Evidence-Based Public Health Course

Six-Month Follow-Up Survey Report

June 16, 2020

Executive Summary

This report summarizes findings from a six-month follow-up survey with participants of the National Association of Chronic Disease Directors (NACDD) sponsored Evidence-Based Public Health (EBPH) Course offered by the Prevention Research Center in St. Louis.

From three courses held in 2019, 91% of participants completed the follow-up survey. Most were from state health departments (70%) and a little over half were program managers or administrators (51%).

Participants apply knowledge and materials from the course: Participants reported using knowledge/materials from the course most frequently to plan a new program/policy, search the scientific literature for information on programs/policies, and modify and evaluate existing programs/policies. Participants offered detailed examples of how they applied learnings from the course in their work. Common themes among examples included 1) implementing and/or making program/policy decisions, evaluating programs/policies, training others and/or sharing resources and concepts and working with partners. For example, one participant who felt they had a firm grasp on the course content offered, *"... the training gave me tools for sharing that knowledge with others including colleagues and students of public health practice."*

Participants' environment matters for course impact: Not having enough time was the most common reason that participants did not use course content/materials as much as they had intended. In examples of changes needed within participants' work units to increase evidence-based practice, participants reported issues of time, agency/leadership support, and training needs surfaces as common themes. This highlights the need for agencies to create work culture and/or environments where aspects of evidence-based public health practice are able to fully take root.

Follow-up training and resources are needed: Taking knowledge from the course and applying it to public health practice can be a complex process. A common theme among suggested course improvements was to provide follow-up training and/or some form of "check-up" with participants and/or agencies after the course. Similarly, participants acknowledged that the course was very condensed and suggested spreading material out across more days/time. One participant described the need to reinforce what was learned, *"Perhaps the addition of quarterly chats or webinars to reinforce what was taught and solidify connection with others from the training."* This may be a consideration for further planning, though sustainability of ways to continue reinforcement should be embraced and encouraged by agencies with some sort of ownership.

Overall, the EBPH course was useful and relevant to participants. Within six months of attending, participants applied skills learned and offered several actionable suggestions for continuing evidence-based practice within their agencies.

I. Introduction

With support from NACDD and the Centers for Disease Control and Prevention, the Prevention Research Center in St. Louis offers a 3.5-day course in Evidence-Based Public Health (EBPH) that focuses on ten specific content areas to improve public health practice:

1. Introduction to evidence-based decision making
2. Assessing and engaging communities
3. Quantifying the public health issue
4. Developing a concise statement of the issue
5. Searching and summarizing the scientific literature
6. Developing and prioritizing program and policy options
7. Developing action plans and logic models
8. Understanding and using economic evaluation
9. Evaluating the program or policy
10. Communicating and disseminating evidence to policy makers

These skills act as a framework for the course. The EBPH training addresses many of the core competencies for public health professionals adopted by various accrediting bodies. Through lectures, practice exercises, and case studies, the course takes a "hands-on" approach and emphasizes information that is readily available to busy practitioners.

Table 1. Participant characteristics.

	Respondents (N = 70)
Course	
Apr. 2019, STL	20 (28.6%)
Jul. 2019, CT	28 (40.0%)
Jul. 2019, STL	22 (31.4%)
Organization type	
State health department	49 (70.0%)
City or county health department	3 (4.3%)
University	10 (14.3%)
Coalition, advocacy group, CBO, VHO or other	7 (10.0%)
Years in public health	
mean (sd)	11.7 ± 9.2
Position	
Program manager/administrator	35 (50.7%)
Department or division head/deputy director	6 (8.7%)
Health educator	6 (8.7%)
Academic researcher or educator	6 (8.7%)
Program planner/evaluator	8 (11.6%)
Epidemiologist or statistician	4 (5.8%)
Other	4 (5.8%)
Job change since course	
Yes	3 (4.3%)
No	66 (95.7%)
Master's degree	
Yes	51 (72.9%)
No	19 (27.1%)

Twice a year, the course is offered at Washington University in St. Louis. NACDD provides travel funds for practitioner teams and interested individuals from state chronic disease prevention and health promotion units to attend. NACDD also supports state-based trainings each year. States can apply to bring the

training team on site. The goal is to build capacity within state public health agencies by training staff and future trainers who will replicate EBPH training within their states. As part of an effort to evaluate the impact of EBPH course, surveys were sent to 2019 course attendees six months after participating. This report summarizes results of the survey.

To date, **three courses** have follow-up data (presented here). The total number of course participants for the courses included was **88**. Of those we determined that **11** were ineligible for the survey for various reasons (e.g. left the agency, on maternity or other leave, etc.). From the **77** eligible participants, **70** completed the survey. This **91%** response was reached after three reminder emails and one round of call reminders.

II. Participants

The majority of participants (**70%**) were state health department employees and most had earned at least a master's degree (**73%**) as their highest level of education attainment (**Table 1**). A little over half (**51%**) were program managers or program administrators. On average, participants had **12** years of experience in public health.

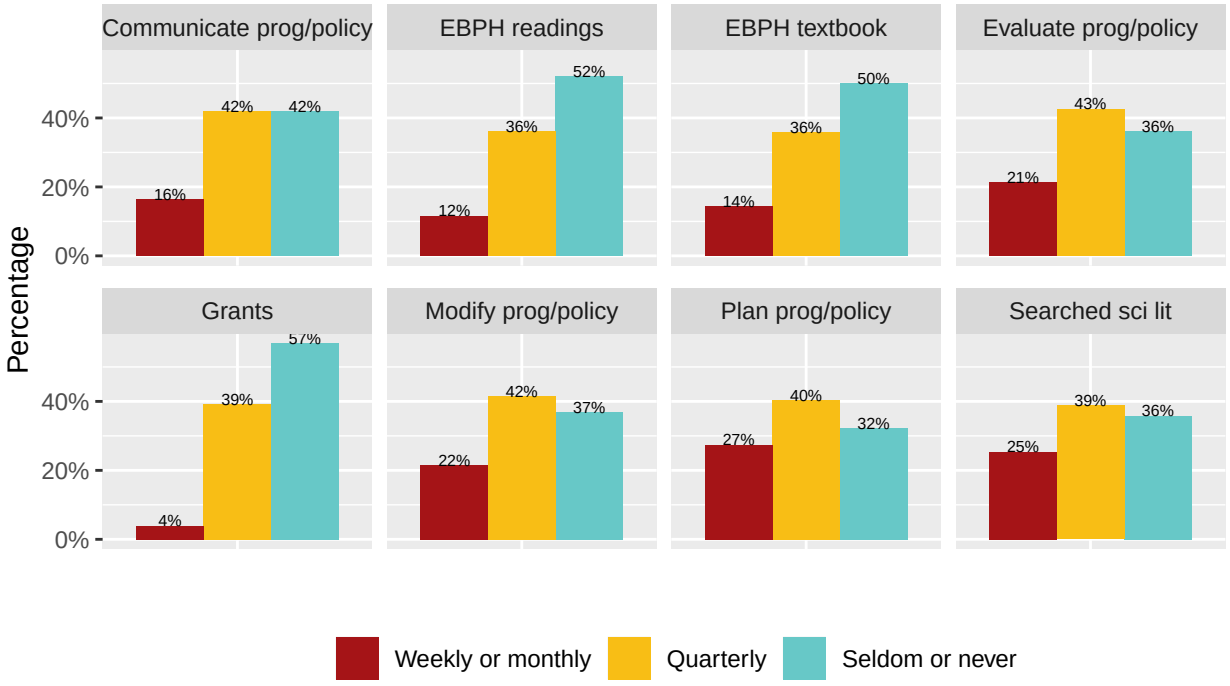
A small number (**4%**) changed jobs since completing the EBPH course, but this is likely conservative given we excluded participants who had left the agency.

III. Course Materials and Skills

Overall, the most frequently used materials and skills (**Figure 1**) were applied in

- Planning a new program or policy (**27%** weekly or monthly)
- Searching scientific literature for information on programs and policies (**25%** weekly or monthly)
- Modifying an existing program or policy (**22%** weekly or monthly)
- Evaluating a program or policy (**21%** weekly or monthly)

Figure 1. Frequency of materials used.

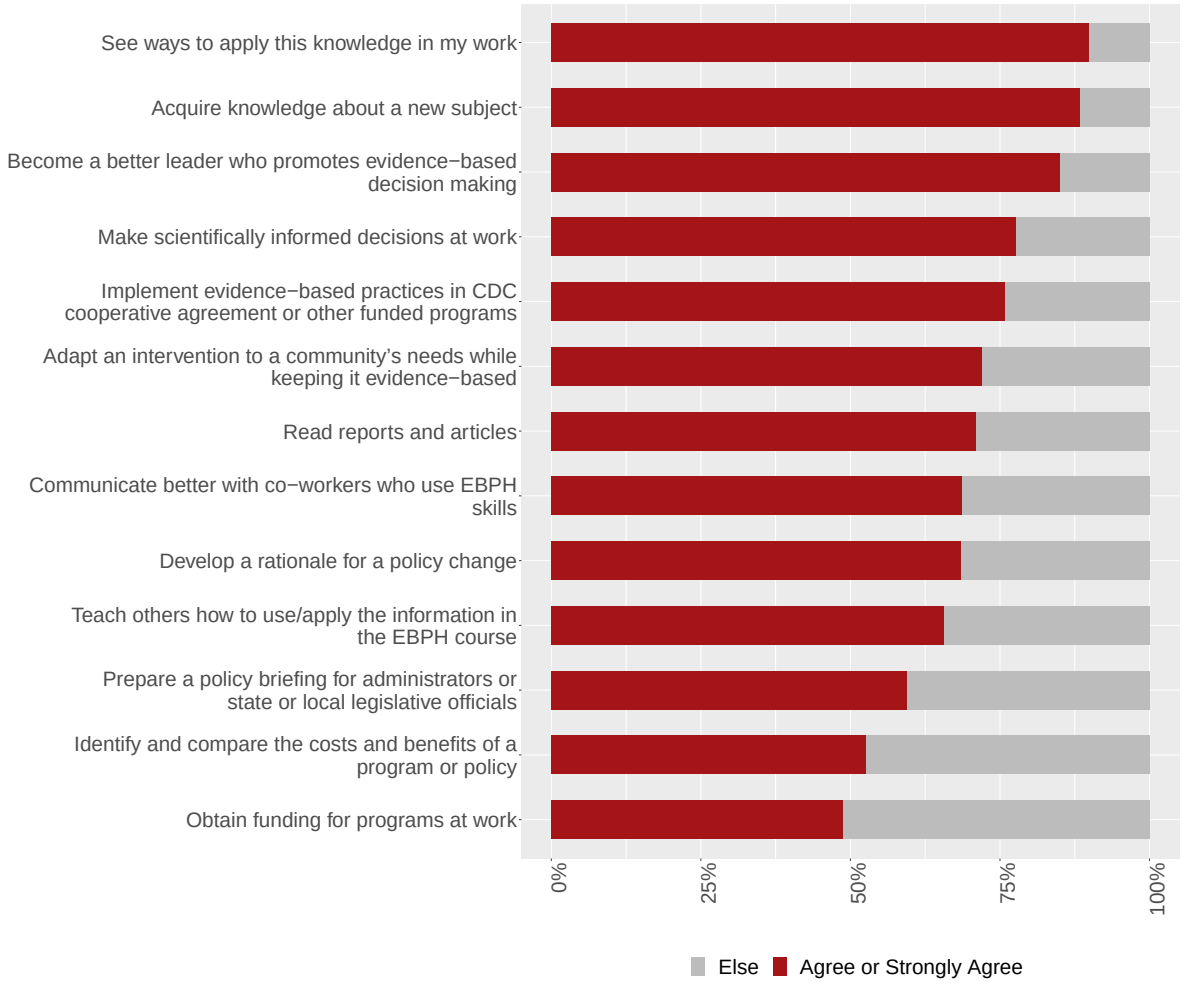


IV. Helpfulness of Course Content

Overall, participants found the course helpful in important ways (**figure 2**). They reported the course content most helpful to:

- See ways to apply this knowledge in my work (**90%** agree/strongly agree)
- Acquire knowledge about a new subject (**88%** agree/strongly agree)
- Become a better leader who promotes evidence-based decision making (**85%** agree/strongly agree).

Figure 2. Helpfulness of course content.



Participants were also invited to give an example or more detail about how the course has been most helpful. Text response answers were grouped into themes. The most common themes that emerged were:

- Implementing and/or making program/policy decisions (**N=8 mentions**),
- Evaluating programs/policies (**N=8 mentions**),
- Training others and/or sharing resources and concepts (**N=8 mentions**),
- Working with partners (**N=6 mentions**), and
- Improving public health knowledge (**N=6 mentions**).

Other themes (less than 5 mentions) included embedding concepts into agency practices, finding and using evidence resources, acquiring funding, sharing program data as evidence, and networking with other public health professionals. **Table 2** displays participant quotes from the most common themes.

Table 2. Participant examples of how EBPH course was helpful.

Theme	*Response*
Implementing and/ or making program/policy decisions	*I have been leading an EBPH project to address maternal health disparities for women of color. The training was instrumental in getting the project team on the same page regarding the process by which we will learn from the community, identify causes, develop solutions, and ensure sustainability.*
Evaluating programs/policies	*The EBPH training is currently helping us streamline our approach and strategically look at our evaluation processes in addressing a new goal to increase DPP enrollment to 58,000 participants by December 2021.*
Training others and/or sharing resources and concepts	*The EBPH training provided me with a mechanism and content to provide training to others in the field. While I may have a firm grasp of this content and already apply it to my work, the training gave me tools for sharing that knowledge with others including colleagues and students of public health practice.*
Working with partners	*The training on Logic models, PDSA cycles, evidence-based interventions, using and recording data are all tools I use on a continual basis to help partnered health systems to increase their cancer screening rates.*
Improving public health knowledge	*Helped me solidify my thinking around the use and science behind evidence-based public health.*

V. Reasons for Course Content Non use

Overall, not having time to implement EBPH approaches was the most common reason (**53%** agree/strongly agree) that participants did not use content from the course as much as they would have liked (**Figure 3**).

Other common reasons were:

- There is not enough funding for continued training in EBPH (**29%** agree/strongly agree)
- There was too much information and not enough time to process it (**24%** agree/strongly agree)
- Within my agency, there are no incentives to use EBPH (**23%** agree/strongly agree)

VI. Evidence-based Work

Overall, participants believe that the majority (**average: 78%**) of their agency's programs are evidence-based (**Table 3**). Most (**71%**) also reported that the use of evidence-based programs had stayed the same since taking the course. Near **30%** indicated an increase in the use of evidence-based program, and no one reported a decrease since taking the course.

Participants did not report discontinuing any programs because of lack of evidence of impact, though **30%** are in the process of evaluating a program/ programs and **16%** are planning to evaluate soon. About half (**54%**) have not considered this or report that it is not applicable to their situation.

Even though the perception of evidence-based programming was high (**over 78%** or programs), participants offered a range of specific changes that would increase overall evidence-based decision making within their agencies.

Figure 3. Reasons for course content non use.

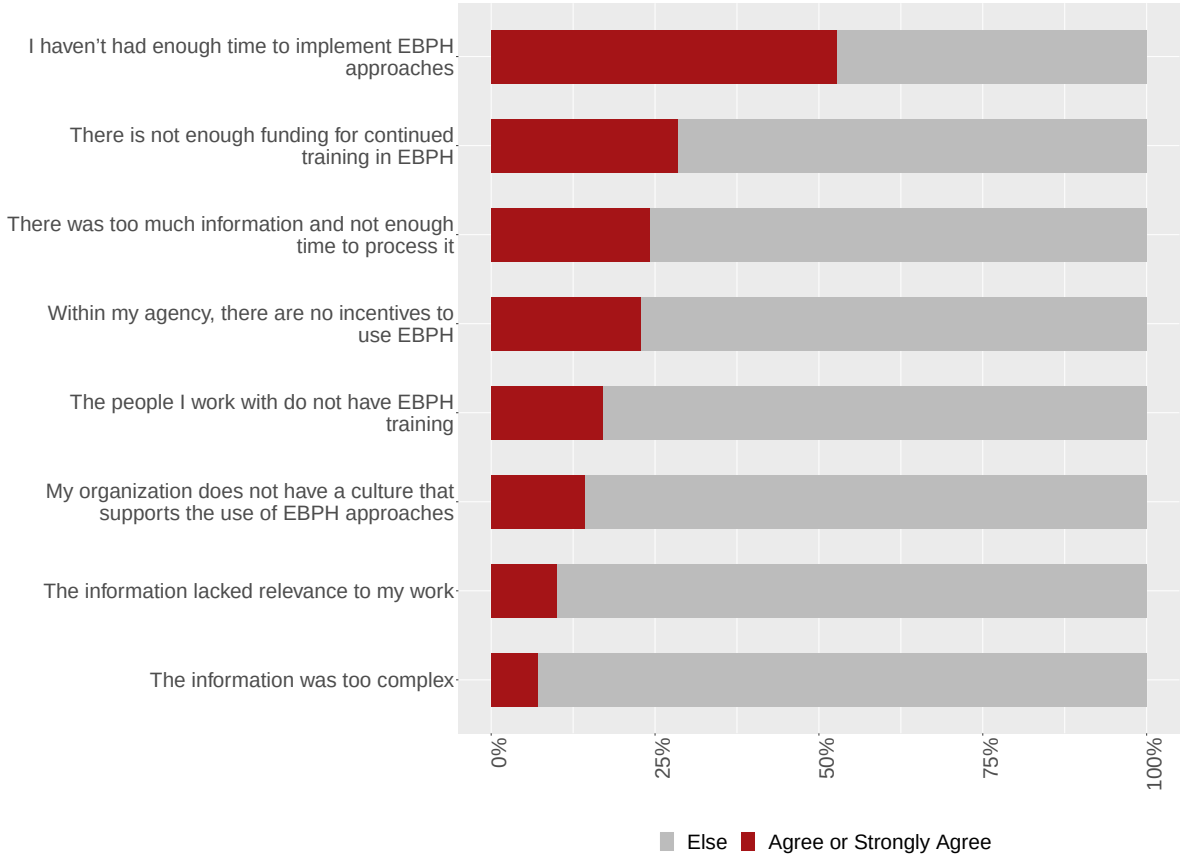


Table 3. Participant perceptions evidence-based work within their agency.

	Respondents (N = 70)
Based on your experience and best judgment, what percentage of programs in your work unit is evidence-based?	
Mean %, SD	78.36 ± 20.77
Since taking the EBPH course, the use of evidence-based programs in your work unit has:	
Stayed the same	49 (71.0%)
Increased	20 (29.0%)
Decreased	0 (0.0%)
Since taking the EBPH course, have you discontinued any programs because of a lack of evidence of impact?	
Yes	0 (0.0%)
No, but we are in the process of evaluating a program/ programs	21 (30.4%)
No, we have not had time to evaluate yet, but are planning to	11 (15.9%)
No, we have not considered discontinuing any programs	16 (23.2%)
Not sure or not applicable	21 (30.4%)

Text response answers were grouped by similar themes to further interpret. The most common theme with the most mentions (**N=10**) was that no changes were needed since agency was already practicing EBDM.

However, other themes point to changes that have the potential for sustaining EBDM at an agency such as:

- Building capacity through training (**N=8 mentions**),
- Embedding EBDM into organization practices and culture (**N=8 mentions**),
- Increased agency and/or leadership support (**N=7 mentions**),
- Increased or designated time to practice EBDM (**N=6 mentions**),
- Better evidence/data availability and systems (**N=5 mentions**), and
- Building capacity through staffing and/or partnering activities (**N=5 mentions**).

Other less commonly mentioned themes (less than 5 mentions) included expanded evaluation efforts and effectively navigating bureaucracy and systems.

Table 4. Participant perceptions of what changes are needed within work unit to increase evidence-based decision making.

Theme	*Response*
Build capacity through training	*The one thing that needs to happen most in our work unit is exposure for more colleagues to attend this training.*
Embed into org practices/culture	*Having everyone read the book and integrating discussions on EB processes into our regular workflow (i.e. staff check-in's) - but that takes time, and it's hard.*
Agency and/or leadership support	*Leadership needs to be on board. ESSENTIAL: Administration understanding and appreciation of program level work, allowing programs to focus on program planning, implementation and evaluation using EB decision making.*
Time to do EBDM	*I think it's finding the time for evaluation with your existing staff who are all busy serving the public and carrying out multiple duties.*
Better evidence/data availability and systems	*There is a dire need to improve data systems, from data entry to analysis and subsequent utilization. Too many programs are still manual.*
Build capacity through staffing or partners	*Increased staff to allow everyone the time needed to be more thoughtful, thorough, and inclusive in our decision making.*

Table 5. Suggested course improvement examples.

Theme	*Response*
Follow up training and resources	*Have some kind of follow-up training or education module to help support and compliment the training we originally attended. It was excellent.*
Spread out material over more days/time	*Longer training or less information in one day. Spend more time focusing on a specific topic. It was a lot to take in.*
Enhancements to economic evaluation module	*Provide real descriptions of programs that underwent an economic evaluation and how that may be different from Return on Investment. Which is more feasible? Which has higher value?*
Integrate more case studies/examples	*The content is quite advanced- perhaps a bit more case work that allows participants to immediately practice some of the new principles they learn.*
Pre-training preparation	*Increase the amount of pre-training information and preparation for students. I would be interested in attending additional trainings.*
Other	*It was great, just wish we could send more people! Perhaps a little bit more working with the folks from other states, just to get some new perspectives., Require attendance of upper administration (Commissioner level) in the training so that they can learn and perhaps appreciate the value of EBP.*

VII. Suggested course improvements

Participants were asked to give suggestions (if any) to improve the EBPH course. Text response answers were grouped by similar themes to further interpret.

There were several comments that were unique and did not group together logically. For those we offer a few examples in **Table 5** along with examples from some of the items that were mentioned by more than one person.

VIII. Implications

Following up with participants six months after attending an EBPH course gives a unique view into how the course and the shared content and material has impacted public health practice.

From our follow-up survey, several key learnings highlight implications to further increase evidence-based processes among public health professionals and within partner agencies providing public health services.

Key implications:

- The course content and resources are used regularly in planning a new program or policy and in searching the scientific literature. This echoes course participants' comments that the training is relevant and needed and highlights the real need to continue to update modules with the most up to date resources and templates.
- General ratings for the course were high. Participants shared detailed examples of how the course was helpful and/or how content was specifically translated into their work. This information is invaluable for understanding the longer-term impact of the EBPH course. Some concepts with lower ratings (e.g., obtaining funding) should be explored further to ensure relevancy and applicability of content and resource materials. We will continue to examine these and track common themes.
- Reasons why participants did not use the EBPH course content/materials as much as they had intended mirrored the examples given for changes their work unit could make to further evidence-based decision making practices. For example, not having enough time to implement EBPH approaches was the most common reason for non use of course materials followed by not having enough funding for continued training. This translates to needed changes identified like more time to practice EBPH and building capacity through training and staffing. Such needs point to culture shifts within agencies for training endeavors to have full potential of impact on evidence-based practice.

Overall, the EBPH course was useful and relevant to participants. Within six months of attending, participants applied skills learned/content into their work.

Limitations

Limitations should be noted along with findings from the survey. We did not use a control group (e.g. a group of people who did not receive the training) to compare findings with. Also, all data is self-report and could be bias toward over reporting the used of evidence-based processes. Finally, until we have more data from more courses collected, the sample size is fairly small which limits generalizability.

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