

Looking Long-Term: How to Utilize a Decade of Applied Epidemiology Fellowship Data to Evaluate Effectiveness

American Evaluation Association Annual Conference 2013 – October 2013

Background

The CDC/CSTE Applied Epidemiology Fellowship (AEF) was created in 2003 to strengthen the workforce in applied epidemiology at state and local health agencies. CSTE, in collaboration with CDC, HRSA, and ASPPH, established the two year program to give recent graduates from public health programs rigorous preparation and advanced training for successful careers as state or local applied epidemiologists.

The fellowship uses a mentorship model. Host health agencies must demonstrate capacity to provide an AEF fellow with technical training, research opportunities, and practical experience in the application of epidemiologic methods at the state and local level.

Program areas include Chronic Disease, Injury, Substance Abuse, Environmental Health, Maternal and Child Health, Infectious Diseases, and Occupational Health.

There have been 11 classes of fellows who have participated in the fellowship, with over 240 fellows. Recently CSTE began an intensive evaluation process to assess the long-term impact of the program on the state of state and local public health capacity and on the individual participants. Longitudinal employment data and professional development data has been analyzed for over 90 of the alumni.



Methodology

This internal utilization focused evaluation uses a mixed methods design. The evaluation relies on the engagement of alumni, staff, and host site participants to inform the evaluation and the interpretation of data findings. Data is gathered on an ongoing basis from alumni, staff, and mentors; as well as current fellows.

The evaluation is designed to address several questions including: Is the program implemented as planned? How geographically broad is the impact of the program? Does the fellowship increase applied epidemiology capacity at state/local/and tribal public health agencies.

Data is gathered through a variety of mechanisms including: Fellowship applications, Surveys of fellows/alumni/and mentors; Progress reports from fellows throughout participation; Training evaluations, Interviews with fellows/alumni and mentors; and record review.

The evaluator works with fellowship administrative staff to collect data through all of the above mentioned mechanisms. Data is then consolidated into a large database which has recently been developed to allow for longitudinal analysis of all fellow outcomes over time. Data is analyzed using basic statistical analysis (frequencies, chi-squares, t-tests) for quantitative analysis, and theme analysis of qualitative data. Geographic data for fellowship placements and career placements is done using the geographic analysis capacity in Epi Info 7.0.

Periodic reports are prepared and reviewed with fellowship administration to allow for ongoing improvement and adjustments to the fellowship and the evaluation.

This presentation is based on the geographic analysis and career placement analysis for all of the alumni for whom data is currently available.

Results

Fellows have been placed all over the United States during the past 10 years. Larger dots indicate more fellow placements. It is interesting to note that even after 10 years, there are a few states that have not had a fellow placed there yet. The fellowship is working to identify mechanisms to increase participation into those states.

Map 1: Fellow placement 2003-2012



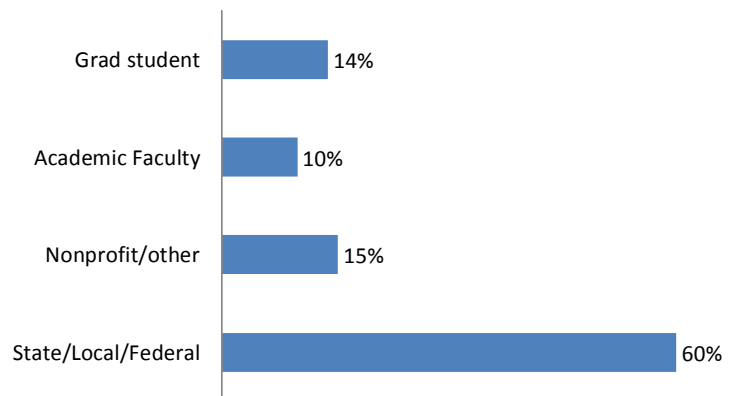
Map 2: Fellow employment 2003-2011



Over the past 10 years, almost every state has been impacted by fellows as they transition into careers. This map shows all of the places where fellowship alumni have been employed after the fellowship. Again, larger dots indicate a larger number of fellows working in that area.

Job placement data is obtained through surveys with graduating alumni, ongoing check-in communication and surveys of alumni, through CSTE member records, and through web-based searches of public data. This information is then coded and analyzed for type of employment. As seen in the graph, the majority of fellows work in state/local/or federal public health agencies. Many of the alumni who are graduate students or faculty spent at least some time working in state or local public health agencies.

Current Employment (as of 2013)



Of the 137 alumni for whom full data was available:

- 120 (88%) had worked in a state/local/federal public health environment for at least a year
- provided an average of 3 years of services to a state/local/or federal public health agency (range of 0 to 9)
- Published over 160 peer reviewed articles

Recommendations & Next Steps

Fellowship is having a broad, national impact. CSTE needs to examine opportunities to encourage and maintain alumni engagement in organization.

Continue gathering post-fellowship data on alumni (Surveys, public records, interviews) to provide in-depth understanding of impact on fellows and agency capacity.

Develop, publishing, and utilize annual reports, dashboards, and storyboards for communication with all stakeholders.