# Using Innovations in Online Learning to Generate Meaningful and Positive Public Health Outcomes

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#### Introduction

Making meaningful connections with a remote audience and discerning whether and how participants translate their newly gained knowledge into action is a central challenge of online learning. The U.S. Environmental Protection Agency (EPA) developed a successful online training model that exemplifies the benefits of applying online learning best practices and assessing training effectiveness through a simple post-training evaluation.

#### Methods

The IAQ Master Class Professional Training Webinar Series comprises ten 1-hour technical trainings focused on building the capacity of school staff to start, improve or sustain an indoor air quality (IAQ) management program. Each webinar training was presented live online. Thereafter, a recording of the live webinar was posted online, enabling stakeholders to access the on-demand version of the webinar at their convenience.

# Online Learning Events—Best Practices to Motivate

The IAQ Master Class Professional Training Webinar Series integrated the following established best practices for engaging and motivating target audiences to translate recently gained public health knowledge into meaningful actions:

- ➤ Utilize peer experts and champions as presenters. Featured presenters included unbiased technical experts, industry representatives and representatives from model school districts who have firsthand experience putting these
  - strategies into practice, ensuring that the key messages resonated with the audience and that success in improving IAQ appeared achievable.
- ➤ Showcase success. The webinars featured examples of EPA guidance being implemented in school districts and the positive outcomes these school districts achieved, allowing the participants to envision this same success for themselves.

## > Provide recognition.

- Participants who completed and evaluated even a single webinar training received a PDF certificate of completion.
- Those participants who completed all 10 webinars were rewarded with a certificate of achievement in the mail.





Figure 1: Examples of IAQ Master Class Recognition Certificates.

# Measuring Change in Knowledge and Commitment to Action

Following each webinar (live and on-demand), participants were asked to complete a brief online evaluation to assess the webinar content and to provide feedback on how they would use the information to improve IAQ in schools. Responses were analyzed to assess the potential effect of the series on IAQ management practices in schools. Evaluation questions included—

- How the webinar changed their level of knowledge and commitment to action.
- How the webinar would affect their IAQ management practices.



## Results

In the first year of the webinar series, 1,291 individuals from about 550 school districts located in 50 states and the District of Columbia participated in the trainings (see Figure 2).

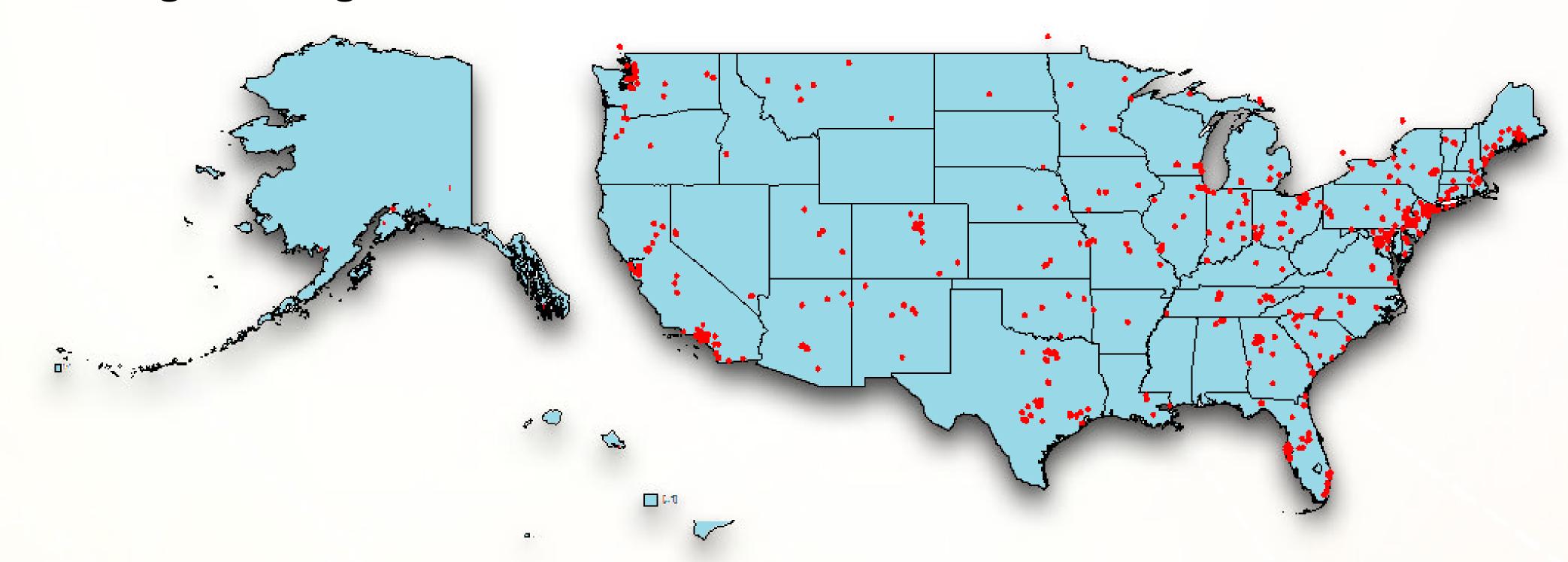


Figure 2: Geographic distribution of school districts participating in the webinar series.

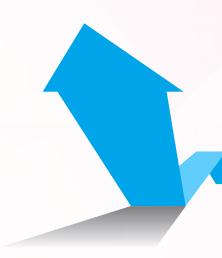
The trainings were viewed more than 3,000 times (live and on-demand), and 1,300 evaluations were completed (after viewing live and on-demand).

# Increasing Knowledge and Motivating Action



#### Increase in Knowledge

Almost 73 percent of respondents reported an increase in knowledge as a direct result of viewing a webinar, with an average self-reported increase in knowledge of 39 percent.



#### **Increase in Commitment to Action**

Nearly 80 percent of respondents expressed a commitment to taking essential actions to adopt effective IAQ management practices in their school after viewing at least one webinar.

### Live Online Trainings versus On-Demand Online Trainings

On-demand trainings were just as successful as live online trainings in—

- Increasing knowledge: 76 percent of on-demand respondents reported an increase in knowledge, compared to 72 percent of live respondents.
- Increasing commitment to action: 79 percent of on-demand respondents reported a commitment to action, compared to 75 percent of live respondents.

In addition, making the Web-based trainings available in an on-demand format has led to increased participation.

## Breaking Down Geographic Barriers

Presenting trainings online (live and on-demand) can eliminate geographic and financial barriers associated with in-person events and increase access to knowledge for those who would not be able to travel to an in-person event.

## Conclusion

- Effective public health outreach trainings convey key messages and information to motivate participants to take actions. EPA's IAQ Master Class Professional Training Webinar Series successfully utilized peer experts and champions as presenters, showcased success from actions being taught, and provided recognition to those taking the training to motivate the target audience to translate the knowledge provided into meaningful actions.
- In addition, since measuring public health outcomes can be time-consuming and costly, conducting brief evaluations (consisting of fewer than 10 questions) after trainings to measure change in knowledge and change in commitment to action could help program staff measure the impact of their efforts.

If you work with schools or in a school, taking EPA's IAQ Master Class Professional Training Webinar Series will help you manage indoor air quality and create healthier learning environments.