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

NIOSH AGRICULTURE, FORESTRY, FISHING CENTERS

NEC MISSION STATEMENT

"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."
MEETING THE MISSION

Prolonged engagement with communities

Intervention efforts that are culturally relevant

Solutions that are easy, cost-effective and rewarding

Heavily R2P focused

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)
Assessing worker health and occupational exposures for ME loggers:

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

WORKER HEALTH SCREENINGS

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

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
FISHERIES AND LOGGING WORKER TRAININGS

https://youtu.be/bgma2-iZ7Nw

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

THE NATIONAL ROPS REBATE PROGRAM

Pilot Research Program 2006
Statewide Program
PA, VT, NH Expansion 2010-2011
Add MA, NC, WI, MA, 2013-16
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
JOHN MAY FARM SAFETY FUND

http://www.nycamh.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

http://vimeo.com/148958572

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

COMMERCIAL FISHING SAFETY APPS
# Agricultural Outreach & Partners

**Shows:**
- NY Farm Show
- Empire Farm Days
- Central NY Farm Progress Show
- NOFA NY
- Ag Progress Days (PA)
- Dealer Days
- Cornell Cooperative Extension Events

**Organizations:**
- Farm Bureau
- Future Farmers of America (FFA)
- North East Dairy Producers Association (NEDPA)
- Northeast Organic Farming Association (NOFA)
- Cornell Cooperative Extension (CCE)
- Plus many more...

# Forestry / Fishing Outreach & Partners

**Forestry:**
- Shows:
  - Northeastern Loggers’ Expo (Maine & Vermont)
  - Woodmen’s Field Days (Boonville, NY)
- Organizations:
  - Bill Lindloff’s ProCUTS
  - Northeastern Loggers Association
  - Professional Logging Contractors of Maine
  - Certified Logging Professionals

**Commercial Fishing:**
- Shows:
  - Maine Lobstermen’s Forum
  - Massachusetts Lobstermen’s Forum
- Organizations:
  - Fishing Partnership Support Service
  - Coast Guard
  - NOAA
  - Maine Lobstermen’s Assoc.
  - Mass Lobstermen’s Assoc.
  - NIOSH Maritime
  - Plus many more...

# The Public Health Model

1. Define the problem
2. Identify risk and protective factors
3. Develop and test prevention strategies
4. Adopt widespread adoption
5. Primary and Post Event Care
OCCUPATIONAL HEALTHCARE

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

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

* As reported in The Guardian, Dec 6, 2017

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
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

Thank you for your interest!

Questions?