# Appendix A

<table>
<thead>
<tr>
<th>Effective Coalition Infrastructure Outcomes</th>
<th>Construct</th>
<th>Ineffective Infrastructure Outcomes</th>
<th>Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shared</td>
<td>Social Vision</td>
<td>Diffuse</td>
<td>Impact</td>
</tr>
<tr>
<td>Collaborative</td>
<td>Efficient Practices</td>
<td>Non collaborative</td>
<td>Outcome</td>
</tr>
<tr>
<td>New</td>
<td>Knowledge &amp; Training</td>
<td>Stagnant</td>
<td></td>
</tr>
<tr>
<td>Rewarding</td>
<td>Relationships</td>
<td>Unsatisfying</td>
<td></td>
</tr>
<tr>
<td>Diverse</td>
<td>Participation</td>
<td>Unvarying</td>
<td>Process</td>
</tr>
<tr>
<td>Completed</td>
<td>Activities</td>
<td>Incomplete</td>
<td></td>
</tr>
<tr>
<td>Sufficient</td>
<td>Resources</td>
<td>Insufficient</td>
<td></td>
</tr>
</tbody>
</table>

*Figure 1. Internal Coalition Outcomes Hierarchy (ICOH).*

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INSTRUCTIONS:
The ICE© instrument measures the internal effectiveness of coalitions from an organizational perspective. There are two sections to the instrument. Section I asks you to consider how well members work together to achieve common goals and objectives. Section II asks you to consider if coalition leaders are effective in facilitating the work of the coalition. Coalition leaders are defined as elected officers, committee chairs, and board members. Please mark the response that best describes your opinions regarding each of the items below. Mark one response per item.

SECTION I: MEMBERS WORKING WITH MEMBERS

<table>
<thead>
<tr>
<th>Members and participants of the CS-CASH Center…</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Unsure</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. have a shared social vision.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>2. agree with our mission and purpose.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>3. work together to make resources go substantially further.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>4. work together to coordinate activities to avoid duplication of services and efforts.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>5. work together to strengthen each other’s efforts.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>6. work together to expand each other’s knowledge and potential for addressing agricultural and/or Center issues.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>7. enrich each other’s abilities and skills in the focus areas of the Center</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>8. work together to establish positive relationships with community members whom the Center wants to engage and mobilize.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>9. encourage each other to actively participate in the Center’s decision-making process.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>10. encourage each other to identify issues, analyze problems, select interventions and evaluate interventions when needed.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>11. have a sense of inclusivity that engages a variety of public and private individuals from the community in Center activities</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>12. successfully implement the vast majority of the Center’s project activities on a timely basis.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>13. take the necessary corrective action when problems arise.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

Correct Marking: ●
Incorrect Marking: ⊗
### SECTION II: LEADERS FACILITATING COALITION SUCCESS

<table>
<thead>
<tr>
<th>Leaders of the CS-CASH Center work for success by…</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Unsure</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>14. facilitating a shared social vision among Center members &amp; participants.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>15. facilitating the process of developing agreement among Center members &amp; participants about the Center’s mission and purpose.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>16. promoting the involvement of a broad base of members and participants in the work of the Center.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>17. repositioning Center assets, competencies, and resources to address changing needs and priorities.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>18. developing other leaders within the Center.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>19. providing resources to keep Center members &amp; participants current on agricultural and/or Center issues.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>20. providing resources to keep Center members &amp; participants informed about best practices on the issues.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>21. providing resources to develop leadership skills among Center members.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>22. establishing positive relationships with community members that the Center want to engage and mobilize.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>23. facilitating positive community relationships with other local key players and stakeholders involved in agricultural and/or Center issues.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>24. building respectful relationships between Center members/participants and the community.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>25. encouraging members’ active participation in the Center’s decision-making processes.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>26. facilitating open communication between Center members and participants</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>27. facilitating a sense of inclusivity that engages a variety of public and private individuals from the community in the Center’s work</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>28. working to engage a broad cross section of the community to participate in the Center’s work.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>29. providing necessary organizational oversight to the Center based on evaluation data to ensure that the vast majority of the activities are implemented on a timely basis.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>30. taking the necessary corrective action when problems arise</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

**Survey Code:**

*Coding for Data Entry purposes:* 1 = Strongly Disagree, 2 = Disagree, 3 = Unsure, 4 = Agree, 5 = Strongly Agree
Background

The Internal Coalition Effectiveness (ICE©) instrument was administered to 38 members and leaders of the CS-CASH Center in October of 2014 to obtain follow-up data on the center’s organizational effectiveness for comparison to the previous two years results in 2012 and 2013. The ICE© instrument is part of the Evaluation Core’s overall design (Aim 3) with the purpose of providing formative data to CS-CASH leaders on how to strengthen various aspects of the coalition toward goal achievement. A change to the delivery mode was sending Leaders and Members separate email messages in order to clarify the survey purpose.

The ICE© instrument evaluates the six conceptual levels of coalition effectiveness in two ways: (1) from the perspective of members’ collaborative interactions, and (2) from the perspective of leadership influence.

Members are defined as those who participate in the essential work on a regular or intermittent basis (e.g., community participants, committee/project/team members, advisory/consultant/participating personnel, or other deemed as essential to the work of the project. There were 27 individuals identified as CS-CASH members.

Leaders are essential in facilitating the work to be accomplished. Leaders are defined as those in positions of accountability and include principal and co-investigators; chairs/co-chairs of committees, teams, project, boards; participating agency directors, etc. There were 11 individuals identified as CS-CASH leaders.

Constructs of this valid and reliable instrument include:

1. **Social Vision**: The degree of shared vision and mission that exists.
2. **Practices**: The extent to which skills/practices relative to agricultural health and safety are shared and contribute to sustained collaborative interaction and goal achievement.
3. **Knowledge and Training**: The degree to which knowledge in various aspects of agricultural health and safety are shared and contribute to sustained collaboration and goal achievement.
4. **Relationships**: The quality and quantity of interactions and relations that contribute to and sustain collaboration and goal achievement.
5. **Participation**: The extent of participation among members and leaders to ensure that goals are achieved, as well as the effectiveness of outreach work beyond the internal activities of the grant/project.
6. **Activities**: The degree to which aims/goals/work plan is implemented in its entirety and on a timely basis.

The ICE© instrument consists of 30 items. Survey respondents rate each item according to a 5-point Likert scale where 1 = strongly disagree and 5 = strongly agree.
Baseline Findings

The ICE© instrument was emailed on October 1, 2014, to 11 External Advisory Board members, 16 Project Members (total of 27 members) and 11 Center Leaders (grand total of 38 recipients) using a link to Survey Monkey. The total response from the first mailing was n=12. Two members did not complete the survey as they reported they did not know much about the interactions of the principal players in the Center. One week later a reminder email was sent and the total response rate was again n = 12. The third and final reminder was sent five days later with a response of n=4. The combined total response was n = 28. The breakdown was n = 11/11 or 100% response from leaders and n = 17/27 or 63% response from members. The grand total response rate was 28/38 or 74%.

Overall Strengths/Opportunities: Findings were compared from the 2012, 2013 and 2014 surveys and showed that scores in each of the categories increased modestly. The Center continues to have strong levels of effectiveness in each of the conceptual constructs of a coalition. In particular, there is a strong sense of shared Social Vision and Mission and highly collaborative Relations among Center members/leaders that promotes continued productivity and success for the Center.
Members 2012, 2013, 2014: A comparison among the three years depicted in Figure 2 show ratings in each of the categories increased in Year Three and are high overall. Members rated Activities lower than other categories indicating that Center members may be less certain about the degree to which aims/goals and the work plan are implemented in its entirety and on a timely basis.

![Figure 2: Member Overall Responses](image-url)
LEADERS 2012, 2013, 2014: A comparison of leader responses among the three years is depicted in Figure 3. Leaders continue to rate participation at the same high point with relations continuing as the highest construct.
CS-CASH FIELD INTERVIEW GUIDE FOR PILOT PROJECTS

Structure
1. How familiar are you with the Center’s organizational structure in terms of leadership and governance?
2. Have you gone onto the Center website? http://www.unmc.edu/publichealth/cscash/
   If yes:
   Is there anything that you would like to see added to the CS-CASH Website?
   If no:
   Let’s go to the website so you can mark it for future use.

Process
3. Have you entered your activities into the on-line http://www.unmc.edu/publichealth/cscash/
   click on “About Us” tab then to the right click on “CS-CASH Members” and enter user name and password.
   If yes,
   Were you able to access the form and enter information easily?
   Are you able to enter information on a regular basis?
   Have you utilized the “View Activities” tab yet to see a list of activities that you have entered?
   If no,
   Let’s look at that site and run through how to use it.

Governance
4. So far, has your experience with the CS-CASH Center been positive such that you would consider doing this again?
   a. What has worked well/been problematic?
5. How well does the Center manage their part of the contract with you?
6. Do you receive the communication and/or support you need from the Center and in a timely manner?
   a. Is there any way that the Center might improve?
6. Overall, do you see the Center as being a good partner for your project and its goals?
   a. In what ways has the Center been/not been a good partner?
8. Do you foresee any future collaboration with the Center?
   a. If yes, in what capacity?
9. What barriers have you encountered in working with the Center?
10. What could the Center do better to help you meet your professional goals?
11. Do you currently, or have you in the past, worked with other Ag Centers?
    If yes,
    a. How would you say that CS-CASH fares in comparison?
    Are there positives in the other Ag Centers that CS-CASH should consider as a way to improve?
12. How would you describe your level of understanding and commitment to the CS-CASH goals and mission?

Pilots -- Timeline and Scientific Focus
13. We know something about your project from the grant proposal, but can you also give us a brief description of your project and where you are at now?
14. Tell us about your timeline for the project. Do you feel you are on schedule? If not, how could the Center help?

15. How is the Center as a scientific collaborator? What does the Center bring to your work?

16. Are you getting what you need from the CS-CASH research coordinator?
   a. If so, what services/resources in particular do you find most helpful.
   b. If not, what services/resources would you like to have made available?

17. Will you be able to use this pilot study for submission of your next level of external funding?

18. At this point in your project, do you foresee collaborating with the CS-CASH Center and/or our UNMC researchers for your future scientific collaborations?
   a. If so, what resources/benefits does CS-CASH offer that will be important to your future work?
   b. If not, please share with us what resources/services you need that the Center does not currently provide.

19. In your opinion, has the effort invested in this pilot been worth the amount of funding that you received from CS-CASH?

Closing

20. Do you have any additional comments or thoughts regarding the CS-CASH Center?

Just a reminder to all of you who will be presenting and publishing results from work that was sponsored by CS-CASH. Please remember to acknowledge this funding. This is one more way that we can demonstrate our Outputs/Outcomes to NIOSH.

Here is the grant information:

Funding from the Central States Center for Agricultural Safety and Health NIOSH Contract grant number: 1U54OH010162-02
The Evaluation Coordinator conducted telephone and site visits with six Central States Center for Agricultural Safety and Health (CS-CASH) pilot project investigators (five via phone conference and one in-person meeting on-campus). The specific aims were to determine from pilot project investigators: a) familiarity and perceptions of the Ag Center’s organizational structures, mission, and goals; b) satisfaction with collaborations within the Ag Center; c) satisfaction with new knowledge, training, and practices gained from participation in the Ag Center; d) satisfaction with Ag Center’s operational support and resources; e) progress on projects; (f) other means of sustainability.

In addition, the following CS-CASH features were discussed at each member meeting:

- Website and Facebook site
- Database
- Organizational Chart
- Mission/Vision
- Monthly Meetings
- Annual Reporting
- Logic Model: Intermediate Outcomes
- Success Stories
- Funding Source Citation

Results and Recommendations

A. Familiarity with organizational structures, mission and goals

All six investigators knew about the monthly meetings and attended as they could fit it into their schedules, but most could not attend regularly. There was a dichotomy in interest areas of bench research and practical “hands on in the field” projects and focus. Some were very familiar with the organizational structure and others were hearing about it for the first time. Familiarity with specific elements of the organizational chart ranged along the line of focus areas (e.g., research core director was unfamiliar to all but the internal pilot project) The organizational chart and logic model were reviewed during each interview. “I like your logic model as I can understand it. Sometimes they are not as practical.” Website: “pretty darn good”. The Center is known for its “outreach engagement “

B. Satisfaction with collaborations within the Ag Center

All reported a high level of satisfaction, would do this again, and were very appreciative of the pilot funding opportunity. “I probably have my most interaction with Ellen and she is extremely great to work with positive and open. I really feel that she especially and her personality make me feel like part of the team. The downside is the distance as I would like to be closer so we could more easily collaborate on projects and be more involved and a support person to your team.”

“No problems. Jenelle has facilitated payment to farmers and she has handled that well.”

“You have more people with farm backgrounds and familiarity of farms than we have over here. That makes you a good partner for us.”

A theme was in wanting to learn more about other pilot projects that might interface in some way with their work. Respondents also said they would like more associations with researchers studying their particular area of agricultural safety and health. Pilots reach populations more directly on the ground level”; Reaches communities across regions”. Distance was cited as the only barrier. The personal meeting or being able to interact would be more easily done.

C. Satisfaction with new knowledge, attitudes, practices gained
Depending on interest area, Ag health and safety knowledge had been increased by the CS-CASH association due to learning about local work issues with hearing, pulmonary and injury surveillance in addition to the website and meetings. It has been helpful to look at other pilots and what they have done. Others knew options were available but had not availed themselves of the learning opportunities thus far. New researchers: An earlier contact as requested. “To ask me how are you doing? Any issues with methodologies. No one down hall to run to with questions.” “…as once we start having, looking at evaluation materials as they come in. I will be looking for support from your evaluation team.”

Several mentioned the Ag Course as a way to increase their knowledge of Ag safety and health.

D. Satisfaction with operational support and resources

The PI’s were content with the pilot project process for funding distribution. Three noted problems on their end (two with IRB issues and one with a partnering agency).

E. Progress on projects

One project (Low Stress Cattle Handling and Safety) was totally abandoned due to the departure of a major stakeholder. They were not able to proceed because a major partner was unable to fulfill their obligation of providing access to students. The PI had communicated this information to the CS-CASH coordinator. “We need training in the beef industry before we put people to work that we do not have right now”. “Would still like to produce a quality feedlot safety video”. Respondent gave an example of an accident in March, 2016 with a truck rolling across railroad tracks, damaging the tracks, but driver did not inform anyone and a passenger car later that day derailed and injured 32 train passengers.

Another project (Evaluation of Medication-Related Agricultural Injury Among Missouri Farmers) was unable to start due to their University’s IRB requiring more clarification on a letter sent to farmers. One of the study methods needed additional approval due to the way they are using some of the data. A protocol was written so that if they could not get enough information from the medical record, a letter would be sent to farmers asking for data and that is getting heavy oversight from IRB director. The PI is re-reviewing that piece and she is behind. The PI was advised to communicate the project status to CS-CASH coordinator. Another project (Farmer Evaluation of Agricultural Fatality Messaging: Best Practices for Disseminating Prevention Messages Based on FACE Cases) is behind due to the award process on their end with sponsored program and they could not get award until their human subject piece was completely approved. This delayed their receipt of funding until late spring this year. This delay has postponed the survey mailing until after harvest this fall. Three other projects are moving forward with minor, easily remedied glitches. One PI presented at the American Thoracic Society (ATS) in May with an audience of 100. Several are writing manuscripts.

F. Other means of sustainability

One PI commented that she was ready for the next level of funding but needed a collaborator.
A project (Safety in the Agricultural Work Camp Comic Book Development and Evaluation for Latino MSAW Families) has collaborators including the artist who want to make this a series with different topics such as heat, diabetes etc.

Another PI has a joint project submission for the new cycle of NIOSH Ag Center funding and is waiting to hear if it will be funded.

The Cardiovascular Disease Risk and Physical Activity in Farmers project PI plans for submitting larger grant proposals using several clinics in Nebraska and introducing best practices with implementing CVD risk f/u for rural people (including farmers).

Suggestions to strengthen the Center

Most did not have a response to this prompting. A few items are listed below.

“No, nothing negative, just going smoothly. I appreciate you calling, staying on target. My suggestion is a contact earlier, like every 6 months, a checkup.”

“I need to know how I can better utilize you. At 6 months how can you help me? Can you link me up with people that work with migrant farmers? Maybe a partner assigned to the pilot.”

Recommendations

1. Continue annual field visit interviews as they are helpful with orientation of new investigators to the CS-CASH project, reminds the new PI of when reports are due, helps PI’s to stay on target and gives meaningful information back to the leadership team.

2. Evaluation team then needs to track on leadership plan changes after pilot project interview data is absorbed in addition to the following items.
   a. Follow up the annual field visit with a phone call at the end of the project to determine other means of sustainability.
   b. Update field visit questions for better specificity and to more closely align with ICE survey questions.
   c. Explore adding timeline milestones to CS-CASH database with evaluation coordinator entering the data.
   d. Evaluation coordinator will request more specific information on success stories and outputs at the conclusion of a project. These topics are introduced at the 6-month field visit interview so the PI can be thinking about success stories along the way.
   e. Think about using Performance One Pagers (PPOP) with pilot projects as an evaluation tool as this is the NIOSH most recent mechanism for reporting to the public.
   f. Continue quarterly email communication from evaluation coordinator requesting updates from each PI. (Best results may be derived from sending individual email to PI rather than in a list-serve)

3. Explore the possibility of a UNMC CS-CASH partner being assigned to each pilot project.

4. Pilot investigators appreciate the funding sources and contacts that are generated from their association with CS-CASH and pilot project funding continues to be an advantageous method for reaching CS-CASH goals.
CS-CASH Logic Model

**ACTIVITIES**
- We conduct RESEARCH and OUTREACH...
  - Outreach Core Performance Indicators
  - Education programs
  - Outreach activities
- Research Core Performance Indicators
  - External Grants
  - Funded CS-CASH Pilots
  - NIOSH-funded projects

**OUTCOMES**
- That leads to PRODUCTS.
  - Outreach & Research Cores’ Performance Indicators
  - Reports
  - Presentations
  - Databases
  - Instruments
  - Conferences
  - Trainings
  - Media and Technology
  - Publications
  - New grants

And we move them to...

**OUR STAKEHOLDERS**
- Outreach & Administrative Cores’ Networks
  - Healthcare providers
  - Technology producers
  - Policy makers
  - Labor, trade, professional organizations
  - Extension Agencies
  - Educators
  - Government agencies (e.g., USDA)
  - Rural leaders
  - Research Core Networks
  - Other Researchers
  - Funding Agencies

**INTERMEDIATE OUTCOMES**
- Who TAKE ACTION to develop or revise practices/policies
  - Outreach & Administrative Cores
    - Best Practices
    - Guidelines
    - New Technology
    - Trade & media releases
    - New Websites
    - New Curricula
    - Research Core
    - Enhanced Research Capacity
    - Large national grant funding
    - Pilot projects sustained

Which influences our END USERS through improved knowledge and attitudes about health & safety

**END OUTCOMES**

**SOCIAL BENEFITS METRICS**
- Population Safety
  - Self-reported PPE use
  - Self-reported risk reductions
- Population Health
  - Self-reported hearing status
  - Self-reported respiratory
  - Self-reported injury
- Quality of Life
  - BRFS Item

**ECONOMIC BENEFITS METRICS**
- Health Care Utilization
  - Self-reported office visits
  - Self-reported ED use
  - Self-reported hospitalization days
  - Self-reported lost work days
  - Self-reported out of pocket expenses for injury
- Cost Benefits
  - Program costs relative to economic impacts

**CENTER SUSTAINABILITY METRICS**
- Effective Governance

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1. Performance Measure Source: NIOSH Logic Model. Data collected for CS CASH through Online Database.
2. Performance Measure Source: NIOSH Goals and Logic Model. Data collected for CS CASH through Social Network Analysis
6. Data collected through CS CASH INJURY SURVEILLANCE SURVEY (NASD)
Accessing the CS-CASH Project Activities Form

1. Go to the CS-CASH website: http://unmc.edu/publichealth/cscash
2. Click on: About Us (located on upper center of page)
3. Click on: CS-CASH Members (located on upper right side of page, under the Center’s logo)
4. Log-In:
   - Enter your UNMC NetID and password*
   - Project personnel not at UNMC will be given a user name and password to log-in**

The Add an Activity page contains the Project Activities Form where you will enter information about each activity that your project has completed.

Select a Project

Project Title (required field)
- Click on the down arrow to find a Drop Down list of alphabetized project titles. Select your project by clicking on the project’s name.
- The following fields in the form will populate (based on the name of your project):
  - Project Title
  - Project ID
  - Principal Investigator
  - Core
Activity

Target Group  (required field)
- Click on the down arrow to find a Drop Down list of groups
- Select the option that best describes the type of group this activity targeted

Activity Type  (required field)
- Click on the down arrow to find a Drop Down list of activities
- Select the option that best describes the type of your activity

# in Audience
- The estimated number of attendees, audience, or survey respondents

Start Date  (required field)
- Start date of the activity or date of publication

End Date
- If different from Start Date, enter the end date of the activity (e.g., a two day event)

Authors/Presenters  (required field)
- Names of author(s) or presenter(s) of the activity
- Separate names with commas

Activity Title  (required field)
- Title or name of the activity

Venue Name/Location  (required field)
- Name of venue (conference, meeting, publication, etc) where the activity occurred and the location (if applicable)

Population Group
- If the activity involved a special at-risk population, select the group from the Drop Down list

Ethnicity
- If ethnicity is relevant to the Population Group, select the ethnicity from the Drop Down list

Main States
- If the activity targeted one or more of the 7 CS-CASH states, select the state(s) by clicking on the box in front of the state abbreviation. There is also a choice to select all 7 states.

Other States
- If the activity targeted states other than the 7 CS-CASH states, select the state(s) by clicking on the box in front of the state abbreviation. There is also a choice to select all 50 states.

Activity Description
- Type a brief description of the activity

Submit
- Click on Submit. You will be taken to the “Project Activities List” page
The View Activities page contains the PROJECT ACTIVITIES LIST which includes a list of all activities that have been entered for each project.

### Select a Project

**Project Title**

- Click on the down arrow to find a Drop Down list of project titles. Select your project by clicking on the project’s name.

- Just as in the PROJECT ACTIVITIES FORM, the following fields will populate (based on the name of your project): Project Title, Project ID, Principal Investigator, and Core

- A list of all activities that have been entered to date for your project will appear. Updates can be made to an entry by clicking on the icon in the Action column.

### Log Off

Click on Log Off (in the upper right corner) to exit the Activities website.
Additional Password Information

Changing Passwords

* Project personnel at UNMC
  
  - will use their UNMC NetID and password to log-in. When you change your UNMC NetID password (as is periodically required), the new password will automatically be changed for the Activities Reporting log-in as well.
  
  - (Should you experience a problem, go to the IT Services website http://www.unmc.edu/its/ and click on "Password Reset" and then select "Change your password". This will coordinate your password across all UNMC servers.)

** Project personnel not at UNMC

  - will be given a user name and password to log-in. If you would like to change your password, contact Mary Wendl: mary.wendl@unmc.edu and she will contact UNMC IT to change it for you.
## Drop Down Lists

Below is a copy of the options on the Drop Down Lists used in the Activities Form

<table>
<thead>
<tr>
<th>Target Group Type</th>
<th>Activity Type</th>
<th>Special Population Group</th>
<th>Ethnicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Faculty</td>
<td>Abstract</td>
<td>Adults</td>
<td>African American</td>
</tr>
<tr>
<td>Advisory Committee</td>
<td>Annual Report</td>
<td>Children-all</td>
<td>Alaskan Native</td>
</tr>
<tr>
<td>Advocacy Groups</td>
<td>Article (peer reviewed)</td>
<td>Children-school age</td>
<td>Asian</td>
</tr>
<tr>
<td>Agricultural - Farm / Ranch / Horticulture</td>
<td>Article/Report (non-peer reviewed)</td>
<td>Children-toddlers</td>
<td>Hispanic</td>
</tr>
<tr>
<td>Agricultural - Fishing / Hunting / Trapping</td>
<td>Booklet/Brochure/Factsheet</td>
<td>Disabled</td>
<td>Indo-Chinese</td>
</tr>
<tr>
<td>Agricultural - Forestry</td>
<td>Course/Curriculum (short course or training)</td>
<td>Ethnic/Minority Workers</td>
<td>Native American</td>
</tr>
<tr>
<td>Agricultural Business</td>
<td>Evaluation Instrument/Tool</td>
<td>Migrant Workers</td>
<td>Pacific Islander</td>
</tr>
<tr>
<td>Agricultural Employees</td>
<td>Focus Group</td>
<td>Older Adults (65+)</td>
<td>White, non-Hispanic</td>
</tr>
<tr>
<td>Agricultural Owner/Operators</td>
<td>Interview (media/other)</td>
<td>Older Workers (55+)</td>
<td>(used only if applicable to the activity)</td>
</tr>
<tr>
<td>Agricultural Producer</td>
<td>Literature Review</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agricultural Services</td>
<td>Material Distribution</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agricultural Teachers</td>
<td>Medical Chart Audit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Children - preschool age</td>
<td>Meeting/Conference</td>
<td></td>
<td></td>
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<tr>
<td>Children / students - primary school age</td>
<td>Newsletter</td>
<td></td>
<td></td>
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<tr>
<td>Children / students - secondary school age</td>
<td>On-site Safety Audit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community Based Organizations</td>
<td>Peer Review (grant/paper)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cooperative Extension</td>
<td>Presentation (oral)</td>
<td></td>
<td></td>
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<tr>
<td>Farm Families</td>
<td>Presentation (poster)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Farmworker Health Advocates</td>
<td>Questionnaire/Survey/Checklist</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Federal Agencies</td>
<td>Site Visit</td>
<td></td>
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</tr>
<tr>
<td>General Public</td>
<td>Testing/Screening (clinical)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health Professionals</td>
<td>Training/Demonstration</td>
<td></td>
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<tr>
<td>Legislators</td>
<td>Video/Multimedia Material</td>
<td></td>
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<tr>
<td>Manufacturers and Distributors</td>
<td>Website</td>
<td></td>
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<tr>
<td>Media/Marketing Agents</td>
<td>Workshop</td>
<td></td>
<td></td>
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<tr>
<td>Migrant Seasonal Farmworkers</td>
<td></td>
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<tr>
<td>Multiple / Various Target Groups</td>
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<td></td>
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<tr>
<td>NIOSH / Ag. Centers</td>
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<tr>
<td>Parents</td>
<td></td>
<td></td>
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<tr>
<td>Public Health Agencies</td>
<td></td>
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<tr>
<td>Researchers</td>
<td></td>
<td></td>
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<tr>
<td>State Agencies</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Students - College / University</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Workers Compensation/Insurance</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

(used only if applicable to the activity)

(required to select one)
### TABLE 1. Social Network Analysis Survey Instrument

<table>
<thead>
<tr>
<th>Your Name</th>
<th>Extramural Stakeholder First Name</th>
<th>Extramural Stakeholder Last Name</th>
<th>Extramural Stakeholder’s Email Address</th>
<th>What Organization is the Extramural Stakeholder Affiliated With?</th>
<th>Extramural Stakeholder relates to Ag Health &amp; Safety Topic or a Specific CS-CASH Project</th>
<th>What Role Category is the Extramural Stakeholder?</th>
<th>Frequency of Contact with Extramural Stakeholder</th>
<th>Extramural Stakeholder’s Primary Sphere of Influence</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Project Related</td>
<td>Policy makers</td>
<td>Weekly</td>
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<tr>
<td></td>
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<td></td>
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<td></td>
<td>Topic Related</td>
<td>Health providers</td>
<td>Monthly</td>
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<td></td>
<td></td>
<td></td>
<td>Technology producers</td>
<td>Quarterly</td>
<td>National</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Other researchers</td>
<td>Annually</td>
<td>International</td>
</tr>
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<td></td>
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<td></td>
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<td></td>
<td>Rep of Labor, trade, professional organizations</td>
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<td></td>
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<td>Rep of Extension agencies</td>
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<td></td>
<td>Educators</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Rep for Rural communities</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
1. Which best describes your operation?
   - Family or individual operation – exclude partnerships and corporations
   - Partnership operation – include family partnerships
   - Incorporated under state law
   - Other (ex: estate or trust, prison farm, American Indian Reservation)

2. Please describe your production activity: (Check all that apply)
   - Grow/harvest - corn crops
   - Grow/harvest - soybean crops
   - Raise hogs/pigs
   - Raise cattle
   - Other (please specify:_________________________)

3. Acreage in 2013: a. What are the total acres that you own?
   b. What are the total acres that you rent/lease from others?
   c. What are the total acres that you rent/lease to others?
   d. What are the total acres in this operation?

4. Livestock in 2013: a. What were the total number of hogs and pigs on hand?
   b. What were the total number of cattle and calves on hand?

5. Which of the following best describes your status?
   - Principal operator or senior partner
   - Secondary operator
   - Other (please specify:_________________________)

6. What is your age? ______

7. Are you Hispanic or Latino?
   - Yes
   - No

8. What is your race?
   - White
   - Black or African American
   - American Indian or Alaska Native
   - Native Hawaiian or Other Pacific Islander
   - Asian

Please proceed to the back of this page
9. What is your sex?
☐ Male
☐ Female

10. Would you say that in general your health is:
☐ Excellent
☐ Poor
☐ Very good
☐ Don’t know / Not sure
☐ Good
☐ Refused
☐ Fair

11. Have you smoked at least 100 cigarettes in your entire life? (Note: 5 packs = 100 cigarettes)
☐ Yes
☐ No
☐ Don’t know / Not sure
☐ Refuse

12. Do you now smoke cigarettes every day, some days, or not at all?
☐ Every day
☐ Some days
☐ Not at all
☐ Don’t know / Not sure
☐ Refuse

13. If you smoke daily, on average, how many cigarettes do you smoke each day, including factory made cigarettes and roll your own cigarettes? # of cigarettes per day

14. Do you have any of the following conditions? (check all that apply)
☐ Mild hearing loss
☐ Severe hearing loss
☐ Chronic Obstructive Pulmonary Disease (COPD) (ex: Bronchitis, Emphysema)
☐ Asthma
☐ Sinus disease
☐ Nasal symptoms
☐ Coughing/wheezing

15. Are you familiar with wearing a dust mask as a safety measure for grain dust exposure?
☐ Yes
☐ No

16. If applicable how did you learn about wearing a mask in dusty conditions? (check all that apply)
☐ Flyers, brochures
☐ Television
☐ Email or Web-based (ex: You-Tube videos)
☐ Posters/displays
☐ Radio
☐ Newspaper articles/advertisements
☐ Agricultural shows/events
☐ Other (please identify: ____________________________ )
17. What is the estimated (%) amount of time you wear a mask in dusty conditions? % of time

18. Which of the following best describes reasons if you do NOT wear a dust mask for protection: (check all that apply)
- I forget
- I don’t think it’s important
- I don’t like to wear it
- I don’t own dust masks
- I don’t know how to select one
- It is uncomfortable
- It is an additional expense
- Other (please identify: ________________________)

19. Please indicate whether or not you agree with the following statements:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Don’t Know/No opinion</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>It is important to <strong>always</strong> wear a mask in dusty conditions.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Masks should be <strong>N95 approved</strong> to reduce health risks from dust.</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Masks need to be <strong>correctly fitted</strong> to each person.</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Dust exposure from animals (hogs, livestock) can result in serious respiratory conditions.</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Only farmers exposed to grain dust are at risk for developing respiratory health problems.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Harmful toxins produced by molds and bacteria are only present in grain dust and not dust from animals (hogs, livestock).</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smoking, asthma, and allergies increase the risk for complications associated with inhaled grain dust.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Continual exposure to dust can result in chronic obstructive pulmonary disease.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

20. Please respond if any of the following apply to you: (check all that apply)
- Number of respiratory symptom days in the last 30 days __________
- I have visited a health provider AT LEAST ONCE last year for treatment of a respiratory condition
- Number of ER visits in the past year for a respiratory condition __________
- Number of overnight hospitalizations in the past year for a respiratory condition __________
- Question does not apply to me
21. Are you familiar with hearing protection [ex: ear muffs, ear plugs] as a safety measure for farmers?  
☐ Yes  
☐ No

22. If applicable, how did you learn about the importance of wearing hearing protection in noisy environments? (check all that apply)  
☐ Flyers, brochures  
☐ Television  
☐ Email or Web-based (ex: You-Tube videos)  
☐ Posters_displays  
☐ Radio  
☐ Newspaper articles/advertisements  
☐ Agricultural shows/events  
☐ Other (please identify:_________________________________________________________________) 

23. Do any of the following apply to you? (check all that apply)  
☐ I have visited a health provider AT LEAST ONCE last year for treatment of a hearing condition  
☐ I have hearing problems but do not wear hearing aids  
☐ I have a hearing problem and wear hearing aids

24. If you wear hearing protection, what kind do you use?  
☐ Ear muffs  
☐ Ear plugs  
☐ Other (please specify:_________________________________________________________________) 

25. How often do you wear hearing protection( % ) around loud noise?  __________ % of time

26. Which of the following best describes reasons if you do NOT wear hearing protection: (select all that apply)  
☐ I forget  
☐ I don’t think it’s important  
☐ I don’t like to wear it  
☐ I don’t own any  
☐ I don’t know how to select it  
☐ It is uncomfortable  
☐ It is an additional expense  
☐ Other (please identify:_________________________________________________________________)
27. Please indicate whether or not you agree with the following statements:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Don’t Know/ No opinion</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>It is important to <em>always</em> wear hearing protection in <em>noisy conditions.</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>It is important that hearing protection be fitted correctly.</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Noise exposure from animals (hogs, livestock) can result in serious hearing loss.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Only farmers exposed to machinery noise are at risk for hearing loss.</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Continual, unprotected exposure to noise can result in serious hearing loss.</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Exposure to solvents, pesticides, and antibiotics increase the risk of hearing loss when there is also constant exposure to loud noise.</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

### SECTION 4: Central States Center for Agricultural Safety and Health (CS-CASH)

28. Have you heard of the Central States Center for Agricultural Safety and Health (CS-CASH) that is affiliated with the University of Nebraska Medical Center?
   - [ ] Yes  → PROCEED TO QUESTION #29
   - [ ] No  → PROCEED TO QUESTION #30

29. Which of the following CS-CASH programs/services have you accessed? *(check all that apply)*
   - [ ] CS-CASH Website
   - [ ] CS-CASH booth at regional Ag Fairs/events
   - [ ] CS-CASH emails containing agricultural safety and health messages
   - [ ] Reading safety and health–related articles in papers with contributions from CS-CASH staff
   - [ ] Noticing TV or radio programs about farm safety with contributions from CS-CASH staff
   - [ ] Other *(please specify:_________________________________________________________________)*

30. What is your primary source of information about agricultural health and safety? *(check all that apply)*
   - [ ] Web-based resources/sites *(please specify:_________________________________________________________________)*
   - [ ] Newspapers/journals *(please specify:_________________________________________________________________)*
   - [ ] Magazines *(please specify:_________________________________________________________________)*
   - [ ] Ag Fairs *(please specify:_________________________________________________________________)*
   - [ ] Local resources (ex: elevator operators, vendors, retail stores) *(please specify:_________________________________________________________________)*

*Please proceed to the back of this page*
31. In your opinion, how important are each of the following? Please rate each area on a scale of 1-5 with “1” being very important and “5” being not at all important.

☐ a. Clinical research on Ag-related health conditions (ex: grain dust exposure)
☐ b. Education to prevent Ag-related conditions or diseases (ex: hearing protection)
☐ c. Education to prevent Ag-related injuries
☐ d. Local community outreach programs to understand/identify concerns of Ag-operators/farmers

32. What suggestions do you have to improve the health and safety of persons employed in the agricultural industry?

_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________

Thank you for your participation!
Please return completed surveys to:
Mary Wendl, RN., M.S A.
UNMC College of Nursing
984350 Nebraska Medical Center
Omaha, NE 68198-5330

Information on the Central States Center for Agricultural Safety and Health can be found at:
http://unmc.edu/publichealth/cscash/
The CS CASH Logic Model to measure long-range, intermediate, and short-term goals is found in Appendix A. The metrics for each category are listed below and include End Results (5-10 year goals), which are tracked annually. The Intermediate Outcomes (< 5 years) are measured annually to inform community outreach and education. The Outputs and Activities are short-range goals that are ultimately necessary to achieve End Results.

END RESULTS

A. Morbidity/Mortality Measures Of Regional Ag Operators\textsuperscript{1,2}

1. Mild to Severe Hearing Loss
   \textit{Comparison: 17\%\textsuperscript{3} USA adult population}

   2013: 56\% of respondents
   Regional economic impact is 3,619 Quality Adjusted Life Years (QALY) lost and associated costs of $181 M.

   2014: 62\% of respondents
   Regional economic impact is 4,191 QALYs lost and associated cost of $209.5 M.

2. Respiratory Health
   COPD
   \textit{Comparison: Varies by state among USA Adult population: from <4\% in Washington and Minnesota to >9\% in Alabama and Kentucky. Nebraska average is 6.05\%.\textsuperscript{4}}

   2013: 2.1\% of respondents
   Regional economic impact is 3,969 QALYs and associated costs of $198.5 M.

   2014: 2.05\% of respondents
   Regional economic impact is 3,875 QALYs and associated costs of $193.8 M

   Asthma
   \textit{Comparison: 8\% USA Adult population\textsuperscript{5}}

   2013: 5\% of respondents
   Regional economic impact is 3,713 QALYs with an associated cost of $185.6 M compared to having perfect health

   2014: 2.05\% of respondents
   Regional economic impact is 1,522 QALYs and associated cost of $76.1 M.

Together, COPD and Asthma result in loss of 7.7 and 3.0 QALYs per case, respectively in 2014.

\textsuperscript{1} Self reported from 2013 and 2014 Midwest Respiratory and Hearing Survey (Cramer, M., Wendl, M., and Sayles, H.) Response rates were 28\% (2013) and 20\% (2014)
\textsuperscript{2} Self-reported from 2012 and 2013 Injury Surveillance Survey (Rautiainen, R. et al.). Response rates were 33\% (2012) and 34.6\% (2013),
Appendix J
Respiratory Problems
2014: 2.6% of respondents reported visiting an ED for respiratory problems. 1.5% of respondents reported overnight hospitalizations. Regional impact is 630 operators with ED visits, 379 requiring hospitalizations, and 1,388 with visits to other healthcare providers. Total healthcare expenditures are $5.8 million in 2014.

3. Injuries
2011: 6.5% of respondents reported at least one injury per year.
Economic impact was an average direct cost and lost earnings for an injured farm operator of $9227.
This implies 11,923 lost farm workdays and $16.4 million in economic losses from injury among all Ag operators in the CS-CASH region.

2012: 6.1% of respondents reported at least one injury per year
Economic impact was an average direct cost and lost earning for an injured farm operator of $11,383 in today’s dollars.
This implies 8,565 lost farm workdays and $15.8 million in economic losses from injury among all Ag operators in the CS-CASH region.

Exemplar Respondent Comments
“This is an important message for workers in agriculture.”

“I've used the simple face mask respirators before due to issues with dust. I know that I've got some lung damage because of working in grain, hay, and straw dust many, many years ago. I learned from your videos: the proper fit and care of each type of respirator; which I had never seen or read before seeing these videos. Thanks again for helping keep farmers safe and healthy. We sure do appreciate your help.”