Agriculture, Forestry, Fishing, Safety & Health

Executive Summary

NIOSH Agricultural Center Initiative Evaluation Project
January 2010

Prepared by
High Plains Intermountain Center for Agricultural Health and Safety
Great Plains Center for Agricultural Health
The University of Iowa, Iowa City, IA
Director: Wayne Sanderson, PhD, CIH
http://www.public-health.uiowa.edu/gpcah/ 319-335-4207

High Plains Intermountain Center for Agricultural Health & Safety
Colorado State University, Fort Collins, CO
Director: Stephen J. Reynolds, PhD, CIH
http://www.hicahs.colostate.edu/ 970-491-1912

Northeast Center for Agricultural Safety & Health
Cooperstown, NY
Director: John May, MD
http://www.nycamh.com/ 607-547-6023 X-224

Pacific Northwest Agricultural Safety and Health Center
University of Washington, Seattle, WA
Director: Richard Fenske, PhD, MPH
http://depts.washington.edu/pnash/ 800-330-0827

Southeast Center for Agricultural Health and Injury Prevention
University of Kentucky, Lexington, KY
Director: Robert McKnight, MPH, ScD
http://ukcph.org/scahip 252-744-1000

Southwest Center for Agricultural Health, Injury Prevention, & Education
The University of Texas Health Center at Tyler, TX
Director: Jeffrey L. Levin, MD, MSPH
http://www.swagcenter.org/sitesearch.htm 903-877-5896

Western Center for Agricultural Health & Safety
University of California, Davis, DA
Director: Marc Schenker, MD, MPH
http://agcenter.ucdavis.edu/ 530-752-4050

National Institute for Occupational Safety & Health
Atlanta, GA
Director: John Howard, MD
http://www.cdc.gov/niosh/homepage.html

HHS/CDC 5 U50 OH008085-06/S

Special thanks to Marcy Harrington (Pacific Northwest Center) for Report cover design, and for editing assistance from Teresa Donovan (Southeast Center).
The NIOSH Agricultural Center Initiative Evaluation Project Executive Summary Fiscal Year 2009 Report

Produced by:
The High Plains Intermountain Center for Agricultural Health and Safety

Vicky Buchan, Ph.D.

Helen Holmquist-Johnson, Ph.D.

with
Doree Kovis & Kristin Danhoff

Funded by: HHS/CDC 5 U50 OH008085-06/S
EXECUTIVE SUMMARY
NIOSH Agricultural Center Initiative Evaluation Report - FY 2009

Introduction

The Agricultural Health and Safety Center Initiative began with the development of two Centers in 1990 funded by the National Institute for Occupational Safety and Health (NIOSH). Due to the vast regional differences in agriculture production and practices across the United States, NIOSH chose to add additional Centers roughly corresponding to Public Health Service Regions. In FY 2009, the Initiative consisted of seven Agricultural Centers mandated to undertake research, develop prevention and education programs and provide consultation to constituents across the United States in an expanded North American Industry Classification System, occupational sub code 11, Agriculture, Forestry, Fishing & Hunting.

The mission of the Initiative is to reduce injury and disease in three of the most hazardous occupations in the United States, agriculture, forestry and fishing. This mission is to be accomplished by addressing the following objectives:


2. Develop, implement and evaluate educational and outreach programs for promoting health and safety for production agriculture/forestry/fishing including farmers, workers and their families. This would include providing consultation and/or training to researchers, health and safety professionals, graduate/professional students, and agricultural extension agents and others in a position to improve the health and safety of workers.

3. Develop, implement and evaluate model programs for the prevention of illness and injury among agriculture/forestry/fishing producers, workers and their families.

4. Develop linkages and communication with other governmental and non-governmental bodies involved in health and safety with special emphasis on communications with other agricultural/forestry/fishing health and safety programs (PAR-06-057).

Sections of FY 2009 report

The report for fiscal year 2009 is made up of four sections, two are new to this report, and were added based upon feedback from the Agricultural Center Evaluation (ACE) team members:
• Monitoring report on Center Initiative accomplishments for FY 2009
• An aggregate report on Initiative accomplishments for fiscal years 2007-2009
• An Illustration of projects featuring Research to Practice (r2p) successes from each Center
• A presentation of Center research projects by the National Occupational Research Agenda (NORA) Strategic Goal categories to provide a quick overview of the work of the Center Initiative

Background

In 1997 the High Plains Intermountain Center for Agricultural Health and Safety (HICAHS) obtained funding to begin the Initiative evaluation effort. Representatives from existing Centers attended biannual workshops, hosted by HICAHS, and collaboratively developed an Initiative database and defined indicators of progress on objectives. Reports were produced by the evaluation group for fiscal years 1999-2001, and with renewed funding 2005-2007.

NIOSH awarded supplemental funding to continue the program evaluation for fiscal years 2008 and 2009, and to produce both progress and year-end reports from the ACE database utilized by each Center. With the assistance of a small subgroup, consisting of NIOSH, the Southwest Center team members and HICAHS, forms were developed in ACCESS that allow Centers to pull up reports by project with the necessary components to respond to NIOSH requirements for each of these reports.

Initiative accomplishments FY 2009 – Program monitoring

Seven Centers collected and input data on 111 projects into a copy of the ACCESS™ database which was forwarded to HICAHS for aggregation and reporting. The FY 2009 Initiative data combines the productivity of all Centers to provide the necessary data to address eleven evaluation questions; a brief response to three of the questions is presented here, the reader is encouraged to review the full report for the remaining responses and discussion related to these outcome measures.

1. **What were the target groups of Center Initiative work during FY2009?**
   Over 450,000 contacts were made during FY 09; the primary target groups included Agricultural owners/operators, agricultural workers (including migrant & seasonal), the general public and health professionals.

2. **For what degrees and professional disciplines did the Center Initiative provide education during FY 2009?**
   The Center Initiative awarded over 80 professional degrees in 2009 including PhDs, DVMs, Masters, Bachelors and MDs. Disciplines included Occupational Health, Public Health, Nursing, Agricultural Safety and Health, Environmental Health, and Epidemiology. In addition, internships were provided by some Centers as well as one Post Doctoral fellowship.
3. **What research-to-practice (r2p) accomplishments were undertaken during FY 2009?**

   The r2p concept is a key outcome measure identified by NIOSH that indicates impact of Initiative work on target audiences. There are eight categories of r2p defined (see full report); the majority (63%) of Center project r2p was related to “Intervention & Education”, the second highest category was “Field Use.”

**Aggregate report for current funding cycle FY 2007-2009**

The second section of the report provides an overview of the work of the Center Initiative for the years 2007 through 2009, the first three years of the most recent funding cycle. The information provides responses to the same evaluation questions (three of which are provided below) and illustrates the cumulative accomplishments of Center personnel related to research, outreach, products, and additions to the knowledge base related to agriculture/forestry/fishing health and safety.

1. **What were the primary target populations or audience contacts by specific activities of the Center Initiative between 2007-2009?**

   Over the three year period, a total of 2,002,126 contacts were reported by the Center Initiative, approximately 380,000 of these were by direct contact, the remaining were indirect through product distribution.

2. **What products has the Center Initiative produced during fiscal years 2007-2009?**

   Eight hundred and eighty two products were developed by Initiative personnel over the three year period of the new cycle. Types ranged from professional publications to factsheets, newsletters, video/DVD/CDs and exhibit materials. All are methods of disseminating results of Initiative work to multiple stakeholders.

3. **What was the reported monetary value leveraged by the Center Initiative (in dollars and in-kind support) between 2007 and 2009?**

   A total of $2,022,347 dollars was leveraged by the Initiative over the three year period; of this $1,687,147 was in actual dollars. The remaining $335,200 was received as in-kind support such as specialized lab analysis or equipment access.

**Project success stories**

This year’s ACE report includes a new section presenting a project “success story” from each Center. These short reports were submitted by each participating Center and represent one or more categories of “Research to Practice” (r2p) efforts that have been accomplished through the efforts of Initiative personnel.
List of FY 2009 Initiative Projects by NORA Strategic Goals

The final section of the ACE report presents the projects of all of the Centers categorized by NORA II Strategic goals and Intermediate goals. This overview was recommended by the members of the ACE team as a way to illustrate topics and types of current projects of the Centers, and to perhaps provide potential for future collaborative efforts particularly as personnel work on submission for the next funding cycle.

Discussion

The 2009 fiscal year report represents the work and accomplishments of the staff, collaborators, and partners of the seven reporting Agricultural Centers undertaking research, prevention and education on behalf of those working in agricultural, forestry and fishing occupations across the United States.

NIOSH again provided support to each participating Center to acknowledge the time and effort that individual team members put into the ACE data collection process; and the Centers are most appreciative of the funding provided.

The Centers which make up the Agriculture/forestry/fishing Initiative provided data in the ACCESS™ database to HICAHS for aggregation. A number of limitations to this monitoring process are presented in the report and represent some of the methodological limitations of all multisite evaluation efforts.

Recommendations and conclusions

The ACE team has now completed three full years of program monitoring during the current funding cycle. The results presented in the report describe a broad range of activities across diverse regions of the country during fiscal year 2009 as well as cumulatively over the current funding cycle. In addition selected Initiative r2p success stories are presented and Initiative work is categorized by NORA strategic goals.

The ACE project began as a response to an external evaluation review of the Center Initiative (Kennedy, 1995). The National Academy of Science evaluation completed in 2008, also encouraged the Centers to work together with NIOSH to approach the evaluation need collaboratively. The ACE team, with support from NIOSH, has provided a viable approach to monitor and document the activities, products, outreach, and translation efforts of Initiative projects.

The primary recommendation of this ACE report is to build upon the experience and knowledge the ACE process has provided and continue to pursue collaborative evaluation with the new funding cycle. The second recommendation is to continue to provide support to the ACE team members located in each participating Center, as it is through their efforts that the view of the Initiative as a whole is possible.
Agricultural Center Evaluators

Patricia Ramstad and Murray Madsen
Great Plains Center for Agricultural Health
The University of Iowa, Iowa City, IA
(319) 335-4481
patricia-ramstad@uiowa.edu

Teresa Donovan
Southeast Center for Agricultural Health & Injury Prevention
University of Kentucky, Lexington, KY
(859) 323-4602
tdon2@email.uky.edu

Vicky Buchan and Helen Holmquist-Johnson
High Plains Intermountain Center for Agricultural Health & Safety
(Lead Center)
Colorado State University, Fort Collins, CO
(970) 491-1912
buchan@cahs.colostate.edu
hjohnson@cahs.colostate.edu

Sue Ackerman
Northeast Center for Agricultural Safety & Health
Cooperstown, NY
(607) 547-6023 ext. 224
sackerman@nycamh.com

Karen Gilmore and Sara Shepherd
Southwest Center for Agricultural Health, Injury Prevention, & Education
The University of Texas Health Center at Tyler
Tyler, TX
(903) 877-5846
karen.gilmore@uthct.edu

Marcy Harrington
Pacific Northwest Agricultural Safety and Health Center
University of Washington, Seattle, WA
(206) 685-8982
marcyw@u.washington.edu

Sandy Freeland
Western Center for Agricultural Health & Safety
Davis, CA
(530) 754-8678
sfreeland@ucdavis.edu

W. Allen Robison
National Institute for Occupational Safety and Health (Sponsor)
Atlanta, GA

For additional information concerning this report, please contact:
Helen Holmquist-Johnson, (970) 491-2088 or hjohnson@cahs.colostate.edu