

Notes from the NEHA annual conference- attended virtually July 31- Aug 3 2023 Jennifer Heller

Session : Climate Change and Environmental Public Health – Research, Strategies and Tools for Practitioners- Speakers were Megan Christian of the EPA, Andy Miller of the EPA and Tom Luben of the EPA

The US will spend 100 billion over 10 years to reduce climate change.

Vector disease is expanding due to the warmer temperatures. Intervention, immediate prevention needed at community levels, and a transformation of energy systems.

“ICSD” – Integrated Climate Sciences Division – social physical ecological and engineering

Wildfires- number about the same but the size of wildfires is increasing, has doubled since 2017

Smoke- the particulate matter below 2.5pm is smaller than pollen and the driver of the Air Quality Index. Smoke can exacerbate asthma, bronchitis, pneumonia, cardiovascular diseases and has respiratory impacts. Crowd sourced low cost air sensors could aid in the supplementation of hard data. Purple air, Wsmart loan monitors? The Boxfan with taped filters on the side has been tested and does help reduce interior PM. There is a research study called “Smokesense” Smoke contains benzolpyrene emissions (spelling may not be accurate- sorry)

The amount of green space in neighborhoods affects the temperatures on the ground.

“Redlined” areas were established in the 1930’2-1940’s to determine areas that were poor risks for mortgage loans. These are still used.

Flooded homes website on the EPA site is available.

Quote from the Environmental Services in Action at Superbowl LVII- Marissa Munoz, and Clay Callaway Maricopa County Environmental Services:

“Large events spawn multiple events within them”

Massachusetts Environmental Health Ambassador Program; Promoting a Career in Environmental Health. Speakers Patrick Maloney Massachusetts Environmental Health Association, and Steven Ward, Town of Ashland

Send EH ambassadors to High Schools, Colleges with Public Health, Community Colleges.

Only 6% of the students in public health are pursuing EH concentrations.

MEHA offers 1st year membership for students FREE

MAEHA.org is their website

The Conundrum of Food Safety Culture; Breaking through Barriers to Drive Improvement. Speakers; Dave Dyjack, NEHA President, Courtney LaVallee Chick-A-Fil, Inc, Bob Steward, McDonald's and Cheli Breaux of Topgolf panel discussion

Steward- Small and big wins are both important. McD has 1.2 million employees. 5 core values. Does mock disaster trainings. Empowers teams to make decisions, wants agile/cross functions. A food safety incident impacts all of us. Artificial Intelligence/Robotics used due to staff shortages. AI framed as an enabler, not a replacement. Consumers want human engagement.

LaVallee- Feedback makes Chick-a-fil better, it improves them. Has a "Health in all" policy. Does quarterly assessments like a credit report has a best practices tool kit with 3rd

Topgolf- gives color flags for food safety. Offers "one shield" kitchen training- one team approach, KPI's (Key performance Indicators) relevant, actionable, consistent but may vary in areas. "touchpoints – messages changed seasonally. If technology takes out steps or decisions, they will use it but balance it

Disinformation travels faster than truth

Food Safety is getting digitalized – toe in water with Artificial Intelligence...

Climate and Health in the Southeastern United States: reflections on post-Katrina regional impacts on New Orleans as a harbinger of adaptation and mitigation challenges ahead. Speakers; Wilson Justin of ANTHC and Dr. Steve Konkel of U of Alaska and Konkel and Associates, Dr Barry Keim, professor Chair of Geography and Anthropology at LSU.

Katrina was responsible for \$125 billion in damages

Dr. Keim- 125 year warmest Jan-June since 1895. Rainfall 1 inch a week normal, this year ½ normal, drought. Late 50's to 70's a cooling period in SE US. 18 hurricanes predicted. 2019 the population in coastal counties in Florida is 6,715,890 people. LA is 1,551,317 TX is 6,711,202 for a total of 16,014,182 in AL, MS, LA, TX and FL.

IN 1920-1930 8 hurricanes hammered those areas. IN the 60's FL got hammered and in the 90's the Carolinas in 2004-2005 Florida and others had Katrina and Rita hurricanes. These were driven by the Atlantic AMO. If a higher AMO then more hurricanes. Surgedat is a database on hurricane surges.

Katrina surge was 28' Camille was 24' Five of the top ten surges have occurred since 2005. Bangladesh had a 44.9' surge.

In one area in the US the water came up 12' in 30 minutes.

Dam safety – there's been a study done on maximum precipitation for dam failures.

If hurricane Harvey had been over New Orleans it would have produced 49.83" in 5 days. Massive floods

Hurricane season is starting 11 days earlier per decade, and lasting 5 days longer.

Rain bursts are occurring more frequently, where they are shorter but more rainfall than before.

Coastal ecology is changing to tropical from temperate. Milder temps. The temps are changing across the US, Minimum temps are getting higher the highs are not changing, but it doesn't cool down like it used to.

Climate change impact on growing threats of vector borne disease- speaker Paul Chinowsky, resilient analytics inc.

The incidence of Lyme Disease is affected by temps and is increasing. The healthcare will cost 100's of millions .

West Nile is cyclical, with precipitation and temperatures.

The average temperature at night is now 75 degrees, will foster West Nile. The nonneuroinvasive affects about 96.7% the invasive has high mortality rates. IF there is a small drought and then rain, transmission skyrockets. Climate change will significantly affect vectors, exponentially.

Evaluating and improving Food Safety at Temporary Events – Joseph Addison, DPH

Reviewed inspection forms for 95 inspectors over 5 years found that out of 152 inspections, half were scored as 100's. 790 violations noted; handwashing 72, non-food 50, Food contact surfaces 60, hot holding and contamination 54. 35 inspectors only gave 100's never any less, they were removed from sample set.

The set up required in his jurisdiction for tents is full enclosed 4 walls with openings for food distribution and ordering that can be closed.

A handout was made for vendors with pictures on what was required and they had to sign the form to indicate they received and read this form.

All new inspectors were accompanied on inspections by veteran inspectors. No permits issued before an inspection.

Compliance 2.0 catching Food Establishments doing something right. Speakers Mark Parker of Sanswrite, Compliance monitoring software

Recognize and point out what the food establishment is doing "right". Be specific. The software he offers is designed to keep Food establishments thinking all year. IT is all electronic. Paper is now worthless. Data analytics target tech assistance and measure.

During inspection- establish a baseline, focus on capturing high quality data, consistent data. There are no "corrected onsite" options, the violation remains visible.

Root cause analysis and plan for improvement go beyond immediate action.

Evidence of ongoing Compliance- could have the violator submit information electronically

Mediation of thought- address the root cause of the violation, why do you think this happened? What is the underlying cause.

Data visualization in charts etc.

Emergency Preparedness with Lt. General Russel Honore- Katrina responder ARMY

Lessons learned from Katrina- See his book "Survival"

Where do the poor, elderly and disabled live in your community? They are the vulnerable populations. 90% of those who died in Katrina lived alone and were elderly and poor.

Katrina took out the water, sewer, and power. Nursing homes were vulnerable.

Media- if you don't put out something, they will find someone who will talk.

Never blame victims or survivors.

Pet Act was passed after Katrina when people would not leave their animals behind.

You are never prepared for a disaster, if you are prepared, it is not a disaster, it is an inconvenience.

Need a system in place to help evacuate, send people to hotels. Shelters are survival centers, minimal.

IDA took out the grid – FirstNet did not work.

You can get a satellite app on your phone – you are charged only when you use it.

Your audio and video news that you put out has to match. Do media announcements outside at the scene so it reflects what's really going on, don't do these indoors. Keep the reporters uncomfortable.

Schools stayed open in New Orleans because of a Saint's game even though everyone knew that huge storm was coming. Evacuation was slowed as people left the next day instead of when they should have on the Friday.

Ignorance can be fixed but stupidity is set

Every year more people move closer to water. 42% live within 20 miles of the ocean, the Mississippi and the Great Lakes. Check your home front step elevations and then check the road and the railroad. If you are lower, you will float. You are living where the bears and birds live.

Pre-plan to work with volunteers. More people are saved by volunteers than the Army and National Guard.

The Governor has no authority on water or air

Creating Safer, Smarter and more transparent Food Systems – Frank Yiannas of FY Smarter Solutions
(worked for Disney, Walmart and FDA)

A Food Safety Culture is what is desired. Now 1 out of 4 food dollars is spent at Walmart.

Just in time food supply chains are only good in good times, not in disasters.

We are not winning the battle on Foodborne disease. The numbers are about the same from 1996 as in 2021. Why? We have to do work differently. The rate of change has accelerated. There is a food revolution, more changes in 10 years than in the last 30 years. New foods, culture, gene-edited crops, new production methods, sensors, automation, RFID traceability, digitizing, whole genome sequencing, loyalty cards, reviews. All help in traceability.

Outbreaks- look at clusters, use loyalty cards for tracebacks, unreported food illnesses on YELP- monitoring reviews, Digital age, need to accelerate prevention. There is a global trust bust, trust is based on competency, integrity, social license.

There is no one reason why foodborne illness keeps occurring

outbreaks happen more from Produce than from cows. Need to become smarter, create more transparent food systems, focus on water(especially ag water), digitize, use big data, establish a food safety culture. Teach people this in a language that they understand.

Traceability – removes bad product from the marketplace. The FSMA compliance on this goes into effect in 2026 – See the FDA website.

Critical Tracking elements;

Ag Water- a new water standard is proposed- risk assessment of ag water, routes of mitigation

Better data- no paper, predictive analytics

Food Safety Culture – influence behavior, incentivize good behavior. It is a CHOICE there are tools to help