



# **NIOSH Injury Intervention Evaluation Research: Industry Partnerships**

**Harlan Amandus, Ph.D.**

**Chief, Analysis and Field Evaluations Branch**

**Division of Safety Research**

**National Institute for Occupational Safety and Health**

**[hamandus@cdc.gov](mailto:hamandus@cdc.gov)**



# Presentation Objectives

1. Overview of Division of Safety Research
2. Industry partnership examples

## Partnership constraints

3. Consistency with NIOSH research objectives
4. Protocol Development process
5. Quality assurance process
6. Funding mechanisms



# **1. Overview of Division of Safety Research**

**-Surveillance and Field Investigations  
Branch (SFIB)**

**- Protective Technologies Branch (PTB)**

**-Analysis and Field Evaluations Branch  
(AFEb)**



## 2. DSR/AFEB Industry Partnerships: Past Examples

<b>Industry Sector</b>	<b>Partnership</b>	<b>Target Injury</b>	<b>Intervention</b>
<b>Wholesale and Retail trade</b>	<b>Retail department store company</b>	<b>Back injuries</b>	<b>Backbelts</b>
	<b>Virginia C-stores/police depts.</b>	<b>Robberies, homicides, assaults</b>	<b>CPTED designs</b>
<b>Health care</b>	<b>6 nursing homes</b>	<b>Back injuries</b>	<b>Patient lifting equipment</b>
	<b>3 hospitals</b>	<b>STFs</b>	<b>Shoe, flooring, and hazard assessment</b>
<b>Transp., warehousing, &amp; utilities</b>	<b>MCMIS truck inspection program</b>	<b>MV crashes</b>	<b>Truck inspection program evaluation</b>
	<b>Power company linemen</b>	<b>Traumatic injuries</b>	<b>Risk factor assessment</b>



## 2. DSR/AFEB Industry Partnerships: Current Examples

Industry Sector	Partnership	Target Injury	Intervention
Wholesale and Retail trade	Oxnard, CA Police Department	Robberies, homicides, assaults	Community policing robbery-prevention model
Health care	Chicago hospital	Back injuries	Patient lifting equipment
	12 psychiatric hospitals	Patient on nurse violence	VPCM evaluation
Transp., warehousing, & utilities	Heavy truck drivers	MV crashes, MS injuries, and traumatic injuries	Risk factors evaluation
Manufacturing	Helicopter manufacturing company	Back injuries, STFs, hit by objects	Ergonomic and safety program



## 2. DSR/AFEB Industry Partnerships: Future Plans

Industry Sector	Partnership	Target Injury	Intervention
Wholesale and Retail trade	4-5 Police Departments	Robberies, homicides, assaults	Community policing robbery-prevention model
Health Care	Nursing homes	STFs	Shoe, flooring, and hazard assessment
Services	Food Service industry	STFs	Shoe, flooring, and hazard assessment
	PA public schools	Violence	Evaluation of violence toward school workers
Transp., warehousing, & utilities	Taxicab drivers	Violence	Taxicab safety equipment evaluation
	Service industry company	Fleet safety	CWS, LCWS, cameras, driver training

# Partnership Constraints

- 3. Consistency with NIOSH research objectives**



### **3. Consistency with NIOSH Research Objectives**

- NIOSH industry sector program goals**
- NIOSH Research constrained to meet program goals**
- NIOSH research meeting program goals will benefit an industry sector**





### 3. Consistency with NIOSH Research Objectives

#### 8 Industry Sectors Programs

[\(http://www.cdc.gov/NIOSH/NORA/\)](http://www.cdc.gov/NIOSH/NORA/)

- Agriculture, Forestry and Fishing
- Construction
- Health Care and Social Assistance
- Manufacturing
- Mining, Oil & Gas Extraction
- Services
- Transportation, Warehousing and Utilities
- Wholesale and Retail Trade



### **3. Consistency with NIOSH Research Objectives**

- 15 Cross-Sector Programs including musculoskeletal disorders, personal protective technology, and traumatic injuries**
- 7 Coordinated Emphasis Area programs including economics, surveillance, and exposure assessment.**



### **3. Consistency with NIOSH Research Objectives**

#### **Telecommunications Industry Strategic Goal**

**Reduce occupational traumatic injuries and fatalities by 70% in the telecommunications industries by 2014.**



### **3. Consistency with NIOSH Research Objectives**

#### **Telecommunications Industry Intermediate Goals for Traumatic Injuries**

- **Develop evidence based recommendations and best practices guidelines**
- **Identify causal factors and implement interventions to reduce falls from elevations, contact with electric power, and vehicle and equipment incidents**



### 3. Consistency with NIOSH Research Objectives

#### Musculoskeletal Disorders Cross Sector Goal

**Goal #4: Prevention and reduction of MSDs and related consequences of:**

- **Controls: Industry and job-specific engineering solutions, administrative practices, training, personal protective equipment, and medical management for preventing MSDs.**
- **Effectiveness: Proven methods for measuring the impact and cost-effectiveness of interventions for preventing or reducing MSDs.**
- **Implementation: Widespread application of proven interventions for preventing or reducing MSDs**



### **3. Consistency with NIOSH Research Objectives**

#### **Traumatic Injury Cross Sector Goals**

**Goal #1: Reduce fall injuries in the workplace**

**Goal #2: Reduce occupational injuries and deaths due to motor vehicles**

**Goal #3: Reduce occupational injuries and deaths due to machines and industrial vehicles**



### **3. Consistency with NIOSH Research Objectives**

#### **Economics Emphasis Area Goal**

**Goal #1.2: Assess the impact of health and safety investments, such as.....including costs saved by reducing occupational illness and injury as well as impacts on productivity, quality of products and services, company reputation, corporate financial performance, and the ability to attract and retain employees.**



### 3. Consistency with NIOSH Research Objectives:

#### Example: Sikorsky Aircraft Project Model

- **Objective: to evaluate a 'best practices model'**
  - NIOSH expertise in analytical epidemiology and business case was merged with Sikorsky's safety, ergonomics, and business case expertise.

#### NIOSH-Sikorsky Project Components:

- **Hazard assessment Phase**
  - Descriptive epidemiology - NIOSH
  - Safety and human factors engineering - Sikorsky
- **Intervention design and implementation Phase**
  - Safety and human factors engineering - Sikorsky
- **Intervention evaluation Phase**
  - Analytical epidemiology and statistics - NIOSH
  - Economics with business case experience – NIOSH/Sikorsky





## 4. Protocol Development

- **NIOSH protocol includes:**
  - **Research objectives and questions**
  - **NIOSH, company, and consultant roles**
  - **Data collection and processing procedures**
  - **Statistical analysis plan**
  - **Publication and dissemination plan**
  - **Timeline and budget**
- **Justifies the value of the research**
- **Support for integrity of scientific method**
- **Demonstrates feasibility**
- **Serves as NIOSH-Industry agreement**



# 5. Quality Assurance Process

## Review Process

- Protocol peer-review
- Human subjects review

## Assurances

- Minimizes risk to company and employees
- Security of records
- Individual consent to participate
- In accordance with federal laws (Privacy Act, HIPPA)



# 6. Funding Mechanisms

- **NIOSH funding sources:**
  - NORA funded projects
  - Congressional earmarked funds
  - Base budget
  - Industry funded projects
- **NIOSH provides staff resources**
- **Industry funds to NIOSH through the CDC Foundation:**
  - Letter of agreement
  - NIOSH deliverables
  - Budget
  - Timeline



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**National Institute for Occupational Safety and  
Health**

**Morgantown, WV.**

**[hamandus@cdc.gov](mailto:hamandus@cdc.gov)**

**304-285-5753**