The National Occupational Research Agenda (NORA) and research priority-setting in the United States

Sidney C. Soderholm, Ph.D.
Colloque IRSST
22 May 2008
National Institute for Occupational Safety and Health (NIOSH)

Created in 1970
Currently, about 1400 employees in more than six locations
<table>
<thead>
<tr>
<th>NIOSH</th>
<th>Conduct Research</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Develop Recommendations</td>
</tr>
<tr>
<td></td>
<td>Special Responsibilities (Health):</td>
</tr>
<tr>
<td></td>
<td>Harmful substances/agents</td>
</tr>
<tr>
<td></td>
<td>Emerging hazards/technologies</td>
</tr>
<tr>
<td></td>
<td>Low-level and chronic exposures</td>
</tr>
<tr>
<td></td>
<td>Support Training of Researchers and Professionals</td>
</tr>
<tr>
<td>OSHA</td>
<td>Create and Enforce Regulations</td>
</tr>
<tr>
<td>BLS</td>
<td>Collect and Share Data on Labor Economics and Statistics</td>
</tr>
</tbody>
</table>
NI OSH Research Benefits Workers

Logic Model View

Inputs
- Planning
- Resources

Activities
- Conduct Research

Outputs
- Interventions
- Publications
- Technologies

Outcomes
- Safer
- Healthier
- Workers
NI OSH Research Benefits Workers

Logic Model View

Inputs: Planning, Resources
Activities: Conduct Research
Outputs: Interventions, Publications, Technologies
Intermediate Outcomes/Custumers: Products, Training, Standards, Campaigns
Outcomes: Safer Healthier Workers

PARTNERS (RELEVANCE)

EVALUATION (QUALITY)

IMPACT
Research Priority-Setting before NORA

NIOSH Chose Top Ten Diseases/Injuries (1982):
- Lung
- Traumatic Injuries
- Neurotoxic
- Musculoskeletal
- Cardiovascular
- Hearing Loss
- Psychological
- Cancer
- Reproductive
- Skin

Disease frequency
Disease severity
Ability to prevent

Presented prevention strategies in national symposia (1985 – 6)
NORA Vision

A national partnership effort to define and conduct priority occupational safety and health research
NORA Successes
1996-2006
Strong stakeholder input
Identified 21 priority areas
Teams detailed needs
NORA 21 Research Priorities (1996-2006)

Disease and Injury
- Allergic and Irritant Dermatitis
- Asthma and Chronic Obstructive Pulmonary Disease
- Fertility and Pregnancy Abnormalities
- Hearing Loss
- Infectious Diseases
- Low Back Disorders
- Musculoskeletal Disorders
- Traumatic Injuries
## NORA Research Priorities (1996-2006)

<table>
<thead>
<tr>
<th>Disease and Injury</th>
<th>Research Tools and Approaches</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allergic and Irritant Dermatitis</td>
<td>Cancer Research Methods</td>
</tr>
<tr>
<td>Asthma and Chronic Obstructive Pulmonary Disease</td>
<td>Control Technology and Personal Protective Equipment</td>
</tr>
<tr>
<td>Fertility and Pregnancy Abnormalities</td>
<td>Exposure Assessment Methods</td>
</tr>
<tr>
<td>Hearing Loss</td>
<td>Health Services Research</td>
</tr>
<tr>
<td>Infectious Diseases</td>
<td>Intervention Effectiveness Research</td>
</tr>
<tr>
<td>Low Back Disorders</td>
<td>Risk Assessment Methods</td>
</tr>
<tr>
<td>Musculoskeletal Disorders</td>
<td>Social and Economic Consequences of Workplace Illness and Injury</td>
</tr>
<tr>
<td>Traumatic Injuries</td>
<td>Surveillance Research Methods</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>NORA Research Priorities (1996-2006)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Disease and Injury</strong></td>
</tr>
<tr>
<td>Allergic and Irritant Dermatitis</td>
</tr>
<tr>
<td>Asthma and Chronic Obstructive</td>
</tr>
<tr>
<td>Pulmonary Disease</td>
</tr>
<tr>
<td>Fertility and Pregnancy</td>
</tr>
<tr>
<td>Abnormalities</td>
</tr>
<tr>
<td>Hearing Loss</td>
</tr>
<tr>
<td>Infectious Diseases</td>
</tr>
<tr>
<td>Low Back Disorders</td>
</tr>
<tr>
<td>Musculoskeletal Disorders</td>
</tr>
<tr>
<td>Traumatic Injuries</td>
</tr>
<tr>
<td><strong>Work Environment and Workforce</strong></td>
</tr>
<tr>
<td>Emerging Technologies</td>
</tr>
<tr>
<td>Indoor Environment</td>
</tr>
<tr>
<td>Special Populations at Risk</td>
</tr>
</tbody>
</table>
NORA Succesess
1996-2006
Strong stakeholder input
Identified 21 priority areas
including health/safety
Teams detailed needs
Leveraged resources for priorities
Created dynamic public-private partnerships
Created a new culture of priority-driven research
Award-winning examples of positive impacts on workers
Second Decade of NORA (2006 – 2016)

Move research to practice in workplaces through sector-based partnerships
Restructure NORA Around Industrial Sectors (NAICS)

Solicit Stakeholder Comments
- Submission form on internet
- NORA Town Hall meetings
  - 13 locations
  - Transcript to capture comments
- 850 submissions from individuals and organizations
- 1600 categorized comments in internet database on NORA website
- Considered by NORA Sector Councils

Form Sector Councils
- 1/3 NIOSH, 2/3 Partners
- Co-Leaders: one NIOSH, one Partner
- Meet twice per year
- Workgroups
- Corresponding Members
Initial NORA Sector Council Work

- Surveillance Data
- Stakeholder Input
- Member Expertise

Priority-Setting

Draft Strategic Plan
<table>
<thead>
<tr>
<th><strong>Strategic Goals</strong></th>
<th>Reductions in Worker Illnesses, Injuries, Deaths or Exposures (End Outcome)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Intermediate Goals</strong></td>
<td>Activities/Outputs of Intermediate Customers (Partners) that will be necessary</td>
</tr>
<tr>
<td><strong>Activity/Output Goals or Action Steps</strong></td>
<td>Activities/Outputs of Researchers or Partners that will be necessary</td>
</tr>
<tr>
<td><strong>Performance Measures</strong></td>
<td>Desired change in measurable activities/outputs/outcomes</td>
</tr>
<tr>
<td><strong>Organizational Commitments to Advance Specific Goals</strong></td>
<td>NIOSH will commit to advancing many of the goals; Partners will be asked to make commitments.</td>
</tr>
</tbody>
</table>
Agriculture, Forestry & Fishing  
Construction  
Healthcare & Social Assistance  
Manufacturing  
Mining  
Oil and Gas Extraction  
Services  
Public Safety  
Transportation, Warehousing & Utilities  
Wholesale & Retail Trade  
Cross-Sector Council
Priority Topics from Sector Partners include:

- MSD’s
- Health disparities
- Organizational culture
- Falls
- Motor vehicle incidents
- Violence
- Hearing loss
- Chemical exposures
Approaches under consideration include:

- Surveillance
- Etiological research
- Exposure assessment
- Engineering and administrative controls
- Training
- Intervention effectiveness research
- Demonstration projects
- Diffusion research
Approaches under consideration include:

Surveillance
Etiological research
Exposure assessment
Engineering and administrative controls
Training
Intervention effectiveness research
Demonstration projects
Diffusion research
Effective dissemination
Products / Practices
Standards

With partners involved in every step
Organizational Commitments

NIOSH will commit to advancing many of the goals.
Partnerships will be asked to commit to conduct research and translate/transfer the results effectively.
Everyone will be asked to help track progress to demonstrate success.
<table>
<thead>
<tr>
<th>NI OSH facilitates a priority-setting process that:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solicits Input from a Broad Range of Stakeholders</td>
</tr>
<tr>
<td>Involves Stakeholder-experts in Detailed Priority-Setting for the Nation Based on Data and Opinion</td>
</tr>
<tr>
<td>Leverages Resources of Other Organizations with Overlapping Missions</td>
</tr>
<tr>
<td>Facilitates Multiple-Partner Efforts to Effectively Achieve Positive Impacts on Workers</td>
</tr>
<tr>
<td>Is Expected to be Restructured Every Ten Years, As Needed, For Continuous Improvement</td>
</tr>
<tr>
<td>Raises awareness of OSH issues and identifies potential partners</td>
</tr>
<tr>
<td>Identifies partners interested in advancing priorities and recruiting others to assist</td>
</tr>
<tr>
<td>Enhances overall national effort in occupational safety and health</td>
</tr>
<tr>
<td>Generates notable success stories</td>
</tr>
<tr>
<td>Increasing research contribution to worker safety and health</td>
</tr>
</tbody>
</table>
NIOSH Research Benefits Workers

Logic Model View

Inputs → Activities → Outputs → Intermediate Outcomes/Customers → Outcomes

Planning → Resources → Conduct Research → Interventions, Publications, Technologies → Products, Training, Standards, Campaigns → Safer Healthier Workers

PARTNERS (RELEVANCE)

EVALUATION (QUALITY)

IMPACT

NIOSH Control
NIOSH uses its national standing to create forums to:

- Promote the importance of occupational safety and health
- Focus research on priority issues
- Leverage resources of organizations with overlapping missions
- Foster effective partnerships
- Increase its effectiveness
Register for NIOSH eNews for regular updates about NORA:

www.cdc.gov/niosh/enews

Review priority areas under consideration; comment on draft strategic plans for the nation:

www.cdc.gov/niosh/nora

In case of questions:

noracoordinator@cdc.gov