highlights from Table Four in the Appendix compiled from the 68 returned follow-up evaluations, as rated on a five-point Likert Scale with a rating of "5" as the highest, include:

Since my training session, I am more confident I find an answer
to these questions [questions raised related to job duties] 4.3

Since my training session, I am now aware of the strengths
and weaknesses of different information resources 4.3

I would recommend this training to a colleague 4.5

Occupational Groups
Following completion of all training sessions the Principal Investigator compiled a table of occupational groups represented in the Department of Health professional-level

employee participants. This table served two purposes. First, it revealed the multi-disciplinary profile of the public health workforce. Second, it assisted in testing the prior research on the information needs of primarily physicians against the information needs of a far more diverse public health workforce. Table Two below summarizes the occupational composition of the project trainees.

Table Two. Occupations of EBPH Informatics Trainees

Occupation	Numbers
Administrators	4
Certified Nurse Practitioners	9
Dieticians	1
Disease Prevent Specialists	2
Epidemiologists	9
Health Educators	6
Nurses	23
Nutritionists	4
Physician Assistants	1
Physicians	10
Program Directors	9
Social Workers	3
Other	6
Total	**87**

Problems/Corrective Actions: Describe any significant problems encountered and any changes made in implementation of the project.

The quarterly reports document the entire catalogue of problems encountered during this project. Only two problems stand out as having long-term effects upon this project.

Email System Problems
First, during the two major recruitment phases of this project there were significant problems with the statewide email system. During the July-September 2005 period the state government transitioned from a client based email system to the web-based Microsoft Outlook system. The state government also implemented a new, more rigorous firewall for handling incoming email messages, which had a tendency to intercept emails from the Principal Investigator that included attachments. Finally, email messages publicizing this training project might have been received, but the recipients were so unfamiliar with their new email system they could not always make this determination. One regional director had to sort through approximately 1,000 email messages sequentially to determine who had responded to her invitation to participate in this project. The second recruitment phase for February and March 2006 training sessions coincided with a near-total collapse of the statewide email system during the January 12-23, 2006. The regional office in Roswell had a secondary problem of having a failed fax system during most of this period.

Hurricanes Katrina and Rita
Amazing as it might sound, the Department of Health in this landlocked and arid state was heavily impacted by plans to assist in the recovery operations for these two hurricanes. Governor Bill Richardson committed the state to handle up to 6,000 medical evacuees and refugees. This scale of in-state operation never occurred, but the recruitment and retention in this training program was thwarted as Department of Health professionals responded to the immediate needs of those evacuees brought to New Mexico, deployed to the Gulf region, or reassigned to fill gaps caused by the deployments of their colleagues.

Lessons Learned/Significant Feedback:

- The use of *focus groups* involving both public health faculty and graduate students with substantive public health work experience provided invaluable information that led to revisions in how we recruited and trained Department of Health professionals.

- The full support of the regional directors or their designees provided essential support for this project, particularly in supplementing the problematic email system.

- We were impressed on several occasions by the outstanding skills demonstrated by Department of Health professionals while in the crisis management mode. The downside of this mode of operation, however, was that Department of Health professionals had to handle multiple crises, which sometimes made it difficult for them either to receive communications or participate in scheduled training sessions.

- The use of both email and phone call reminders increased training session attendance.

- Department of Health professionals learned best through their frequent hands-on exercises during the training sessions.

- The use of Target gift cards might have served as a useful preliminary incentive to participate in the project for many enrollees, but the training itself became a primary incentive by the completion of the training sessions, as evidenced by the anonymous follow-up evaluation results.

Preliminary Research Results:

There are several preliminary translational aspects of the research in this project worthy of sharing despite the need for further rigorous analysis:

The *content analysis* arm of this project noted that in the Evidence-Based Public Health categories for question types, Statistics and Determinants, were the predominant question types on returned surveys from project participants. Statistics in this context are defined as "How often a disease or condition exists within a specified population. Usually includes descriptive statistics that gauge the frequency of conditions and how these rates of frequency compare with other populations. Includes questions related to surveillance and sentinel events." Determinants are defined as those questions that "…seek to predict an outcome under similar circumstances. These questions also include risk and protective factors."

The *content analysis* arm of the project determined that the following subject categories were most popular in the survey question, when classified using the University of Massachusetts' Soutter Library public health subject classification system:

1. Communicable Diseases, which included such topics as disease outbreaks, microbiology, virology, immunization, travelers' health, and diseases spread by water or food.

2. Health Services Administration, which included such topics as planning, health policy, evaluation, health economics and financing, regulation of health care, health law and health ethics.

3. Epidemiology, which included risk assessment and population-based health research.

Preliminary results from the *randomized controlled trial* with all data cleanup now completed indicates that the Intervention group generated twice as many questions as the Control group following the EBPH training session.

Projected Activities for May-June 2006

This final report includes all remaining text descriptions of activities during the award period. A separate final invoice will cover all remaining incurred expenses. All activities during May-June 2006 will be directed toward analyzing and communicating our findings to the public health and library professional communities.

The PI and Investigator Richard Carr will complete preparation of their electronic poster session for the MLA Annual Meeting during May 2006. They also will be preparing the contributed paper about the randomized controlled trial for the Evidence-Based Public Health program at the MLA Annual Meeting. They will be preparing their manuscripts for articles about these two research activities over the summer.

The PI already has met the Secretary of Health twice. These discussions included a review of this project. The Secretary was impressed with the project and with the reports

she had been receiving independently from the field from her employees. In addition, the regional directors and the directors of nursing services for the Department of Health have invited the PI to present on this project at their upcoming meetings later this year.

Acknowledgements

The Principal Investigator thanks his colleagues at the University of New Mexico (UNM) Health Sciences Library and Informatics Center (HSLIC) for their support for this project. In particular, he thanks Associate Vice President for Knowledge Management Holly Buchanan and HSLIC Deputy Director Janis Teal for their expert assistance. The Principal Investigator also wishes to thank administrative staff members Cathy Brandenburg, Marcia Sletten, MaryLou Seyl, and Natalia Koup for their assistance.

Department of Health Chief Medical Officer Ron Voorhees, M.D., provided essential support from his agency. This project could have never enrolled so many prospective trainees and the training would have never proceeded so smoothly without the continuous involvement of the regional directors or their designees: Karen Armitage, M.D., Debra Belyeu, R.N., Corazon Halasan, M.P.H., Eugene Marciniak, M.D., and Margy Wienbar, M.S.

Finally, the Principal Investigator appreciates all of the encouragement provided to this project from National Network of Libraries of Medicine South Central Region (NN/LM SCR) administrators Renée Bougard and Michelle Malizia.

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**Table Three. Evaluations Collected Immediately Following EBPH Informatics Training Sessions.
Cumulative Average Scores by Session on a Five Point Likert Agreement-Disagreement Scale**
(1= lowest; 5 = highest)   *n* = 82

	1	2	3	4	5	6	7	8	9	10	11	
Structured Questions:												
The instructor presented material at a level appropriate for me	4.8	5.0	4.7	4.7	4.9	4.9	4.5	4.6	4.6	4.7	4.8	**4.8**
The instructor was able to answer questions clearly & concisely	4.6	5.0	4.8	5.0	5.0	4.9	4.7	4.8	4.7	4.5	4.9	**4.8**
The progression of the session was logical & coherent from beginning to end	4.8	5.0	4.7	4.9	4.9	4.9	4.3	4.7	4.9	4.5	4.9	**4.8**
The pace of the instruction was suitable for my needs	4.8	4.5	4.6	4.4	5.0	4.9	4.1	4.6	4.7	4.3	4.8	**4.6**
The instructor checked participants' understanding of the material during the session	4.6	5.0	4.7	4.7	5.0	4.9	4.6	4.4	4.9	4.7	4.8	**4.8**
I now am more aware of the definition, process, and types of questions searched in EBPH	4.2	5.0	4.2	5.0	4.7	4.9	4.6	4.5	4.9	4.7	4.6	**4.7**
I now am more aware of useful statistical and information websites with relevance to public health	4.6	5.0	4.6	4.9	4.7	4.9	4.6	4.5	4.9	4.7	4.7	**4.7**
I now am more aware of the free peer-reviewed public health journals available to me via the Internet	4.2	5.0	4.4	4.7	4.7	4.8	4.6	4.7	4.9	4.7	4.9	**4.8**
I am now more proficient in searching for evidence in PubMed	4.6	5.0	4.1	4.7	4.5	4.8	4.0	4.3	4.7	4.7	4.8	**4.7**

Open-Ended Questions:

How could have the instructor made the session more relevant to your needs?
10/7/05 It was great.
10/7/05 None. Perfect for a PhD.
11/4/05 He did everything very well.
11/4/05 More basic, slower

02/3/06 It was very relevant
03/10/06 Very relevant to epidemiology.
03/10/06 Pub Med a little fast. Nice pace to browse at beginning of class

I would have liked to learn more/less about (circle one):
8/12/05 Too many to list
8/12/05 PubMed: a full session on PubMed would be extremely helpful
8/12/05 DoH priorities and other states
9/16/05 More time searching PubMed with help.
9/23/05 PubMed (more)
9/23/05 Just more practice time
11/4/05 PubMed
11/18/05 Free journal sites
11/18/05 All info was great & easy to follow
03/10/06 Conducting lit searches on difficult questions-but it would be most useful when the issue arrives.

Other comments:
8/12/05Thank You!
8/12/05 Great opportunity to practice new skills
8/26/05 Thank you for waiting for all to be present (including me) to begin. I understand that (this) led to having to move through (the) material more quickly!
8/26/05 Great info! Thank you!
8/26/05 Thank you!
8/26/05 Very Helpful.
8/26/05 Thank you!
9/2/05 Pleasant manner, excellent instruction, great pace for my level of computer knowledge
9/2/05 A great thing to do. Still need work though (PubMed).
9/2/05 Thanks! At times fast (pace of class).
9/2/05 This was all very helpful.
9/16/05 Thanks-helpful to find search. Way cool! Learning objective 3
9/16/05 Excellent/useful
9/16/05 Would have appreciated more time, longer class.

9/16/05 Thank you!
9/23/05 Enjoyed your patience! Thanks!
9/23/05 Thank you.
9/23/05 Will be more helpful with practice.
9/23/05 Good job! Txs!
9/23/05 Very nice meeting you, Doc!
10/7/05 Thank you so much Dr. Jonathan. Hope to see you again.
10/7/05 Thanks.
10/7/05 Thanks for opening new windows of opportunity in finding answers
10/7/05 This was great!
10/7/05 Just need time to practice.
11/4/05 (a) little slow
11/4/05 PubMed too fast
11/4/05 Good training
11/4/05 I like a faster paced class. Also, it is hard to have questions prior to class, because we didn't know really what we were to do.
11/4/05 Would like to have another training in about six months.
11/18/05 Assistance w/finding specific information I have been looking for was very helpful.
11/18/05 Training is very helpful for searching for topics!
11/18/05 Despite fast pace of class I really enjoyed. I definitely can say it will be very helpful.
11/18/05 This was great! I wish I could spend more time doing searches, thanks!
02/3/06 Very good-Thank you.
02/3/06 Great presentation, focused and easy to understand, this course will help me greatly in my practice and education.
02/17/06 Excellent
02/17/06 Thank you!!
03/10/06 1) Thanks!!!
03/10/06 Thanks for doing training @ our work site! And for the Target card!
03/10/06 Perhaps offer a more advanced search strategies class once we have had a few months to practice what we learned today.
03/10/06 Excellent training.

Key to Session Numbers

Session Number	Number of Responses	Date	Location
1	5	August 12, 2005	Santa Fe (Region 2)
2	4	August 26, 2005	Santa Fe (Region 2)
3	9	September 2, 2005	Albuquerque (Regions 1 & 3)
4	7	September 16, 2005	Albuquerque (Regions 1 & 3)
5	7	September 23, 2005	Roswell (Region 4)
6	8	October 7, 2005	Roswell (Region 4)
7	11	November 4, 2005	Las Cruces (Region 5)
8	10	November 18, 2005	Las Cruces (Region 5)
9	7	February 3, 2006	Roswell (Region 4)
10	6	February 17, 2006	Roswell (Region 4)
11	8	March 10, 2006	Santa Fe (Region 2)

11 sessions and 82 evaluation form respondents

File: PartnersEvaluationsImmediate Table 3

Table Four. EBPH Partners: Final Anonymous Follow-Up Evaluation
n= 70

Section One: Likert Scales (1=lowest; 5 =highest)

Rate the statement according to your level of agreement   Disagree   Agree

1☐   2☐   3☐   4☐   5☐

QUESTION FORMULATION: *Since my training session, I am*

More aware of asking myself questions related to my job	**4.1**
More confident I will find an answer to these questions	**4.3**
Aware that I am raising more of these questions than before	**4.1**

SEARCHING FOR EVIDENCE: *Since my training session, I now use more often:*

PubMed to answer work-related questions	**3.8**
Some of the statistics websites we discussed to answer questions	**3.8**
Some of the public health information websites to answer questions	**4.0**
Some of the databases we covered to answer questions	**3.8**
Free, open-access public health journals we discussed	**3.9**

CRITICAL APPRAISAL: *Since my training session, I am now aware of:*

The strengths and weaknesses of different information resources	**4.3**

OVERALL EVALUATION

The possibility of receiving a gift certificate was an important factor in participating in this project	**2.2**
I would recommend this training to a colleague	**4.5**

Section Two: Structured Questions

Many of you have told us that you were unable to capture all of your questions as they occurred due to a busy work schedule. Please estimate the following number (#) of questions you raised, on average, *per week*, and what percentage of those questions you were able to report.	**6.3**
(%) Percentage of these questions actually reported on the surveys	**36%**

Please RANK the importance to your work of the following information, resources, and skills covered during your Evidence-Based Public Health (EBPH) Informatics training (1=high; 5=low):

1	PubMed Searching *(64)*	2.3
2	Statistics Websites *(64)*	2.6
3	Other Databases (Toxline, Tox Town, MedlinePlus, etc.) *(62)*	2.8
4	Public Health Information Websites *(62)*	2.1
5	EBPH Background (definition, process, etc.) *(60)*	2.6
6	Free, Open-access Public Health Journals *(57)*	2.5
7	Other: *(None mentioned)*	n/a

Notes: Respondents were given seven (7) choices with only five (5) options to rank. The numbers in the left-hand column reflect the number of "votes" given to each aspect of the training session to arrive at a ranking. It was obvious from viewing some responses on their surveys that approximately 15 respondents accidentally gave scores of "5" or "4" thinking these were high rankings. This observation was validated by anonymous evaluations collected immediately following the training sessions. This confusion might have dampened the actual scores given in the right-hand column.

Section Three: Open-Ended Comments:

How could have the instructor made the session more relevant to your needs?

Santa Fe 8/12/05:
The training was great but too brief to be of much help.
Santa Fe 8/26/05:
It was great! No suggestions.

Albuquerque 9/2/05:
I really liked it. Instructor's help with specific issues and questions of the day was <u>very</u> helpful.
Have a little more time during the class to individually look up certain topics and subjects.
I would have liked more time to ask questions, etc.
Fun –easy – I have often gotten just discouraged and see searching (as?) a bore –the class showed me the fun.
Longer time. More 1 on 1 time.
Albuquerque 9/16/05:
It was as needed, which was great!
Was just fine.
None.
Roswell 9/23/05
He was patient and all around great.
Roswell 10/7/05
He did a great job.
He was great!
Thank you for the information shared.
The instructor did a great job!
Las Cruces 11/4/05
It was a good session.
Las Cruces 11/18/05
Smaller groups to have more one on one to ask questions about navigating websites.
All needs were met. Thanks for all the great info!
Roswell 2/3/06
I feel the instructor did a great job!
Roswell 2/17/06
It was very relevant to my job & he did an excellent presentation.
He presented well.
Santa Fe 3/10/06
Session was too short—could be 1 full day to delve into websites.
Made it very relevant at the session.

I would have liked to learn more/less (circle) about:

Santa Fe 8/12/05:
(no comments)
Santa Fe 8/26/05:
(no comments)
Albuquerque 9/2/05:
Just more time to answer the questions facing me at work with the expertise of the teacher-liked it as is, though.
More of everything (same old time issue)
How to use the data in community development activities.
Albuquerque 9/16/05:
Statistics in public education.
Roswell 9/23/05
More sites relative to my specific needs, but he showed me how to get there.
Roswell 10/7/05
Grateful for this opportunity.
Las Cruces 11/4/05
Nothing in particular; I thought it was a good training-
Information for patient use.
Las Cruces 11/18/05
More on public health websites and free open-access public health journals!
Roswell 2/3/06
Free medical/nursing journals.
I think with the time allowed for the training it gave enough information to search for the answers to questions.
Roswell 2/17/06
I thought it was all very relevant & helpful.
Santa Fe 3/10/06
(no comments)

Other comments:

Santa Fe 8/12/05:
Very informative training. I have not taken the opportunity to use resources yet, but plan to.
Enjoyed the instructor
It would be nice to get answers to questions, not just submit questions.
Santa Fe 8/26/05:
Thank you for offering this free, valuable course.
Thank you!
This was helpful to "do" in a session and have the manual (handbook) with notes that were provided. The pens with the web address were helpful, too.
Albuquerque 9/2/05:
Excellent teacher.
Worthwhile learning experience!
I got more than I expected so it was great.
Excellent opportunity!
Teacher was excellent – informative, enthusiastic, patient!
Albuquerque 9/16/05:
Training was very good & met my objectives.
Thanks.
Especially liked the resources & how to use PubMed handouts.
Roswell 9/23/05
I enjoyed the training, but due to a busy schedule did not/have not had time to give as much attention as I would have like to the research!
Thank you again!
Good training + resource information.
Roswell 10/7/05
Thanks for offering this training. I believe it is vital to know & understand this process. Many PHNs are ADN nurses and have had very little training in this area.
Thanks for the training.
Thank you for doing this. I learned much more about some of these databases! ☺

Enjoyed!
Las Cruces 11/4/05
Dr. Eldredge's personable approach was very helpful and appreciated.
I enjoyed the class and learned more than I thought I would--
Las Cruces 11/18/05
Enjoyable course!
It was wonderful training—Thanks!
Information was great. I use sites for my work + graduate studies.
Roswell 2/3/06
This training was excellent.
Overall, good training & very helpful for my practice.
Roswell 2/17/06
(none)
Santa Fe 3/10/06
Excellent training; please do more in the future.
Thanks so much!
Participants should be encouraged to bring their questions & search for & find the answers. Thanks for the training!!
Thank you!
Offer a follow-up training in 6-12 months for those who did this first training.
Excellent training. Thank you.