

**Agriculture, Fishing and Forestry:  
Injury Prevention in America's  
Most Dangerous Industries**

Julie Sorensen  
NEC Director  
39th Annual Scientific Meeting  
ICAHN School of Medicine | Mt. Sinai

NEC

---

---

---

---

---

---

---

---

**NIOSH AGRICULTURE, FORESTRY, FISHING CENTERS**

1. University of California  
2. Colorado State University  
3. University of Minnesota  
4. University of California, Davis  
5. University of Maryland  
6. University of Iowa  
7. University of Pennsylvania  
8. University of Wisconsin-Madison  
9. University of Wisconsin-Madison  
10. University of Wisconsin-Madison  
11. University of Wisconsin-Madison  
12. University of Wisconsin-Madison  
13. University of Wisconsin-Madison  
14. University of Wisconsin-Madison  
15. University of Wisconsin-Madison  
16. University of Wisconsin-Madison  
17. University of Wisconsin-Madison  
18. University of Wisconsin-Madison  
19. University of Wisconsin-Madison  
20. University of Wisconsin-Madison

CDC NIOSH  
Workplace  
SAFER  
HEALTHIER  
PRODUCTIVITY

Mt. Sinai | 11/20/2018

---

---

---

---

---

---

---

---

**NEC MISSION STATEMENT**

Number and rate of fatal occupational injuries to civilian workers by major occupation group, 2016

Major Occupation Group	Number of Fatal Injuries	Rate per 100,000 Full-time Equivalent Workers
Construction and extraction	1,044	10.4
Transportation and material moving	488	10.4
Manufacturing and construction	488	10.4
Healthcare and social assistance	488	10.4
Education and business operations	488	10.4
Other	488	10.4

“The mission of the Northeast Center (NEC) is to enhance the health of AFF workers by identifying priority health and safety issues and working with AFF communities and stakeholders to develop prevention solutions.”

Mt. Sinai | 11/20/2018

---

---

---

---


---

---

---

---

### MEETING THE MISSION



Prolonged engagement with communities

Intervention efforts that are culturally relevant

Solutions that are easy, cost-effective and rewarding

Heavily R2P focused

**The Public Health Model**

```

graph TD
    A[Define the problem] --> B[Identify risk and protective factors]
    B --> C[Develop and test prevention strategies]
    C --> D[Assure widespread adoption]
    
```

Mt. Sinai | 11/20/2018

---

---

---

---

---

---


---

---

---

---

### The Public Health Model



```

graph TD
    A[Define the problem] --> B[Identify risk and protective factors]
    B --> C[Develop and test prevention strategies]
    C --> D[Assure widespread adoption]
    
```

Mt. Sinai | 11/20/2018

---

---

---

---

---

---


---

---

---


---

### AFF TRAUMATIC INJURY DATA SURVEILLANCE



Enhancing the identification of AFF injuries:

- Expand scope of current NEC surveillance
- Include commercial fishing
- Refine search methodology for AFF injuries in existing datasets
  - Hospital Data
    - Emergency Department
    - Inpatient
    - Outpatient
    - Trauma
  - Pre-Hospital Care Reports (PCR)



<http://1.bp.blogspot.com/gtazPVWqps/Us0wQ3W8U/AAAAAAAAADU/9W1r225250U/158907m-eele-in-haystack.jpg>

Mt. Sinai | 11/20/2018

---

---

---

---

---

---

---

---

---

---

### INJURY SURVEILLANCE OF ME LOGGING WORKERS



Assessing worker health and occupational exposures for ME loggers:

- o Detailed quarterly surveys (either phone or computer/smartphone based)
- o One-time health screening
  - Traumatic Injury
  - Chronic Injury & Illness
  - Overall Health



Mt. Sinai | 11/20/2018

---

---

---

---

---

---

---

---

### WORKER HEALTH SCREENINGS



- Occupational Medicine Clinic
  - o Firefighter physicals
  - o Farmers' Clinic
  - o DOT Physicals
  - o Asbestos Physicals
- Hearing Conservation & Audiometric Testing
- Drug & Alcohol Testing
- Respiratory Protection Programs
  - o Farm Fit-Testing Program
- Blood Sampling (Heavy Metals)
- Ergonomic Consultations
- Wellness Screenings



Mt. Sinai | 11/20/2018

---

---

---

---

---

---

---

---

### STAND (STAKEHOLDERS TEAM-UP FOR ACTION IN NY DAIRY)



Toxic Stress in the Dairy Producer Community:

- Tariffs impacting bottom line
- Immigration creating labor shortages
- Dairy farms going out of business
- NEC organizing a Whole-System-in-the-Room Event-December of 2018
- Will develop short/long-term action steps to improve conditions




---

---

---

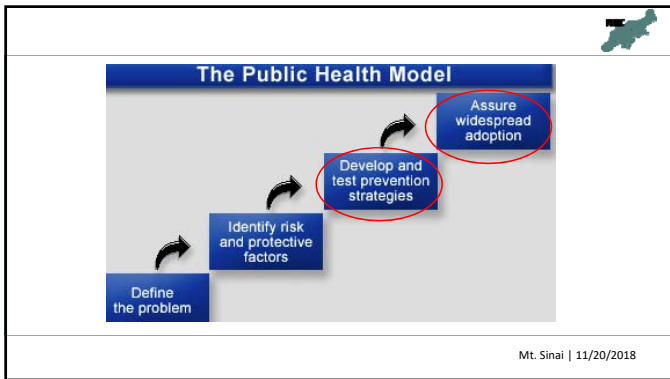
---

---

---

---

---



---

---

---

---

---

---

---

---

### AGRICULTURAL SAFETY TRAINING

- On-Farm Safety Surveys (Industrial Hygiene Site Assessments)
- On-Farm Safety Trainings
  - Workers (English & Spanish)
  - Employer
  - Agribusiness
- Farm Disaster Preparedness
- Hearing Protection Program
- Young Worker Tractor Certification
- Technical Assistance



Mt. Sinai | 11/20/2018

---

---

---

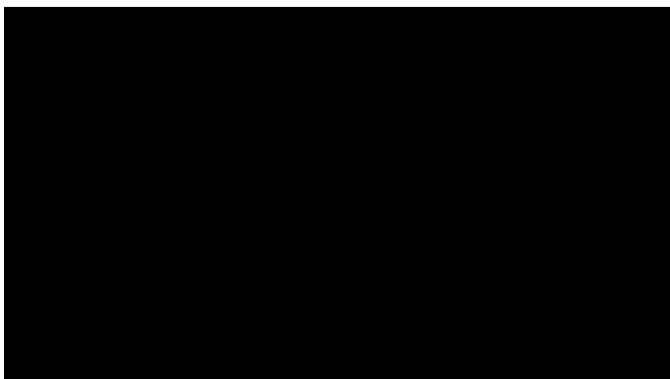
---

---

---

---

---



---

---

---

---

---

---

---

---

### FISHERIES AND LOGGING WORKER TRAININGS



<https://youtu.be/bgma2-iZ7Nw>



Mt. Sinai Selikoff Ctr | 3 28 18

---

---

---

---

---

---

---

---

### PERSONAL PROTECTIVE EQUIPMENT PROGRAM



- Respiratory Protection
- Hearing Protection
- Eye Protection
- Chemical Protection
- Heat & Sun Safety
- Logging Safety
- Power Take-Off (PTO) Shields
- Tractor Seatbelts
- SMV & Equipment Marking Kits

Personal Protective Equipment  
2018 PPE Catalog



New York State for Agricultural Medicine and Health  
To order call 800-345-7527

Mt. Sinai | 11/20/2018

---

---

---

---

---

---

---

---

### THE NATIONAL ROPS REBATE PROGRAM



Pilot Research  
2006

Statewide  
Program

PA, VT, NH  
Expansion  
2010-2011

Add MA,  
WI, MN,  
2013-16

APPLY NOW  
Select Your State

THE HEROES OF THE NATIONAL ROPS REBATE PROGRAM

ROGER'S STORY   GINNY'S STORY   BRANDEE'S STORY   RALPH'S STORY   WAYNE'S STORY   MIKE'S STORY

Mt. Sinai | 11/20/2018

---

---

---

---

---

---

---

---




---

---

---

---

---

---

---

---




---

---

---

---

---

---


---

---

**NY ROPS REBATE PROGRAM**

2018 Cost-Benefit Analysis:

- NY ROPS Rebate Program cost-benefit assessment indicates nearly \$5 million in savings due to injuries and fatalities prevented through the program
- 99% of farmers would recommend the program to other farmers



Mt. Sinai | 11/20/2018

---

---

---

---

---

---

---

---

### JOHN MAY FARM SAFETY FUND



[http://www.nycamb.org/assets/videos/DiamondHillsFarm4\\_3.webm](http://www.nycamb.org/assets/videos/DiamondHillsFarm4_3.webm)

Mt. Sinai | 11/20/2018

---

---

---

---

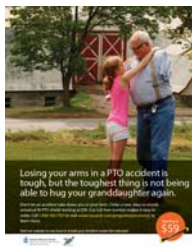
---

---

---

---

### POWER TAKE-OFF SHEILDING PROGRAM



Mt. Sinai | 11/20/2018

---

---

---

---

---

---

---

---

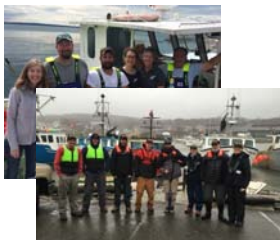
### INCREASING PFD USE IN LOBSTER FISHERIES



Falls overboard - the most frequent cause of death among NE Lobstermen

*Project Goals:*

1. Trial various PFD/lifejacket designs
2. Identify the popular designs
3. Increase PFD social desirability and access



Mt. Sinai | 11/20/2018

---

---

---

---

---

---

---

---

### REDUCING FISHING WINCH ENTANGLEMENTS



<https://vimeo.com/154893452>

Mt. Sinai | 11/20/2018

---

---

---

---

---

---

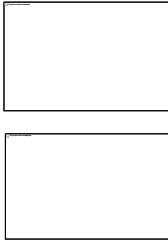
---

---

### PARTICIPATORY ERGONOMICS IN LOBSTERING



- Using CBPR to develop ergonomic
- Reduce the overall rates of musculoskeletal disorders
- Partnering with:
  - lobstermen
  - health and safety researchers
  - health professionals
  - lobstering industry personnel
  - other community stakeholders



Mt. Sinai | 11/20/2018

---

---

---

---

---

---

---

---

### COMMERCIAL FISHING SAFETY APPS



iTunes is the world's easiest way to organize and add to your digital media collection.

We are unable to find iTunes on your computer. To download the free app SCraMP for Leigh McCue, get iTunes NOW.

Always use iTunes StoreiTunes Store to get it here.

**Free Download**

**SCraMP**  
By Leigh McCue  
Open Store to see and download apps.

**Description**  
The Coastal Lobster Program (CLP) studies the world's most sustainable, profitable, and profitable fish. A collection of lobstering safety and education for lobstering operations. Watch also can be accessed at your preferred content source. Watch also is available at your preferred content source.

**What's New in Version 3.1.0**  
See What's New

[View on iTunes](#)

This app is designed for

Mt. Sinai | 11/20/2018

---

---

---

---

---

---

---

---



### AGRICULTURAL OUTREACH & PARTNERS

<p><b>Shows:</b></p> <ul style="list-style-type: none"> <li>• NY Farm Show</li> <li>• Empire Farm Days</li> <li>• Central NY Farm Progress Show</li> <li>• NOFA NY</li> <li>• Ag Progress Days (PA)</li> <li>• Dealer Days</li> <li>• Cornell Cooperative Extension Events</li> </ul>	<p><b>Organizations:</b></p> <ul style="list-style-type: none"> <li>• Farm Bureau</li> <li>• Future Farmers of America (FFA)</li> <li>• North East Dairy Producers Association (NEDPA)</li> <li>• Northeast Organic Farming Association (NOFA)</li> <li>• Cornell Cooperative Extension (CCE)</li> <li>• Plus many more...</li> </ul>
---	---

Mt. Sinai | 11/20/2018

---

---

---

---

---

---

---

---

---

---

### FORESTRY / FISHING OUTREACH & PARTNERS

<p><b>Forestry:</b></p> <ul style="list-style-type: none"> <li>• <u>Shows</u> <ul style="list-style-type: none"> <li>○ Northeastern Loggers' Expo (Maine &amp; Vermont)</li> <li>○ Woodmen's Field Days (Boonville, NY)</li> </ul> </li> <li>• <u>Organizations</u> <ul style="list-style-type: none"> <li>○ Bill Lindloff's ProCUTS</li> <li>○ Northeastern Loggers Association</li> <li>○ Professional Logging Contractors of Maine</li> <li>○ Certified Logging Professionals</li> </ul> </li> </ul>	<p><b>Commercial Fishing:</b></p> <ul style="list-style-type: none"> <li>• <u>Shows</u> <ul style="list-style-type: none"> <li>○ Maine Lobstermen's Forum</li> <li>○ Massachusetts Lobstermen's Forum</li> </ul> </li> <li>• <u>Organizations</u> <ul style="list-style-type: none"> <li>○ Fishing Partnership Support Service</li> <li>○ Coast Guard</li> <li>○ NOAA</li> <li>○ Maine Lobstermen's Assoc.</li> <li>○ Mass Lobstermen's Assoc.</li> <li>○ NIOSH Maritime</li> <li>○ Plus many more...</li> </ul> </li> </ul>
---	--

Mt. Sinai | 11/20/2018

---

---

---

---

---

---

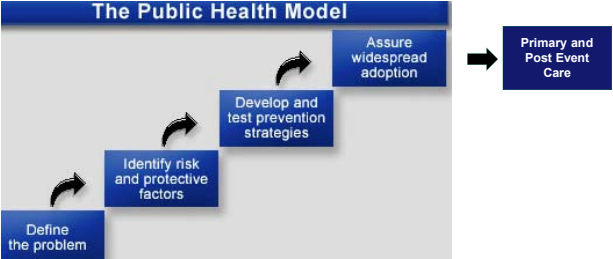
---

---

---

---

### The Public Health Model



```

graph LR
    A[Define the problem] --> B[Identify risk and protective factors]
    B --> C[Develop and test prevention strategies]
    C --> D[Assure widespread adoption]
    D --> E[Primary and Post Event Care]
    
```

Mt. Sinai | 11/20/2018

---

---

---

---

---

---

---

---

---

---

### OCCUPATIONAL HEALTHCARE



- Audiometry
- Vaccinations
- Vision Screening
- Blood Pressure
- Diabetes Screening
- Skin Cancer Screening
- Health Assessments

Mt. Sinai | 11/20/2018

---

---

---

---

---

---

---

---

---

---

### FARM PARTNERS



- Free and confidential counseling and case management for farmers
- Team approach: works with other farm human service agencies
- Provide assistance to disabled farmers with health care coverage and assistive technology
- 54% of cases involve physical health problems, disabling medical conditions or no health care coverage



The suicide rate for farmers is more than double that of veterans. **Former Farmer Debbie Weingarten** gives an insider's perspective on farmers' — and her — help.

\* As reported in The Guardian, Dec 6, 2017

Mt. Sinai | 11/20/2018

---

---

---

---

---

---

---

---

---

---

### AFF PREVENTION CHALLENGES



- Large region to serve
- Tremendous variation in industry size, operations, workforce
- AFF industries affected by globalization, fish stocks, labor shortages
- Cultural norms make interventions challenging
  - Risk is accepted
  - Independence is valued
  - Outside interference is viewed with suspicion



Mt. Sinai | 11/20/2018

---

---

---

---

---

---

---

---

---

---

### AFF LESSONS LEARNED



- Community integration is essential
- Look at issues from workers' perspective
- Consider translation and implementation early and often
- Benefits to communities must be demonstrated



Mt. Sinai | 11/20/2018

---

---

---

---

---

---

---

---

Thank you for your interest!



Questions?

Mt. Sinai | 11/20/2018

---

---

---

---

---

---

---

---