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Ideas for Enhancing and Increasing Membership

Priscilla Oliver, PhD

As I joined the Board of Directors of the National Environmental Health Association (NEHA) as Second Vice-President in 2016, I was given the assignment of Membership Committee Chair. At the time, the goal was to increase NEHA membership to 5,000 members. NEHA had some 4,000 members at that time and now we have over 6,000 members.

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pared with female participants, tended to view air pollution as being harmful ($t(288.75) = 1.66$, $p = .09$) and that their mode of transportation contributed to ambient air pollution levels ($t(316.71) = 2.77$, $p = .006$). White and Latino participants, compared with other ethnicities, reported that breathing air pollution impacted their personal mode choice to a greater degree ($F(2, 376) = 3.57$, $p = .03$; using Fisher's least significant difference post hoc test). There were also differences between marital status and income with respect to air pollution perceptions. Divorced, widowed, or separated persons presented lower perceived harm compared with single or married persons. We found that higher wealth was associated with stronger beliefs that the likelihood of breathing air pollution impacts one's personal mode choice. We also found differences in perceived harm and contribution to overall air pollution based on participants' political orientation, in that self-identified liberal participants tended to perceive greater harm from air pollution exposure when compared with self-identified conservative participants. Furthermore, participants who identified as moderate liberals or moderate conservatives reported greater acknowledgement of their own contribution to overall air pollution levels compared with participants who identified as neutral or polar political affiliations such as very liberal or very conservative (Table 3).

A reduced model predicting perceived harm was composed of marital status, political orientation, belief that choice in mode of transportation impacts overall air pollution, and that exposure likelihood impacts choice in transportation mode. One's belief in the impact of personal choice on air pollution was predicted by perceived harm and that exposure likelihood impacts choice in transportation mode. Exposure likelihood impacts choice in transportation mode and was determined by ethnicity, income, perceived harm, and belief that choice in mode of transportation impacts overall air pollution. Full results are presented in Table 4.

Discussion

This study sought to explore if differences exist between individuals' perceptions of air pollution exposure during commuting and actual (measured) exposures. We found that participants' perceived ranking of air pollution exposure had little variation (i.e., were closely centered on the mean ranking) and were quite different from measured exposures. Badland and Duncan (2009) reported that participants recognized that air pollution exposure during commuting is harmful to health but that this knowledge did not necessarily discourage them from using active modes of commuting where exposures are typically higher. Our study adds to these findings in that our participants tended to underestimate differences in exposure based on mode of commuting, even while agreeing that air pollution exposure poses a moderate health risk. Together, these two studies suggest that a knowledge gap exists within the general population related to how mode of transportation influences one's air pollution exposure during commuting. Specifically, commuters might not be aware of how pollution concentration, commute time, and breathing rate interact to influence one's overall inhaled pollution dose—and that these factors can vary significantly by transportation mode.

Understanding how differences in transportation mode affect one's overall inhaled dose of air pollution can be particularly important for active commuters, who can experience significantly higher exposures than those using public transportation or private automobiles. For example, Briggs and coauthors (2008) reported that fine particulate matter exposures (defined as $PM_{2.5}$–$PM_{1.0}$ in their study) were 2.2 times higher among participants who commuted by walking compared with those who commuted

time air pollution exposures (Good et al., 2016; Götschi, Garrard, & Giles-Corti, 2016; Zuurbier et al., 2010). Helping active commuters to understand how breathing rate, air pollution concentration along urban arterial roads, and other factors influence their overall inhaled pollution dose, however, could empower them to make choices that could lower their lifetime exposure. For example, in many urban areas, active transportation modes such as walking and bicycling allow for more flexibility in route choice compared with motorized forms of transportation.

One can imagine a scenario where a car driver and a bicyclist are both traveling from point A to point B and have two route choices. One route is a shorter distance but goes through a residential neighborhood. A second route is slightly longer, but travels along a main, high-speed corridor. If both were allowed to choose, the car driver would be unlikely to choose the neighborhood route because speeds are slow and there are more stop signs. The bicyclist would fare better along this route due to slower traffic speeds and reduced traffic volume. In this case, exposures would be different. If both travelers were to choose the high-speed corridor option, the bicyclist would consume a greater quantity of polluted air than the car driver would. Indeed, several studies show that $PM_{2.5}$ and other pollutant exposures are lower when active commuters take alternate routes away from major urban arterial roads used for commuting (Good et al., 2016; Jarjour et al., 2013; Zuurbier et al., 2010). Public health interventions, therefore, might begin by educating commuters about factors that contribute to their commuting exposures and the benefits to active commuters of using alternative routes.

We were interested to find a large disparity between participants' perceptions of air pollution exposure when driving a car with windows up (closed) compared with our actual measured exposure. Based on our measured exposure concentrations, estimated breathing rates, and commute times, driving with windows up was the most protective mode of commuting (Chaney et al., 2017). Briggs and coauth0.20.1p01680.20.1p01670(ticis ars60 finsi8e3p

tion. In an effort to decrease vehicle exhaust and increase physical activity, many communities are expanding infrastructure to promote active modes of commuting and use of public transportation. Adoption of active commuting, however, appears to be slow in the general population. For example, from 2006–2016, the percentage of workers commuting by car, truck, or van decreased by 1.3%, while the percentage of workers commuting by bicycle increased by only 0.1% (U.S. Census Bureau, 2016g).

During the same time period, the percentage of workers commuting by walking decreased by 0.2%. In light of our finding that commuters tend to believe urban commuting with windows open is healthier than with windows closed—considering that increasing active modes of commuting and use of public transportation can take many years to affect a large proportion of the population and that commuting is one of the highest daily air pollution exposure periods for many people—there is a strong argument in favor of additional studies on the relationships between car window position (open versus closed), car ventilation system setting (recirculate versus nonrecirculate settings), and driver exposure to air pollution. If studies continue to show that, across vehicle models, driving with windows closed and ventilation systems set to recirculate cabin air result in lower pollution exposures, public health interventions could be directed at educating automobile commuters on simple ways they can significantly decrease their overall pollution exposures.

We observed differences among participants based on self-reported political orientation. Specifically, increasingly liberal participants perceived greater harm associated with air pollution exposure. This finding fits in a broader narrative described by McCright and Dunlap (2011) in which liberals were more likely to believe that global warming and environmental factors are harmful. Polar political orientations (i.e., very liberal or very conservative), when compared with more moderate political orientations (i.e., moderate liberal or moderate conservative), were associated with lower beliefs that their own personal mode of transportation affects total air pollution levels. This polarization could in part be due to a variety of underlying attitudes and behaviors. A liberal respondent might believe they are taking action to limit their overall contribution to air pollution (e.g., using electric-powered yard tools or driving an environmentally friendly vehicle), whereas a conservative respondent might not perceive that air pollution is problematic, thus resulting in a similar overall score.

Our study has several inherent limitations. Surveys were collected via intercept methodology during a 1-week summertime period in one metropolitan downtown area. Thus, our results might not be generalizable to other locations. In this study, we used $PM_{2.5}$ as a comparison pollutant. Among criteria air pollutants, we assumed that commuters within the Salt Lake City area would be more familiar with $PM_{2.5}$ than other pollutants primarily because it is featured in the media regularly due to poor air quality along the Wasatch Front. We did not measure participant perceptions of which air pollutants they associated with bad air quality, however, som assoc82t limita58281(pol-)T25tic, iar

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data were queried in an Access 2013 database and analysis was completed using SAS version 9.4. Cases were grouped into work and nonwork. The work case definition was based upon the Council of State and Territorial Epidemiologists (CSTE) and the National Institute for Occupational Safety and Health's (NIOSH) Occupational Health Indicators for work-related pesticide poisonings definition (CSTE, n.d.). The nonwork case definition was based on the Minnesota Environmental Public Health Tracking definition (Minnesota Department of Health, n.d.).

The cases defined were as follows.

Variables for Suspected Work Cases From 2000–2015:

- Reason for the call was occupational.
- Exposure site was at the workplace.
- Medical outcome resulted in a minor effect, moderate effect, major effect, or death; also included medical outcomes not followed, minimal clinical effects possible, and unable to follow but judged as a potentially toxic exposure.
- Excluded any suspected suicide, intentional abuse, intentional action but specific intention unknown, malicious, or unknown reasons.
- Age was 16 years; also included unknown adults 20

Large pesticide categories were identified

for both work and nonwork cases annually. The reliability of poison control center data for research and surveillance depends on its completeness and accuracy. The American Association of Poison Control Centers (AAPCC) created a manual for all poison control centers to collect consistent data. Errors that are commonly made include the use and interpretation of abbreviations (Thienes, 1995, 2002), the initial substance reported (Lubbert, McVoy, Seifert, & Jacobitz, 2005), and the failure to properly document information (Seifert et al., 2005). Most U.S. poison control centers automatically upload a portion of the data to the AAPCC to conduct surveillance at the national level. Manual review of all poison control center records is impractical due to the large volume of calls (Jaramillo, Marchbanks, Willis, & Forrester, 2010). Because poison control centers serve almost the entire U.S. population, the data are useful for monitoring pesticide poisonings nationally, even though poison control centers capture only approximately 10% of acute occupational pesticide-related illness cases (Calvert et al., 2003).

Some limitations of poison control center data include, but are not limited to (Minnesota Department of Health, n.d.):

- Poison control center calls stem from a variety of reasons, including medical coun-

Abstract **Restaurants serve more than 70 billion meals in the U.S. each year. Annually, approximately 48 million foodborne illnesses occur in the U.S., yet only over 800 foodborne disease outbreaks get reported. From 1998–2013, 56% of the 17,445 outbreaks reported were associated with restaurants. While scientifically validated cleaning and sanitation strategies are available, microbial cross-contamination from environmental surfaces remains an issue. For instance, previous research shows that the cleaning tool itself can become a source of contamination. The objective of this study was to test if a flatware rest provides a physical barrier between contaminated tabletop surfaces and eating utensils. Data**

Introduction

Restaurants serve more than 70 billion meals in the U.S. each year (Jones & Angulo, 2006). In 2014, food-away-from-home sales surpassed food-at-home sales, comprising over 50% of total food expenditures (Saksena et al., 2018). Overall, adults ages 18–54 years in the U.S. consume food away from home at least 5 times per week and in 2017, consumer units (e.g., families, single persons living alone, etc.) spent on average $3,365 on food away from home (Saksena et al., 2018; U.S. Bureau of Labor Statistics, 2019).

Unfortunately, foodborne disease causes approximately 48 million illnesses each year in the U.S., yet only over 800 foodborne disease outbreaks are reported annually to the Centers for Disease Control and Prevention (Scallan, Griffin, Angulo, Tauxe, & Hoekstra, 2011; Scallan, Hoekstra, et al., 2011). From 1998–2013, 56% of the 17,445 outbreaks reported were restaurant-associated, with the most common contributing factors being those related to food handling and preparation (61%) and food worker health and hygiene (47%) (Angelo, Nisler, Hall, Brown, & Gould, 2017). Within these broad categories, cross-contamination contributed to 32% of issues linked to food handling and preparation.

For prevention of cross-contamination from environmental surfaces, proper cleaning and sanitation are the primary tools available. Previous research, however, has shown that the cleaning tool itself can become the source of contamination (Hilton & Austin, 2000; Redmond, Griffith, Slader, & Humphrey, 2004; Scott & Bloomfield, 1990). Gibson and coauthors (2012) demonstrated that generic cotton terry towels—commonly used in food service establishments (FSEs)—can readily contaminate a surface if used previously to remove pathogens from a different surface. In addition, the sanitizing compounds most commonly used in FSEs (e.g., quaternary ammonium compounds) are ineffective against norovirus, which is the primary cause of foodborne disease in the U.S. (Feliciano, Li, Lee, & Pascall, 2012; Kingsley, Vincent, Meade, Watson, & Fan, 2014; Scallan, Hoekstra, et al., 2011).

Proper cleaning and sanitation to prevent the transmission of foodborne pathogens in FSEs should be an attainable goal, but additional approaches might be warranted for enhanced protection of public health. One option to enhance protection of public health is the addition of a physical barrier. In this study, the physical barrier is a flatware rest. While flatware rests likely had their beginnings in the late 17th century or even before, these items once again entered the marketplace in the 21st century as a tool to separate the flatware from the tabletop (Byer, 2016). Flatware rests are objects of different materials (e.g., stainless steel, marble, hard plastic) that are placed on the tabletop where the "head" or "neck" of the flatware is placed on the rest itself (Figure 1). The flatware rest provides a barrier between a tabletop and the eating utensil itself.

To our knowledge, there have not been any studies characterizing the efficacy of

cross-contamination from a contaminated tabletop to eating utensils.

Methods

Preparation of Microorganisms

E. coli C3000 (American Type Culture Collection [ATCC] 15507), *Salmonella* Typhimurium LT2 (ATCC 19585), and MS2 bacteriophage (ATCC 15597-B1)—a surrogate for norovirus—were used in the present study (Richards, 2012). Preparation of bacteria inoculum was done in accordance with AOAC International Official Method 920.09 and preparation of the

flatware rests as a preventive control for microbial cross-contamination from surfaces. Therefore, the primary objective of this study was to evaluate the efficacy of flatware rests for the prevention of microbial

be clean by visual assessment were contaminated with microorganisms (Sharp & Walker, 2003; Tebbutt, Bell, & Aislabie, 2007). It has been indicated that pathogens can multiply on these surfaces and even after drying, some microorganisms can remain viable for weeks, resulting in cross-contamination of foods (Holtby, Tebbutt, Grunert, Lyle, & Stenson, 1997; Wilks, Michels, & Keevil, 2005). Even restaurant menus can become contaminated with pathogens and should be sanitized regularly to prevent the transmission of foodborne pathogens (Sirsat, Choi, Almanza, & Neal, 2013). Furthermore, as previously mentioned, cleaning tools such as towels and cloths can become the source of contamination. Two primary factors should be considered when determining the risk of foodborne disease associated with cross-contamination: 1) level of contamination on the surfaces and 2) prospect of the transfer of contamination to the food and ultimately, to the consumer (Bloomfield & Scott, 1997).

In a study conducted by Sirsat and coauthors (2013), researchers sampled surfaces of restaurant menus and concluded that there was 1 to 2 $\log_{10}$ CFU/cm^2 of aerobic microorganisms present on the laminated menus. Another investigation focusing on the microbial load of surfaces within communal kitchens revealed an average of 1.0 x 10^3 to 4.3 x 10^7 CFU/mL of total coliforms depending on the surface type and location (Sharp & Walker, 2003). During an investigation of microbial loads on food contact surfaces in schools, Illés and coauthors (2018) found that 70.3% of kitchen tables presented unsatisfactory (>2.40 $\log_{10}$ CFU/100 cm^2) mesophilic aerobic bacterial counts with a mean of 3.49 $\log_{10}$ CFU/100 cm^2.

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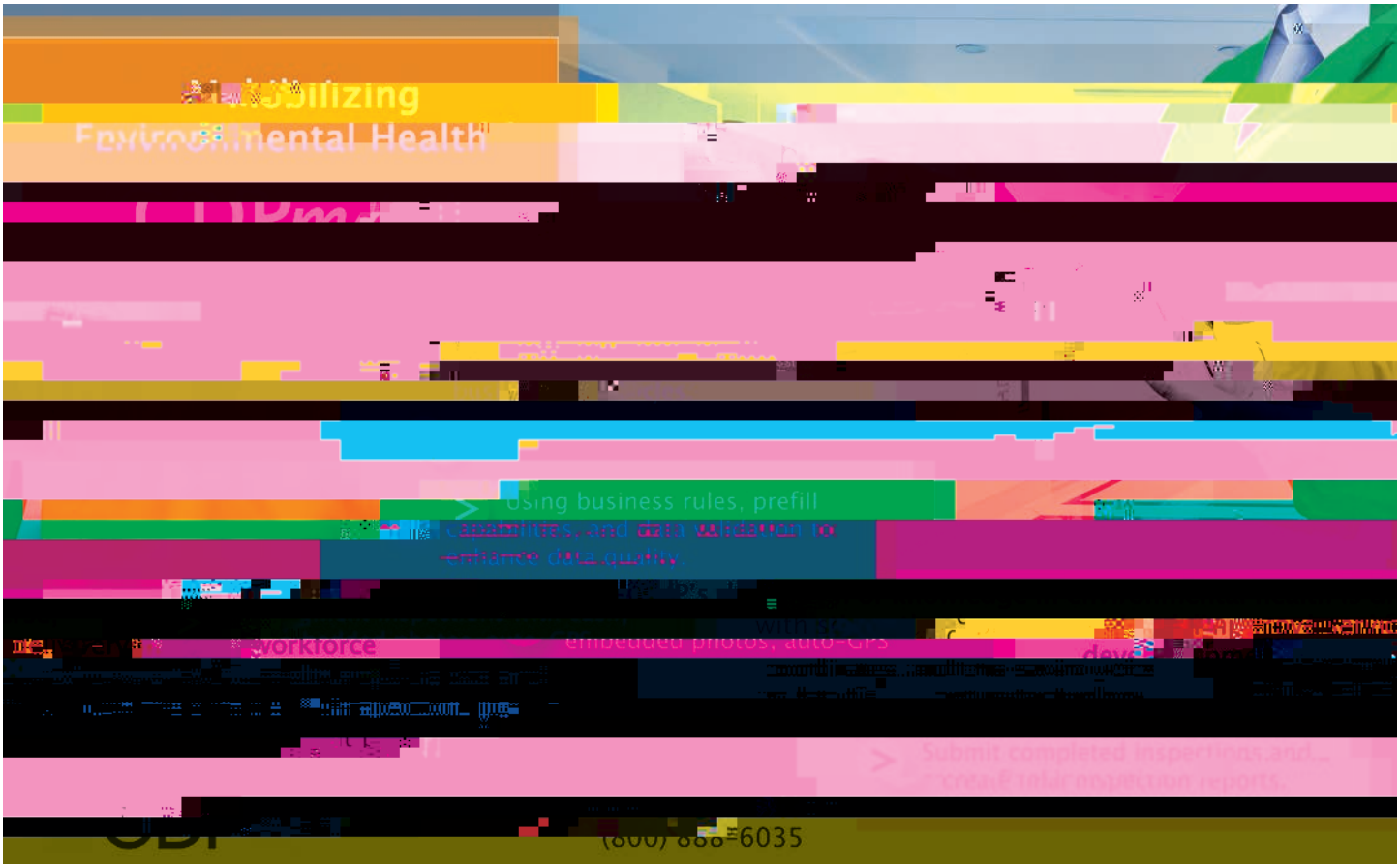
While none of the aforementioned studies report on pathogens recovered from kitchens and FSEs, it is important to note the recovered microbial load in relation to the infectious dose of common foodborne pathogens. Human enteric viruses such as norovirus cause the most foodborne-related illnesses worldwide due to their ease of transmission and low infectious dose (Siebenga et al., 2009). The ingestion of as few as 18 to 1,000 viral particles on average can lead to illness (Kambhampati, Koopmans, & Lopman, 2015).

Another important group of pathogens, nontyphoidal salmonellae, are responsible

ing further evidence that chlorine remains the most effective sanitizer for the inactivation of norovirus (Kinglsey et al., 2014). Another study, conducted by Feliciano and coauthors (2012), determined that quaternary ammo-



Amid the rapid expansion of global air traffic, aviation food safety is a critical issue (Huizer, Swaan, Leitmeyer, & Timen, 2015). More than 1 billion in-flight meals are served annually (Jones, 2006) and the aviation catering market is expected to be worth $18 billion by 2021 ("Global $18 billion in-flight catering services market," 2017). Food served on planes is prepared in industrial kitchens close to airports and then transported to planes where it is stored, reheated, and served. The process is complex, with many opportunities for food contamination. Although food preparation on the ground is subject to considerable regulation at both the national and international level, similar rules do not apply to food served in-flight. Airline caterers might need to comply with local food safety regulations, those of the country of the aircraft registration, those of the destination country, and international food safety guidelines (Solar, 2019). While there are greater challenges to ensuring in-flight food safety, we argue that the same food safety principles used in establishments "on-ground" should be applied to in-flight food services. This guest commentary considers one key factor of in-flight food hygiene: the availability of hand washing facilities for cabin crew.

Food safety regulations are public health measures designed to prevent the spread of disease. Foodborne illness is a widespread and costly—yet preventable—public health problem (Centers for Disease Control and Prevention, 2018) that can arise in-flight because of the complexity of the food service environment and the confined conditions (Hatakka, 2000). Sheward (2008) sees cabin crews as the missing link in the food handler chain. Yet the nature of the onboard workspace and absence of legislative enforcement hamper adequate crew hygiene and food safety behaviors.

Maintenance of a consistently high food safety standard is ever more important, particularly on ultra-long-haul flights (i.e., flight operations that regularly exceed 16 hr of planned flight time [Flight Safety Foundation, 2005]), where increased handling of food over an extended period of time brings ever more opportunity for food safety lapses. Poor food safety management and foodborne illness in-flight can become a flight safety issue by incapacitating pilots or cabin crew, rendering them unfit to fly (McMullan et al., 2007; Mitchell & Evans, 2004). Additional pressures come from the fact that passengers and crew disperse rapidly after flights and any illnesses they suffer would be difficult to track (Aiello & Larson, 2002).

Hand washing has long been considered a basic public health measure (Foddai, Grant, & Dean, 2016). During a flight, cabin crew frequently handle food while simultaneously completing multiple tasks. While contaminated hands play a key role in foodborne illness incidents (Curtis & Cairncross, 2003), access to clean toilets and hand hygiene serve as primary barriers to reduce the risk of transmission of pathogens that cause foodborne disease (Aiello & Larson, 2002). Most national legislation requires compliance with food safety protocols and dictates that hand washing facilities should always be provided to food handlers in proximity to their workspace.

Staff toilets and hand washing facilities are mandated in on-ground food establishments (Food and Drug Administration, 2018; Food Standards Agency, 2018). Although aircraft kitchens usually have sinks, they are mostly inadequate due to limited space and the common use of spring-loaded faucets, which require

sinks for adequate hand washing. Even more remarkable, there is no legal requirement for aircraft to have installed toilets.

The context of aviation food has changed. New dynamics in air travel such as extended flight times and increasing passenger loads pro

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Editor's Note: **A need exists within environmental health agencies to increase their capacity to perform in an environment of diminishing resources. With limited resources and increasing demands, we need to seek new approaches to the business of environmental health. Acutely aware of these challenges, NEHA has initiated a partnership with Accela called Building Capacity—a joint effort to educate, reinforce, and build upon successes within the profession using technology to improve efficiency and extend the impact of environmental health agencies.**

The *Journal* is pleased to publish this column from Accela that will provide readers with insight into the Building Capacity initiative, as well as be a conduit for fostering the capacity building of environmental health agencies across the country. The conclusions of this column are those of the author(s) and do not necessarily represent the views of NEHA.

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Introduction

- G : "Alexa, ask my health department for its address."
  : "The XYZ health department is located at 123 North Main Street and is open weekdays from 9:00 a.m. to 5:00 p.m."
- G : "Alexa, ask my health department for a food safety tip."
  : "Surfaces should be washed with hot soapy water. A solution of 1 tablespoon of unscented liquid chlorine bleach per gallon of water can be used to sanitize surfaces." (Source: U.S. Department of Agriculture, www.choosemyplate.gov/ten-tips-be-food-safe.)

Other ideas (not implemented) included an inspector reviewing prior violations on the way to an inspection, a food safety self-audit survey for operators, and voice-based consumer complaints.

One can appreciate how a small demonstration project like this one can potentially help renew interest in the health department's mission—it gives health department inspectors and restaurant staff a relaxed way to start a conversation that ends in a meaningful message and awareness. It's also fun and brings the spotlight back around to your department and your passion.

Elements of a Voice-First Demonstration Project

Select a Platform (or Platforms)

The path forward is different for each of the three major platforms: Apple, Google, and Amazon. In our project, we considered which platform had the most users and was easy to approach.

We selected the Amazon Echo for its market penetration and its enthusiasm for businesses, governments, and hobbyists building additional capabilities like ours. See the Resources sidebar to begin your project journey.

Catalog Available Data Sources

There exists a plethora of public facing sources of inspection data. For our project, we selected a local health department with publicly available inspection history, violations, and ratings. We avoided the permissions issue by beginning with open data.

For your project, first check with your information technology (IT) department or software vendor and ask how your data could be made visible to devices like Amazon Echo.

Build, Market, Evaluate, Iterate

The build required some programming, trial, and error. Thankfully, the Internet provides a universe of tutorials and examples. Still, it is a task oriented towards the aspiring or working programmer as the final result required some JavaScript programming (although other languages are supported).

Before you release your project to the outside world, you'll have ample opportunity to test it with your own device. This testing is what we did at the NEHA 2019 AEC.

When you are confident of its usability, there's just one more step to make the skill visible to the outside world and to launch your marketing campaign. You need to complete a short checklist of best practices. Publish a YouTube video showing how it works. Who knows, it might go viral!

As we advanced our project, we found more and more ways to add capabilities. Repeating food safety tips was not among our first goals. As we followed tutorials, we got excited to see the possibilities for public health advocacy.

state, and local health professionals with experience in communities affected by environmental contamination recognize stress as a challenge. ATSDR's efforts to address this issue date back to a 1995 expert panel on the psychological effects of hazardous substances (Agency for Toxic Substances and Disease Registry [ATSDR], 1995). Following the expert panel, ATSDR established a community stress team that worked directly with communities to develop public health strategies to mitigate community stress from 1998–2002. The team also delivered trainings on stress and contamination for public health and environmental professionals, and in some communities, for local psychologists, healthcare providers, and social workers.

More recently, public health agencies, including ATSDR, have developed stress-focused materials for affected community members. These materials acknowledge stress and worry related to environmental contamination, validate these feelings as normal responses, offer ideas for coping, and point to helpful resources (ATSDR, 2017a; County of Los Angeles Public Health, 2018, Multnomah County, 2016). ATSDR also developed tips for health professionals to review before addressing this topic with community members (ATSDR, 2017b) and has provided awareness-level training for public health and environmental professionals (U.S. Environmental Protection Agency, 2018). ATSDR's fact sheet (in English and Spanish) and tips sheet are available at www.atsdr.cdc.gov/factsheets.html under the Stress and Environmental Contamination section.

Currently, ATSDR is taking a fresh look at psychosocial stress related to environmental contamination, with a focus on per- and polyfluoroalkyl substances (PFAS) in drinking water. This community-engaged project might enhance knowledge and understanding of PFAS contamination-related stressors, informing new tools, resources, and strategies to reduce stress and build resilience in affected communities.

The project includes the following activities:

- : A systematic literature review on the intersection of chronic environmental contamination, psychosocial health, and community resilience will inform other activities and be presented in a peer-reviewed manuscript and an online webinar.
- : We conducted nine key informant interviews with community leaders and state health officials to learn more about how communities experience and cope with PFAS contamination events. While not a nationally representative picture of community responses to PFAS contamination, the interviews helped put community voices at the center of the project.
- : We will revise and develop new educational materials on environmental contamination, stress, and community resilience for health professionals and affected community members based on the literature review and community experiences. The materials will be designed for and tested with health professionals and people living in PFAS-affected communities.
- : We will develop a toolkit for state and local health organizations with practical, evidence-based public health strategies for implementing stress resilience interventions in communities facing environmental contamination.
- : A stakeholder group with community leaders, health professionals, disaster mental health experts, and others will provide input on toolkit content and implementation.

ATSDR looks forward to engaging community members and public health partner organizations in this work. Contact Ben Gerhardstein at bgerhardstein@cdc.gov to learn more.

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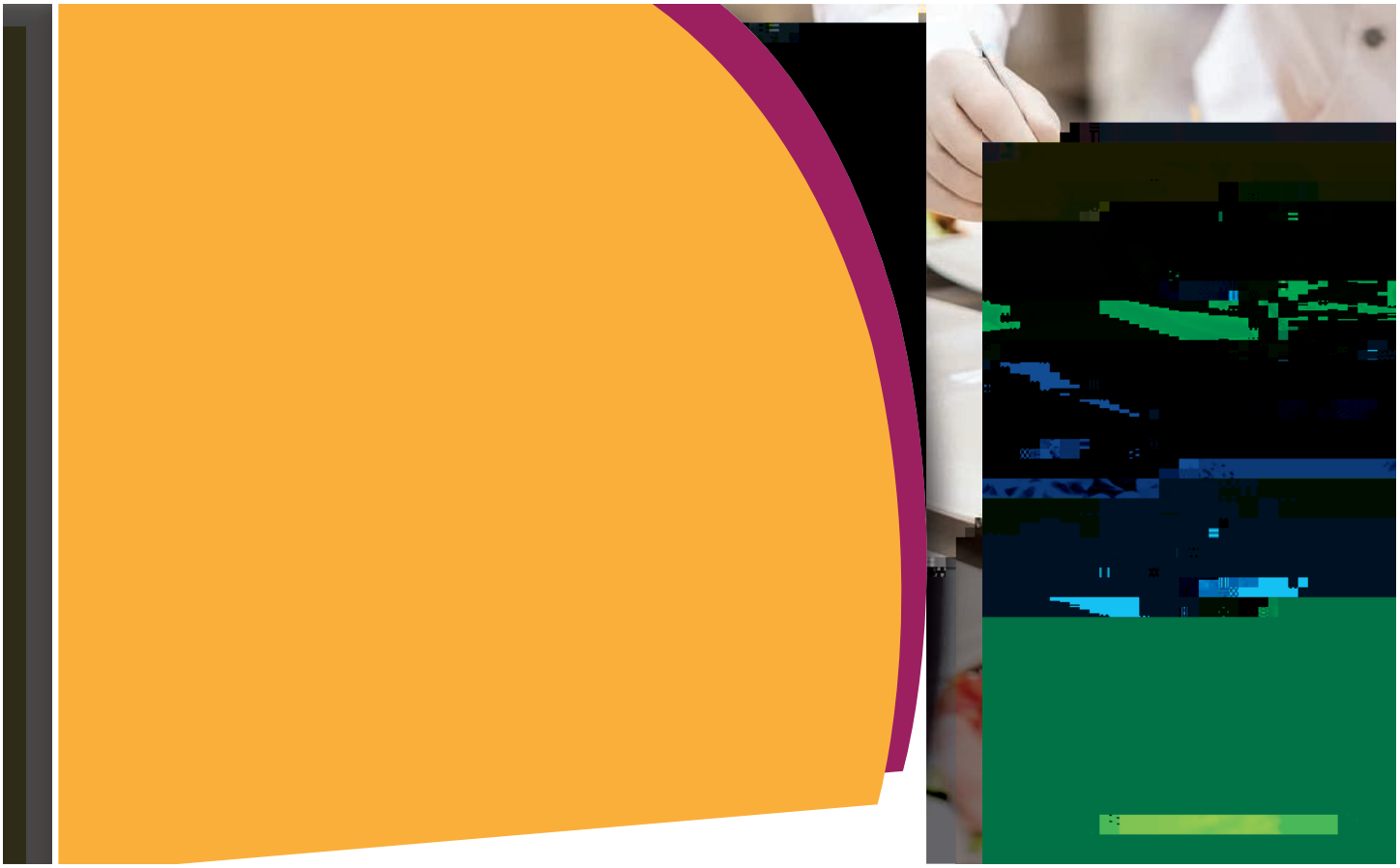


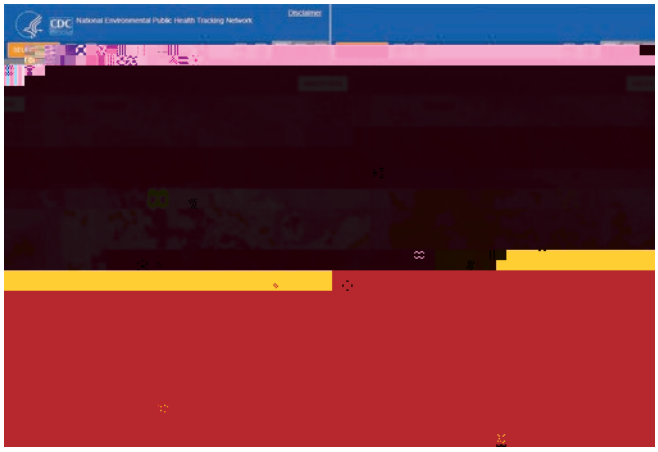
As an environmental health professional, you undoubtedly spend a lot of time communicating. Do people you're communicating with understand your main message? Putting your main message first, supporting it visually, and keeping your audience in mind can help you improve your department's communications to the public and other audiences.

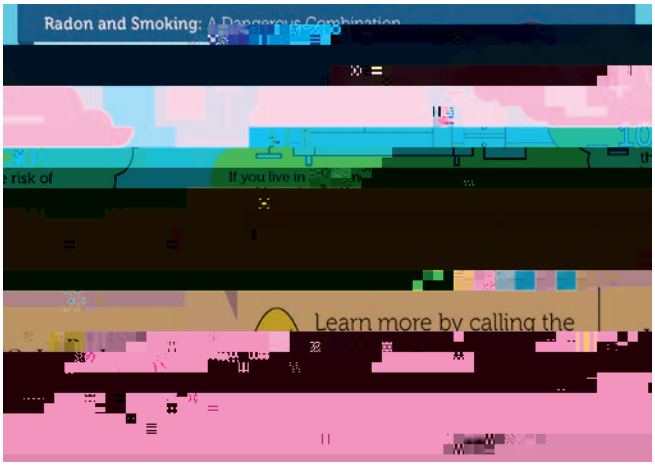
Put the Most Important Message First

FIGURE 1

FIGURE

FIGURE





Radon Communication Toolkit can be used to increase awareness of the dangers of radon exposure and smoking. The toolkit was built on materials developed by eight states. These states used Tracking data to bring awareness to the health hazards of radon and smoking through visualization, targeted communication messages, and Radon Awareness Month outreach. CDC tested the draft toolkit with several states and learned that a customizable format would increase the toolkit's use and value.

We designed the toolkit with environmental public health professionals and health educators in mind. It helps them

- create a framework for targeted communication activities and
- focus messages for specific audiences.

The toolkit includes a fact sheet, press release, shareable images, infographics, and social media content—all in one place. The materials can be used as is or customized for specific audiences. Users can add quotes, change regional information, update contact information, and use alternate main messages or branding to highlight a particular radon awareness event (Figure 4). State health departments can use the toolkit to develop statewide radon initiatives, organize local community events, or build social media campaigns.

Students will be selected to present a 20-minute platform presentation and poster at the National Environmental Health Association's Annual Educational Conference & Exhibition in New York City, New York, July 13–16, 2020.

to

Dr. Clint Pinion
Eastern Kentucky University
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For additional information and research submission guidelines, please visit www.aehap.org/aehap-src-scholarship-and-nsf-internships.html.

AEHAP gratefully acknowledges the volunteer efforts of

EH CALENDAR

UPCOMING NEHA CONFERENCES

J 13 16, 2020: NEHA 2020 A t E t G & E , New York City, NY. For more information, visit www.neha.org/aec.

J 12 15, 2021: NEHA 2021 A t E t G & E , Spokane, WA.

NEHA AFFILIATE AND REGIONAL LISTINGS

Georgia

M 27 29, 2020: A t E t G , hosted by the Georgia Environmental Health Association, Lake Lanier Islands, GA. For more information, visit www.geha-online.org.

Illinois

N b 4 5, 2019: A t E t G , hosted by the Illinois Environmental Health Association, Utica, IL. For more information, visit www.iehaonline.org.

Michigan

M 18 20, 2020: A t E t G , hosted by the Michigan Environmental Health Association, Traverse City, MI. For more information, visit www.meha.net/AEC.

Missouri

A 7 10, 2020: A t E t G , hosted by the Missouri Environmental Health Association, Springfield, MO. For more information, visit https://mehamo.org.

Utah

M 6 8, 2020: G , hosted by the Utah Environmental Health Association, Kanab, UT. For more information, visit www.ueha.org.

TOPICAL LISTINGS

Emergency Response

N b 10 15, 2019: E H E O , held by the Federal Emergency Management Agency's Center for Domestic Preparedness, Anniston, AL. For more information, visit https://cdp.dhs.gov/find-training/course/PER-309.

J t 26 31, 2020: E H E O , held by the Federal Emergency Management Agency's Center for Domestic Preparedness, Anniston, AL. For more information, visit https://cdp.dhs.gov/find-training/course/PER-309.

Food Safety

M 9 12, 2020: I F b O b M (I FO M) 2020 G , Atlanta, GA. For more information, visit www.aphl.org/conferences/InformConf/Pages/default.aspx.

Public Health

A 7 8, 2020: I G ' G P b H , Des Moines, IA. For more information, visit www.ieha.net/IGCPH.

CAREER OPPORTUNITIES

Food Safety Inspector

UL Everclean is a leader in retail inspections. We offer opportunities across the country. We currently have openings for trained professionals to conduct audits in restaurants and grocery stores. Past or current food safety inspection experience is required.

If you are interested in an opportunity near you, please send your resume to Attn: Garrison Ford at Garrison.Ford@ul.com or visit our website

Albuquerque, NM

Amarillo, TX

Billings, MT

Birmingham, AL

RESOURCE CORNER

Resource Corner highlights different resources the National Environmental Health Association (NEHA) has available to meet your education and training needs. These timely resources provide you with information and knowledge to advance your professional development. Visit NEHA's online Bookstore for additional information about these and many other pertinent resources!

SPECIAL LISTING

National Officers

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Immediate Past-President—Vince Radke, MPH, RS, CP-FS, DLAAS, CPH, Environmental Health Specialist, Atlanta, GA.
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continued on page 52

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2020 Award

The Walter S. Mangold Award recognizes an individual for extraordinary achievement in environmental health. Since 1956, this award acknowledges the brightest and best in the profession. NEHA is currently accepting nominations for this award by an affiliate in good standing or by any five NEHA members, regardless of their affiliation.

The Mangold is NEHA's most prestigious award and while it recognizes an individual, it also honors

Call for Nominations

By Angelica Ledezma (aledezma@neha.org)

The National Environmental Health Association (NEHA) is governed by a board of directors who oversee the affairs of the association. There will be four board positions up for election in 2020:

- Region 1 vice-president (represents Alaska, Idaho, Oregon, and Washington; 3-year term);
- Region 5 vice-president (represents Arkansas, Kansas, Louisiana, Missouri, New Mexico, Oklahoma, and Texas; 3-year term);
- Region 7 vice-president (represents Alabama, Florida, Georgia, Mississippi, North Carolina, South Carolina, and Tennessee; 3-year term); and
- second vice-president (national officer; 5-year term that progresses through the national offices and will serve as NEHA president in 2023–2024).

We seek diversity on the board in terms of gender and ethnicity, as well as a balance between regulatory, academia, and industry professionals. Most importantly, we want people who will help us develop a new strategic vision, have experience managing diverse organizations, and can open doors for NEHA in building relationships with industry, academia, federal and state agencies, foundations, and other associations.

Requirements to serve on the board include

- membership with NEHA (individual or life) for three consecutive years prior to assuming office on July 16, 2020;
- not simultaneously holding a voting position on the board of a NEHA affiliate;
- endorsement by at least five voting NEHA members (from members residing in the region for regional vice-president candidates and from members residing in at least three different regions for second vice-president candidates); and
- willingness to commit the time necessary to actively serve on the board.

If you are interested in serving on our board of directors, please visit www.neha.org/about-neha/governance/elections for information on the nomination and election process. You can also contact NEHA Immediate Past-President Vince Radke, chairman of NEHA's Nominations Committee, at immediatepastpresident@neha.org. The deadline to submit a nomination is D b 2, 2019.

NEHA Staff Profiles

As part of tradition, NEHA features w st members in the *Journal* around the time of their 1-year niversa . These profiles gi you an opportunity to get to kno the NE A staff better a to learn more about the great progra s and tivities goin on in your association. This month we

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NEHA NEWS

Environmental Law Institute's Emerging Leaders Initiative, and am a member of the National Recreation and Park Association's Climate and Health Advisory Panel. Outside of work, I enjoy time with my family and dabble in photography and graphic design.

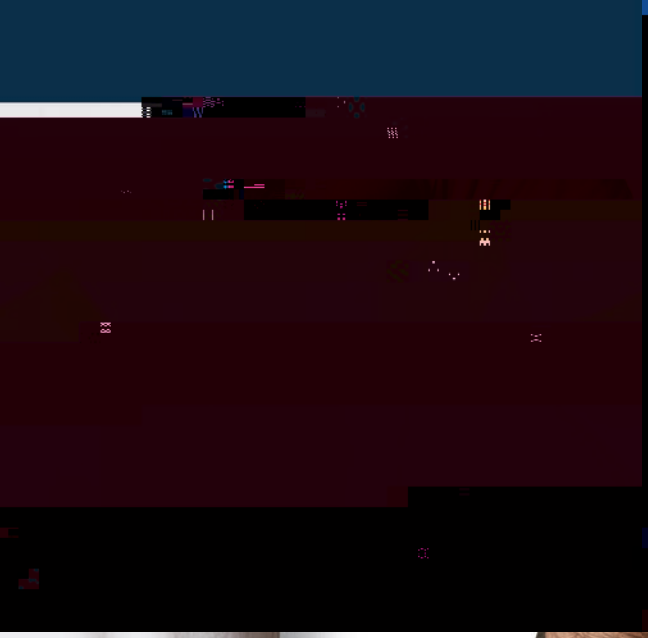
Since becoming a NEHA member in 2015, NEHA's members, staff, programs, and activities have inspired me and afforded me opportunities to become a stronger environmental health professional. Because of that, I am all the more grateful to serve NEHA through my position.

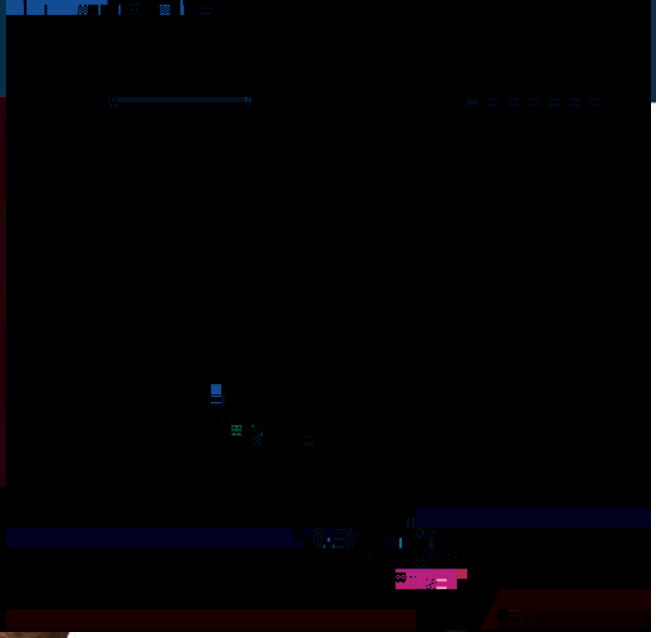
Joyce Dieterly

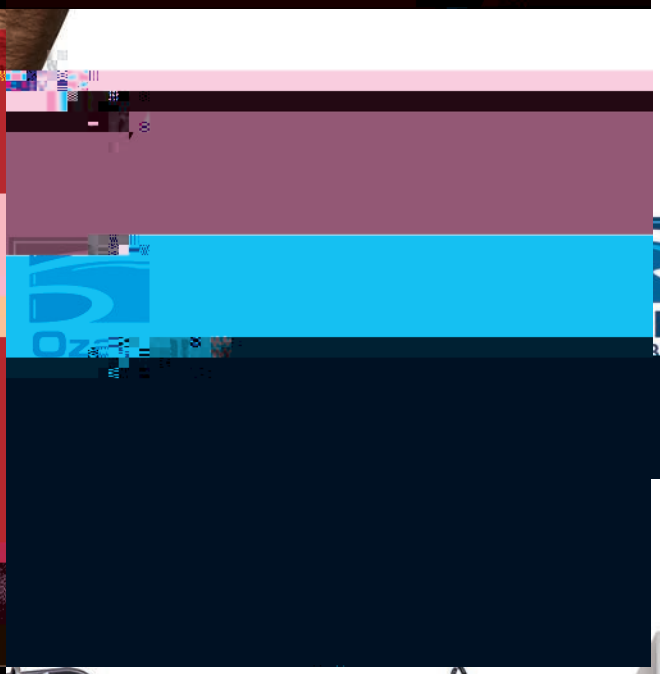
I began working at NEHA in November 2018 when I was hired on as evaluation coordinator. My role centers around assessing and strengthening the quality and impact of NEHA's work. This past year I have conducted program evaluation on funded projects supporting hurricane preparedness, response, and recovery. After serving as a Peace Corps volunteer in Mozambique, I discovered a passion for public health, went back to school, and received my Master of Public Health from Washington University in St. Louis, Missouri. Though it was through on-the-job learning, I found that evaluation allowed me to work with data while telling a story about the long-lasting impacts of public and environmental health programs.

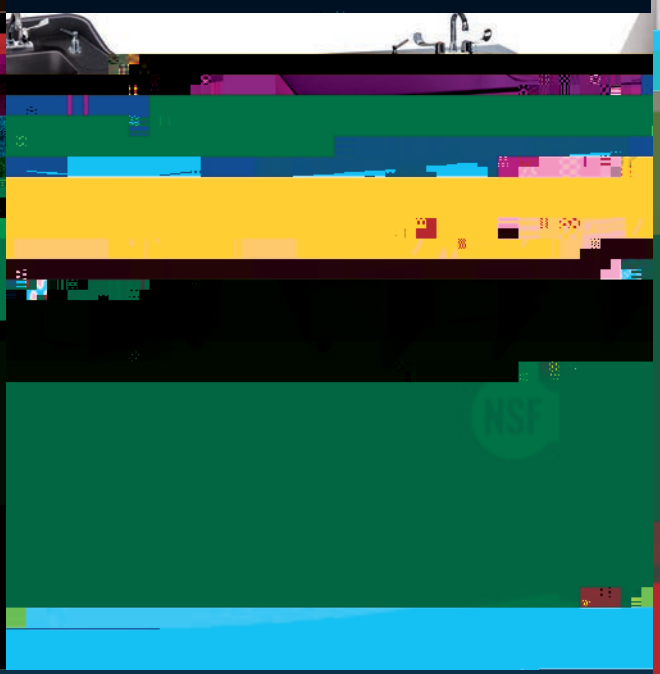
I was able to continue learning from evaluation experts during my time as an Oak Ridge Institute for Science and Education (ORISE) fellow at the Centers for Disease Control and Prevention in Atlanta, Georgia, working with national heart disease and stroke prevention programs. After about 2 years, I made the move to Denver to begin working at NEHA and have enjoyed the opportunity to discover exciting things the area has to offer, including taking my dog out on the trails that run through the city.

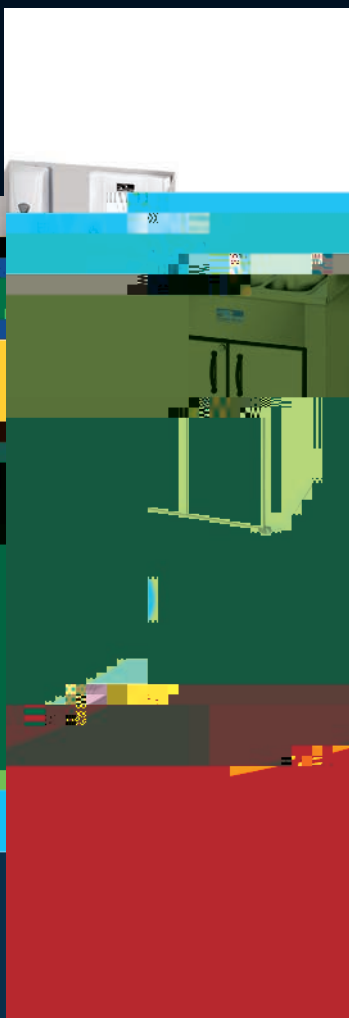
As I am approaching 1 year with NEHA, I am looking forward to finding ways we can continually improve, as well as work with internal and external partners to build evaluation capacity across the association. I am excited to apply my evaluation expertise to the field of environmental health and ensure that the work we are doing is beneficial, useful, and impactful.











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