

Council of State and Territorial Epidemiologists (CSTE)

Occupational Health Surveillance Work Group Meeting

Construction Sector Strategic Goals

Frank Hearl

Construction Sector Program Manager

Matt Gillen

Construction Sector Program Coordinator

March 28, 2007



Workplace Safety and Health

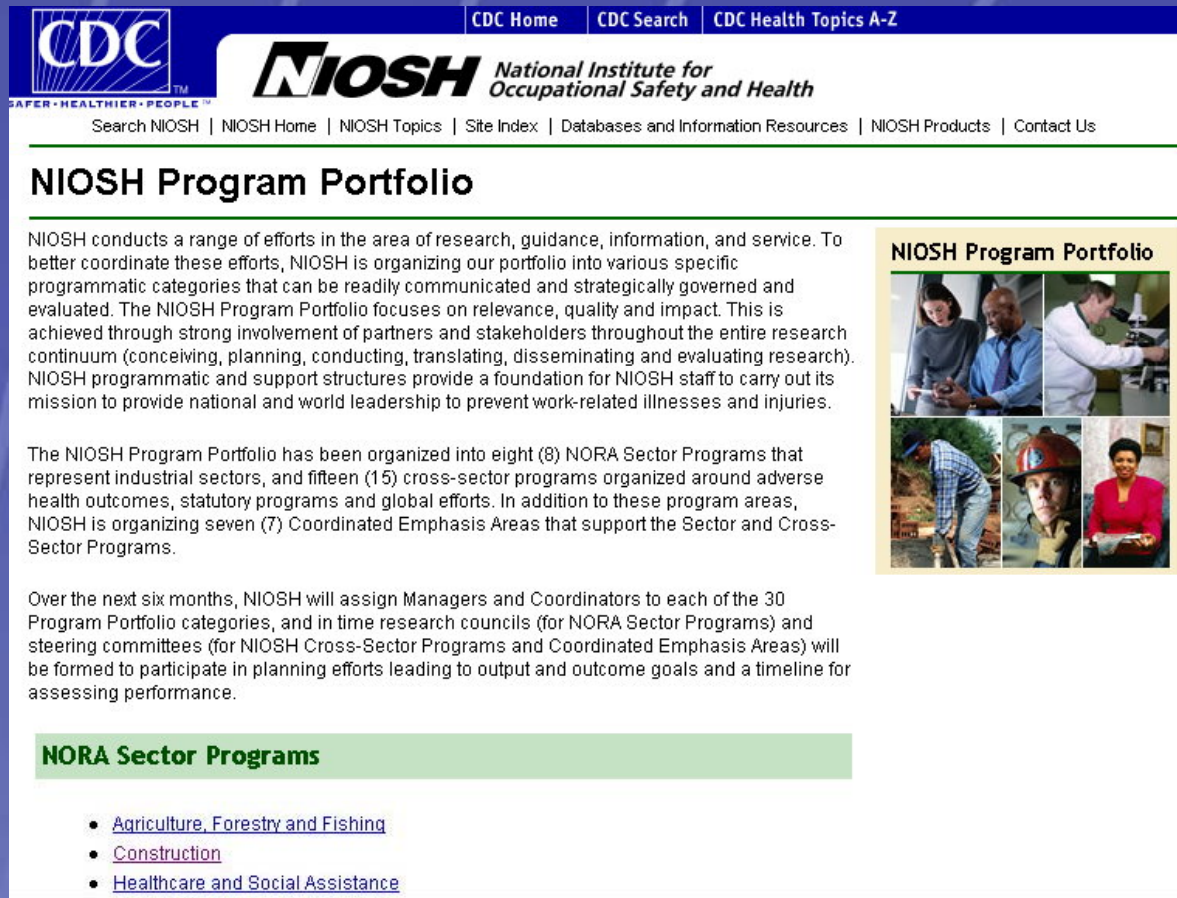


Overview

- NIOSH Program Portfolio
- National Academies Review
- Draft NIOSH Strategic Goals
- NORA Sector Council
- Surveillance Goals



NIOSH Program Portfolio



The screenshot shows the NIOSH Program Portfolio webpage. At the top is a navigation bar with links for CDC Home, CDC Search, and CDC Health Topics A-Z. Below this is the NIOSH logo and the text "National Institute for Occupational Safety and Health". A secondary navigation bar includes links for Search NIOSH, NIOSH Home, NIOSH Topics, Site Index, Databases and Information Resources, NIOSH Products, and Contact Us. The main heading is "NIOSH Program Portfolio". The text describes NIOSH's efforts in research, guidance, information, and service, organized into specific programmatic categories. It mentions that the portfolio focuses on relevance, quality, and impact, achieved through strong involvement of partners and stakeholders. It also states that NIOSH is organizing seven (7) Coordinated Emphasis Areas that support the Sector and Cross-Sector Programs. A section titled "NORA Sector Programs" lists three categories: Agriculture, Forestry and Fishing; Construction; and Healthcare and Social Assistance. To the right of the text is a collage of images showing various occupational safety and health scenarios, including a person working in a laboratory, a person wearing a hard hat, and a person in a red shirt.

NIOSH Program Portfolio

NIOSH conducts a range of efforts in the area of research, guidance, information, and service. To better coordinate these efforts, NIOSH is organizing our portfolio into various specific programmatic categories that can be readily communicated and strategically governed and evaluated. The NIOSH Program Portfolio focuses on relevance, quality and impact. This is achieved through strong involvement of partners and stakeholders throughout the entire research continuum (conceiving, planning, conducting, translating, disseminating and evaluating research). NIOSH programmatic and support structures provide a foundation for NIOSH staff to carry out its mission to provide national and world leadership to prevent work-related illnesses and injuries.

The NIOSH Program Portfolio has been organized into eight (8) NORA Sector Programs that represent industrial sectors, and fifteen (15) cross-sector programs organized around adverse health outcomes, statutory programs and global efforts. In addition to these program areas, NIOSH is organizing seven (7) Coordinated Emphasis Areas that support the Sector and Cross-Sector Programs.

Over the next six months, NIOSH will assign Managers and Coordinators to each of the 30 Program Portfolio categories, and in time research councils (for NORA Sector Programs) and steering committees (for NIOSH Cross-Sector Programs and Coordinated Emphasis Areas) will be formed to participate in planning efforts leading to output and outcome goals and a timeline for assessing performance.

NORA Sector Programs

- [Agriculture, Forestry and Fishing](#)
- [Construction](#)
- [Healthcare and Social Assistance](#)

www.cdc.gov/niosh/programs



Workplace Safety and Health



National Academies Review



SAFER • HEALTHIER • PEOPLE™

[CDC Home](#) | [CDC Search](#) | [CDC Health Topics A-Z](#)



NIOSH National Institute for
Occupational Safety and Health

[Search NIOSH](#) | [NIOSH Home](#) | [NIOSH Topics](#) | [Site Index](#) | [Databases and Information Resources](#) | [NIOSH Products](#) | [Contact Us](#)

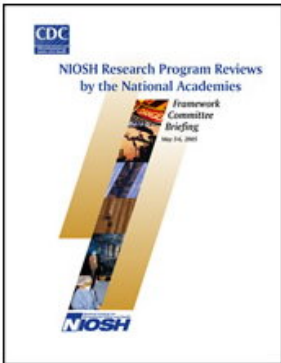
National Academies Evaluation of NIOSH Research Programs

The National Institute for Occupational Safety and Health (NIOSH) understands that external expert review is one of the most valid and accepted methods of evaluating research programs. Consequently, NIOSH requested that the National Academies (NA) evaluate NIOSH's research programs with respect to their impact, relevance, and future directions. The NA was asked to evaluate not only what NIOSH research programs are producing, but also to determine the extent to which NIOSH research is responsible for changes in the workplace that reduce the risk of occupational injuries, illnesses, and deaths. The evaluation is being undertaken by the National Research Council (NRC) and the Institute of Medicine (IOM) in the NA.

To do this, the NA has established a framework committee of eminent scientists. The framework committee is chaired by David Wegman, MD, of the University of Massachusetts at Lowell. Biographies of Dr. Wegman and the other 14 members of the framework committee are available at the NA website (see below).

The framework committee met for the first time on May 5-6, 2005 in Washington. They set the standards and methods to be applied by specialty panels for each NIOSH research program evaluated (see below for link). Up to fifteen programs will be evaluated by this framework, and the framework committee will advise all NA evaluation committees. Reports from each review will include a qualitative and a quantitative component. NIOSH has asked the evaluation committees to rate the research programs quantitatively on a scale of 1 to 5.

The review of the NIOSH Hearing Loss Research Program was released in August, 2006 (see



**National Academies
Evaluation of NIOSH Research
Programs**



*"NIOSH very much looks forward to utilizing the advice and recommendations from the National Academies evaluation. Through this process, we can greatly improve the safety and health of American Workers."—
NIOSH Director John Howard, M.D.*

www.cdc.gov/niosh/nas



Workplace Safety and Health



Construction Program



**National Institute for
Occupational Safety and Health**

[CDC Home](#) | [CDC Search](#) | [CDC Health Topics A-Z](#)

[Search NIOSH](#) | [NIOSH Home](#) | [NIOSH Topics](#) | [Site Index](#) | [Databases and Information Resources](#) | [NIOSH Products](#) | [Contact Us](#)

NIOSH Program Portfolio

[NIOSH Programs](#) > [Construction](#) > **Program Description**

Construction

Program Description

The mission of the NIOSH research program for the Construction sector is to eliminate occupational diseases, injuries, and fatalities among individuals working in these industries through a focused program of research and prevention. The program strives to fulfill its mission through:

- **High Quality Research:** NIOSH will continually strive for high quality research and prevention activities that will lead to reductions in occupational injuries and illnesses among workers in the Construction industries.
- **Practical Solutions:** The NIOSH program for the Construction sector is committed to the development of practical solutions to the complex problems that cause occupational diseases, injuries, and fatalities among workers in construction. We want to tailor these solutions to fit unique Construction sector attributes.
- **Partnerships:** We recognize that collaborative efforts in partnership with labor, industry, government, and other stakeholders are usually the best means of achieving successful outcomes. Partners are important for identifying the most relevant problems, for developing and participating in research projects, and as intermediate customers transforming research outputs into products for use by construction employers and workers. Fostering these partnerships is a cornerstone of the NIOSH program for the Construction sector.
- **Research to Practice (r2p):** We believe that our research only realizes its true value when put into practice. Every research project within the NIOSH program for the Construction

**NIOSH Program:
Construction**



►Program Description

- Inputs
 - [Sector Description](#)
 - [Economic Factors](#)
 - [Occupational Risks](#)
 - [National Research Agenda \(NORA\)](#)
 - [NIOSH Strategic Goals](#)
 - [Partners](#)
 - [NIOSH Contacts](#)
- Activities
 - [NIOSH Research Projects](#)
 - [NIOSH Funded Research Grants](#)



Workplace Safety and Health



Construction Strategic Goals

- Developed in 2005
- By Internal Construction Steering Committee and Subject Matter Experts
- Presented to Stakeholders (AIHA, ACCSH, etc.)
- Alignment with OMB-PART Goals
- *Draft* available on the Internet
- To be modified based on work of NORA Sector Council (2007)



Construction Strategic Goals

November 21, 2005

- Falls to lower level
- Run over by vehicles and equipment
- Contact with electricity
- Musculoskeletal disorders
- Noise-induced hearing loss
- Inhalation of lead, silica, welding fume
- Dermal exposure and disease
- ■ Improve surveillance: Fed, State, Private



Workplace Safety and Health





NORA Sector Council

- Organized in March 2006
- Met in Morgantown, WV on September 25-27, 2006
- Developed 10 draft goal areas and established workgroups
- Will meet again Summer 2007
- Goal: Produce a National Research Agenda for Construction

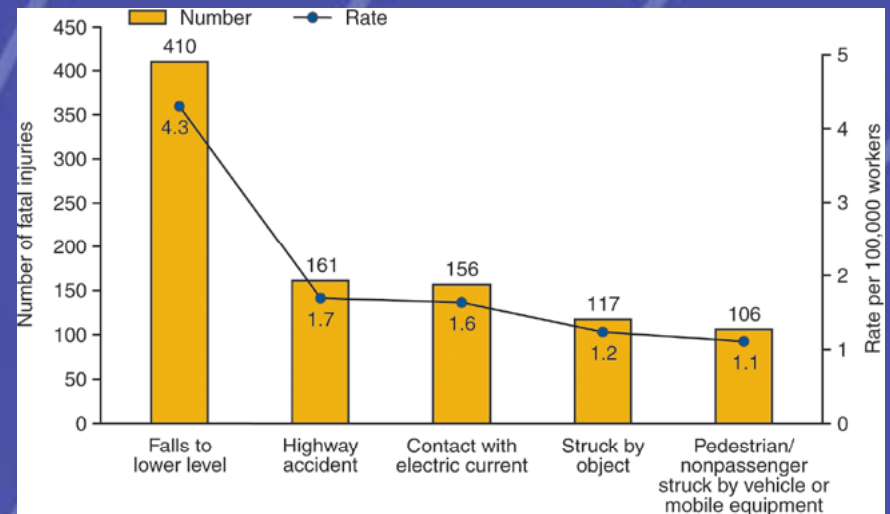


Falls to a lower level

- Leading cause of death in construction
- Third most common cause of non-fatal injuries with days away from work...typically severe
- Rates vary across trades, with highest rates among roofers
- 4,124 deaths (1992 – 2003)

[CPWR, 2005, using BLS]

- **NORA “Top Problem”**



Strategic Goal 1: Reduce Construction worker fatalities and injuries caused by falls to a lower level.

[NIOSH Chartbook, 2004. Data from 2001]



Hearing Loss

- 3.5-fold elevation in hearing loss in construction compared to other industries

[Waitzman and Smith, 1998]

- Hearing loss found even in young workers (e.g. age 25)

[Sweeney et al, 2000]

- Hearing conservation not currently required by OSHA for construction

- **NORA “Top problem”**



Strategic Goal5:
Reduce noise-induced
hearing loss (NIHL)
among construction
workers



Musculoskeletal Disorders

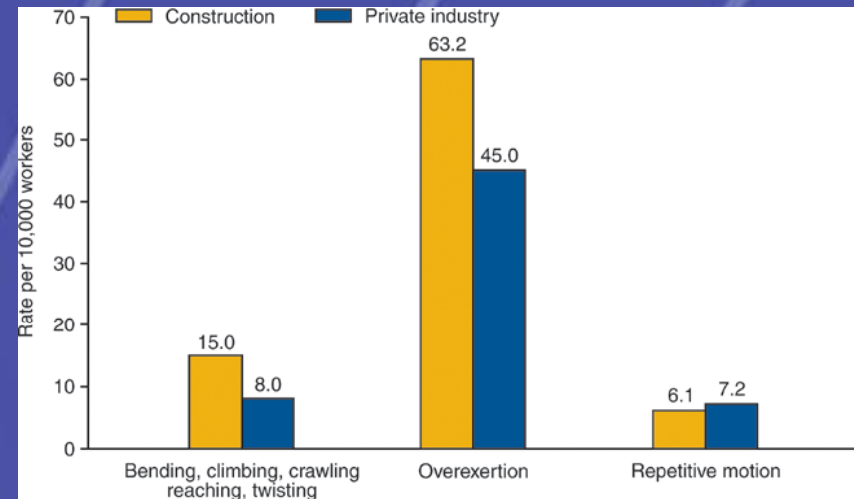
- Overexertion is second leading cause of non-fatal cases with days away from work in construction

[CPWR, 2005 using BLS 2003]

- Carpal Tunnel Syndrome prevalence rates in 4 trades ranged from 6.1- 9.6%

[Rosencrance et al 2002]

- NORA “Top Problem”**



Strategic Goal 4: Reduce the incidence and severity of work-related musculoskeletal disorders in construction work.

NIOSH Chartbook, 2004 Data from 2001



How will NIOSH use the Strategic Goals?

- Guidance for internal project planning program announcements
- Guidance for extramural program announcements
- Generation of topic-specific RFAs
- Markers for program monitoring and evaluation (including with OMB PART)



Importance of Surveillance

- Essential for creating strategic goals: provides starting point by identifying emerging problems
- Reliable outcome data needed as performance measures to judge progress.
- Monitoring trends over time (Impact).



Surveillance in Outcome Goals

- Used existing surveillance where possible for some performance measures (e.g. falls)
- Where limitations in data, forced to rely on “Demonstration Project” type performance measures
- Focused Strategic Goal 8 on big picture needs



Surveillance in Outcome Goals (Example 1)

Strategic Goal 1: Reduce Construction worker fatalities and injuries caused by falls to a lower level.

Overall Performance Measure:

Delivery of the following goals will improve sector capabilities to reduce falls from height to support an ambitious 20% reduction in **fall fatality rates** by 2016

(using a 2003 baseline).



Surveillance in Outcome Goals (Example 2)

Strategic Goal 2:

Reduce fatal and serious nonfatal injuries caused by roadway construction workers being run over by vehicles and equipment.

Overall Performance Measure:

By 2014, achieve a 40% reduction in the **number of fatalities and injuries** from workers being struck by construction vehicles and equipment in the road construction industry.



Strategic Goal #8: Surveillance Goal

1. Improve the quality and quantity of injury, illness, and exposure data.
2. Improve the exchange and use exposure, safety, and health information.
3. Increase the information available for three construction sub-sectors:
 1. Building
 2. Heavy
 3. Specialty Trade
4. Strengthen the capacity of States to conduct occupational surveillance and prevention activities in construction.
5. Promote surveillance by construction companies, unions, and others.



NORA Construction Sector Council

- Surveillance is one of the “top 10” issues
- Use “Logic model” and intermediate customer orientation to revisit and recalibrate intermediate goal options
- Use customer groupings to fine-tune intermediate goals
 - ◆ Traditional surveillance organizations (states, BLS, NIOSH, CPSC, etc)
 - ◆ Researchers, OSHA, practitioners, insurance carriers?
 - ◆ Construction stakeholders (trade associations, unions)



Limitations

- Industry and Occupation Coding may be lacking and/or inconsistent
- Incomplete reporting by states
- Example: Lead
 - ◆ 39 states reporting
 - ◆ Need better industry coding
 - ◆ Insufficient evidence of program impact for NA reviewers





Frank J. Hearl, PE

Chief of Staff

National Institute for Occupational Safety and Health

Hubert Humphrey Building, M/S-P12

200 Independence Ave, SW

Washington, DC 20201

NIOSH Internet Site:

<http://www.cdc.gov/niosh>

Matt Gillen

Senior Scientist

National Institute for Occupational Safety and Health

Hubert Humphrey Building, M/S-P12

200 Independence Ave, SW

Washington, DC 20201



Workplace Safety and Health

