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CENTERS FOR DISEASE CONTROL AND PREVENTION
NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH

convenes the

TOWN HALL MEETING

NORA

NATIONAL OCCUPATIONAL

RESEARCH AGENDA

The verbatim transcript of the
Town Hall Meeting of the National Occupational
Research Agenda held in Iowa City, Iowa, on
February 17, 2006.

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TRANSCRIPT LEGEND

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In the following transcript: a dash (--) indicates an unintentional or purposeful interruption of a sentence. An ellipsis (. . .) indicates halting speech or an unfinished sentence in dialogue or omission(s) of word(s) when reading written material.

-- (sic) denotes an incorrect usage or pronunciation of a word which is transcribed in its original form as reported.

-- (phonetically) indicates a phonetic spelling of the word if no confirmation of the correct spelling is available.

-- "uh-huh" represents an affirmative response, and "uh-uh" represents a negative response.

-- "*" denotes a spelling based on phonetics, without reference available.

-- (inaudible)/ (unintelligible) signifies speaker failure, usually failure to use a microphone.

TOWN HALL ORGANIZERS

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PROCEEDINGS

(9:00 a.m.)

OPENING REMARKS**SID SODERHOLM, NIOSH**

DR. SODERHOLM: Good morning, and welcome on this cool morning. My name is Sid Soderholm, I'm the Nora Coordinator. I'm in the office of the Director of NIOSH, and I'm really pleased to have you here this morning.

This is, I think, the 6th of 13 town hall meetings that we're having around the country. They've been very exciting; a lot of good information is being shared through these meetings. So we're pleased you can be here today.

The NORA process is important for occupational safety and health. NORA stands for the National Occupational Research Agenda. It's a set of priorities for occupational safety and health research, for everyone in the country. We in NIOSH make use of them, people in universities make use of them; even people in South America tell me they make use of them. So this process is one that has served people well for the past ten years.

About ten years ago we started NORA and had a

1 series of town hall meetings around the
2 country, received a lot of input, and some
3 priority setting was done in some of those
4 meetings. And out of that process came 21
5 priority areas that have guided occupational
6 safety and health research in NIOSH and in the
7 country for the past ten years.

8 The promise was made ten years ago that we
9 would revisit after ten years, that this would
10 be a set of research priorities for the decade.
11 So about a year or so ago, NIOSH started an
12 internal and an external process to think about
13 not only the successes of the first decade of
14 NORA, but how we could improve upon those
15 successes, how we can structure the second
16 decade of NORA to make the ability to conduct
17 the right research and to get the answers out
18 to the people who needed them more successful.
19 And that ended up in the sector-based approach
20 that I'll be talking about in a few minutes.
21 So we certainly haven't lost the gains of the
22 first decade of NORA. We still are focusing on
23 the important issues of hearing loss, and
24 musculoskeletal disease, and occupational
25 injuries. But we're going to bring a sector

1 focus to those and hopefully bring more
2 partners into the process.

3 Within NIOSH ourselves we have three
4 cornerstones of our planning for the future.
5 And those cornerstones are relevance, quality,
6 and impact. Relevance is: Are we asking the
7 right questions? Are we asking questions that
8 people care about the answers?

9 Quality of research has always been maintained
10 through a peer-review process. And within
11 NIOSH we've moved now to what's considered the
12 gold standard of peer review, and that is a
13 National Academies of Science review. And over
14 the next five years 15 of our internal programs
15 are going through an extensive and rigorous
16 National Academy of Science review. So that's
17 how we're dealing with -- that's one of the
18 ways in which we're dealing with the quality
19 issue.

20 But the real reason that congress allots
21 taxpayers' money to NIOSH is so that other
22 people will contribute time, effort, and funds
23 to do this kind of research in order to achieve
24 impact in the workplace, and that impact is the
25 third cornerstone of our planning.

1 And within NIOSH we are developing an improved
2 ability to work with partners, to make sure
3 that while we're doing the research, we're
4 working with the right people, and those people
5 then are in a position to use that research, to
6 take that research and give it to the
7 employers, and the workers, and the
8 organizations that can really make sure that
9 the hazards in the workplace are decreased.
10 So the NORA process, while it's not just a
11 NIOSH process, the NORA is national in scope.
12 The NORA process is important in helping NIOSH
13 in these three cornerstones of our planning,
14 and is important throughout the occupational
15 safety and health research community in the
16 country.
17 Clearly, relevance is the piece we're focusing
18 on today. We're asking people to tell us where
19 the questions remain. What are the problems
20 where research, additional information, better
21 techniques will make a difference in the
22 workplace. So we're really focusing on that
23 stakeholder input, listening to the
24 stakeholders, and finding out what kinds of
25 research need to be done and will have an

1 impact.

2 But at the same time, at every one of these
3 meetings, people have come up and they've
4 identified themselves as a potential partner
5 for researchers. Someone who has an idea, who
6 is in a position to work with someone who's
7 familiar with the scientific method, can ask
8 questions about the effectiveness of
9 interventions, about the root causes of
10 problems. These partners have been identifying
11 themselves and saying we're ready to become
12 part of this process. And this is a great
13 benefit of these meetings because these new
14 partners will allow better research to be done
15 and then the research to have the impact in the
16 workplace.

17 So again, thank you for being here. I'm very
18 glad to see everyone here. These meetings are
19 absolutely fascinating. The five-minute
20 timeframe that we give people tends to drive
21 people a little nuts, but it forces us all to
22 think about how we can explain what the
23 highlights are, what the major issues are, and
24 how we can tell people about those issues.
25 And I'll talk to you in a few minutes about

1 exactly what we're doing here today, what we're
2 looking for, and some of the ground rules we've
3 found useful to follow in this process.

4 But at this moment I'd like to introduce Wayne
5 Sanderson, the Director of the Great Plains
6 Center for Agricultural Health, and he has some
7 introductory remarks also.

8 **WAYNE SANDERSON, UNIVERSITY OF IOWA**

9 **DR. SANDERSON:** Thanks, Sid. Welcome everyone.
10 We're glad you were able to make it and that
11 the weather was at least reasonable. There's a
12 couple of people I want to thank in particular.
13 Many of you probably had most of your contact
14 with Kim Gordon or Colleen Grosadvani (*), who
15 really coordinated this and set this up for us
16 and did a wonderful job of organizing this
17 meeting.

18 You know, on my epitaph I'd like it to say
19 things like world's greatest dad, wonderful
20 friend, kind to animals, things like that. But
21 I'd also like it to say he worked for NIOSH
22 because I had the opportunity to be a member of
23 the NIOSH team for 24 years.

24 You always wonder and you always hope when
25 you're a member of NIOSH that these reports

1 that you slave over and get reviewed by 18
2 different people, that they do some good; that
3 they're of some value. And I think when you're
4 within NIOSH you don't really realize how
5 important that job is. And it's only now that
6 I'm on the outside that I find how incredibly
7 useful and what a great contribution NIOSH
8 makes to this country. I mean, we get all
9 kinds of questions here at Iowa. People call
10 us about proper use of respirators and how do
11 they protect their hearing, and respiratory
12 diseases, and injuries and accidents on the
13 job, how to prevent those sorts of things.
14 And invariably, the information that we give
15 them back is information that we get from
16 NIOSH. And if we can't answer those questions,
17 that's usually the first place we refer people
18 is to the NIOSH website or the NIOSH hotline
19 number, or some report that has come from
20 NIOSH. It's just incredible, as I said. I
21 think we on the outside really appreciate it
22 more than the people even internal to NIOSH
23 about how valuable this information and their
24 role is.
25 Another great thing about NIOSH is they really

1 value their partners, and hence, that's the
2 reason you're here. This is just not an
3 academic exercise, this is really important to
4 them. Having been a member of NIOSH whenever
5 they did the first NORA team in '96, '95-'96,
6 they really did listen to this. And this
7 information that they gain from the provinces
8 really did go to directing the occupational
9 safety and health research agenda, and the
10 activities for the future.
11 So they will value your comments, and we're
12 grateful that so many of you were able to come.
13 And we look forward to hearing what you have to
14 say. And now I'd like to introduce Dr. Nancy
15 Sprince, who's head of the Heartland ERC here
16 at the University of Iowa.

17 **NANCY SPRINCE, UNIVERSITY OF IOWA**

18 **DR. SPRINCE:** Thanks, Wayne and Sid. I would
19 like to welcome all of you on behalf of one of
20 the co-sponsors of this town hall, the
21 Heartland Center for Occupational Health and
22 Safety. As many of you know, as I look around
23 the room there's many faculty members and
24 students who have benefited from the Center.
25 Our Center trains and educates graduate

1 students as well as professionals in our
2 region, our four-state region, in the area of
3 occupational health and safety. And we have
4 been highly involved with NORA research and
5 research training.

6 Our Heartland Center has funded many pilot
7 grants, small grants for research training of
8 graduate students in NORA-related priority
9 areas, and these have ranged from basic science
10 studies of immune factors that cause farmer's
11 bronchitis. There's a researcher in the
12 audience who mentored one of our pilot grant
13 recipients, Dr. VonEssen, on that topic, and
14 ranged from hearing loss and preventing hearing
15 loss in swine confinement and many other topics
16 as well from the NORA priority list.

17 Many of these transcend all of the sectors that
18 Dr. Soderholm has been talking about because
19 many workers in all the sectors are at risk for
20 hearing loss, respiratory disorders, and many
21 of the other conditions, traumatic injury as
22 well that we have addressed.

23 Now, I see that we also have a distinguished
24 member in the audience, Dr. Dean Merchant, who
25 has entered, who is the Dean of our College of

1 Public Health, as well as the head of our
2 department. Another person, the head of our
3 Department of Occupational and Environment
4 Health, Dr. Craig Zwerling (*).

5 So I'd like to welcome you all on behalf of the
6 Heartland Center, and we've very proud to be
7 co-sponsors of this NORA project; the town hall
8 meeting, where we can hear from you. So I
9 should be quiet in a couple of seconds.

10 I know we see a lot of smiling faces here, but
11 I'd like to thank Professor Tom Cook, who also
12 expedited and coordinated the fact that we can
13 also have regional participants who don't have
14 to actually travel the roads of I-80 and other
15 ones today and can be here with us by
16 Illuminate Live.

17 And of course, I'd also like to thank Kim
18 Gordon and Colleen Grosadvani and welcome all
19 of our NIOSH visitors. I hope I can remember
20 everyone. We have Sid Soderholm you've met,
21 Christy Forrester, all working -- they're
22 working on the NORA agenda. Melissa Von Orman,
23 Janet Aylers (*), and of course John Tulsey (*)
24 who we work with closely in our Heartland
25 Center. And did I forget somebody? I got it

1 all, okay, good. It wasn't a senior moment.
2 Thank you very much, and we look forward to
3 your comments.

INTRODUCTION TO RESEARCH AGENDA PROCESS

4 **SID SODERHOLM, NIOSH**

5 **DR. SODERHOLM:** Well, let me talk just a little
6 bit about some of the specifics of NORA and
7 what we're doing here today, maybe a few
8 housekeeping things; when it's your turn to
9 speak, please stand here. I hear we have about
10 four microphones doing various things here, so
11 we need to be in this part of the podium.
12 Dr. Sanderson will be moderating the first
13 session, or Dr. Sprince, and they will be
14 trying to keep us on schedule. So to be fair
15 to be everyone we are allotting everyone five
16 minutes, which we realize only gives you a
17 chance to hit the highlights, but there are
18 other opportunities to put more details into
19 the docket, and I'll talk a little bit more
20 about that.

21 The NORA vision -- Another housekeeping thing
22 in case I forget to say it later, in case you
23 do have some written material, feel free to
24 leave it at the front desk. If you have a
25 couple copies, our transcriptionist, Shane Cox

1 would love to have a copy to make sure that the
2 spellings and so on are handled correctly. But
3 either the front desk or this table here would
4 be fine for handing in your written materials,
5 and we'll make sure they become part of the
6 docket, also.

7 So the NORA vision from the beginning has been
8 a national partnership effort to define and
9 conduct priority research. Well, some things
10 have changed from the first decade and now
11 we're transitioning to the second decade. But
12 many things have stayed the same. We're
13 seeking stakeholder input, we're identifying
14 research priorities, we're working together
15 with partners, we're getting a lot of partners
16 working together, and money is always part of
17 the discussion.

18 We need to, and we've had some success and we'd
19 like to have even more success leveraging funds
20 that are available, either in the private
21 sector or in other parts of the government to
22 bring them to bear, to help solve some of the
23 problems in occupational safety and health.
24 The second decade of NORA, the focus is on
25 moving research to practice in workplaces

1 through sector-based partnerships. So this
2 sector-based approach; what is it? Well, we're
3 talking about addressing the most important
4 problems in each sector, and I'll talk a little
5 bit more about this, but problems can be
6 defined in many different ways. For example,
7 we could be talking about the risks, the
8 exposures, the injuries, the diseases, or even
9 failures of the systems that are supposed to be
10 in place to protect workers.

11 The sector-based approach will have at least
12 one research strategy for each sector. And
13 many of these sectors that have been defined,
14 and I'll talk a little bit about that in a
15 minute, are very broad. And so there may be a
16 necessity of having research strategies in some
17 sub-sectors because they differ so much in the
18 kinds of hazards that they face. So we're
19 talking about having a research strategy; a
20 real plan for laying out what the problems are
21 and how we're to tackle them.

22 There are many issues that cut across sectors
23 and these were the focus of the first decade of
24 NORA, the 21 priority areas. These are still
25 there and the cross-cutting issues and the need

1 for cross-cutting research hasn't changed. So
2 there will be a lot of cross-cutting research
3 continuing on the second decade of NORA, but
4 we're structuring it in terms of the sectors.
5 So why do we think this sector-based approach
6 might work, might be an improvement?
7 Workplaces are organized by sectors. There's
8 any number of times in conversations we've
9 talked about agriculture in Iowa, which is only
10 one of the sectors in Iowa, but it's certainly
11 an important one. And people tend to think of
12 themselves, I'm in agriculture. So workplaces
13 are organized by sector.
14 Many research needs are similar across sectors,
15 but many differ by sector. The sector approach
16 we think will really focus where we'll talk
17 about having a research goal for reducing a
18 particular hazard in the workplaces. We'll
19 have objectives and intermediate goals to where
20 success in meeting those intermediate goals
21 will add up to success in meeting the overall
22 goal. And the results are really focused so
23 our partners can be on board, help plan the
24 research, be ready to accept the results, and
25 move them into the workplace. So we think this

1 is going to be an efficient approach. And in
2 ten years we'll have an opportunity to refine
3 it even more, if there's more refinement that's
4 needed.

5 So this structure of NORA going forward is in
6 terms of research counsel, sector research
7 councils. In somewhat abbreviated form, you
8 can see some titles for the eight sectors in
9 the ovals on the outside of this diagram.
10 These sector definitions are from the North
11 American Industrial Classification System,
12 which is the system that is used by the United
13 States, Canada, and Mexico to identify and
14 categorize work places; the types of work that
15 companies do.

16 There are 20 or 21 sectors on the census
17 website when you look. And so we have grouped
18 some of them to make a more manageable set of
19 eight sector groupings, really, where we will
20 have a research counsel in each sector group.
21 The research counsel will consist -- there will
22 be a NIOSH leader and a stakeholder leader, a
23 non-NIOSH person. And the membership will
24 probably be, maybe, one third NIOSH and
25 probably on the order of two-thirds non-NIOSH

1 people. So it's definitely a national effort,
2 it's not just a NIOSH effort. These research
3 councils, I'll talk a little more about in a
4 minute, will become the focus of the NORA
5 activities after we complete this period of
6 town hall meetings and accepting stakeholder
7 input.

8 The role of NIOSH is one of stewardship and
9 providing infrastructure. NORA is not our
10 program. It wouldn't go forward without us and
11 without our support, we realize that. We're
12 certainly responsible for providing leadership,
13 but the decisions that come out of NORA are
14 really based on nationwide input and decision
15 making that's being done by people from around
16 the country, not just in NIOSH. And then NIOSH
17 and others can take those research strategies,
18 pick out the parts that can be done best by
19 each organization, and move forward.

20 So the research counsel will have diverse input
21 and we feel this will lead to robust research
22 strategies. Some of the initial work of the
23 sector research councils will be front and
24 center to take the stakeholder input, but also
25 to take surveillance data, you know,

1 information that we have, statistics we have
2 about what the problems are and where those
3 problems are occurring, and also the expertise
4 of the members on the panel and the people who
5 contact them and are in contact with them.
6 So all of this input will go through a
7 priority-setting process that will result in a
8 draft research strategy. So this draft
9 research strategy will have strategic goals,
10 intermediate goals, and plans for that research
11 to be conducted, plans to encourage funding of
12 that research. And in the end, set up
13 opportunities for the research results to be
14 disseminated, to be taken into workplaces where
15 they can be most effective in reducing hazards.
16 So how can you participate? Provide your
17 input, that's why we're here today. Also, you
18 can volunteer to be part of the process. So
19 what's going to happen to your input? Well,
20 it's going to be entered into the NORA docket.
21 There are many ways to do that. You see
22 there's a website address here,
23 www.cdc.gov/niosh/ and NORA link that will
24 allow you to learn about NORA, will allow you
25 to put text comments right into the website.

1 You submit them to the website and that then
2 generates internally to the system an email
3 that is put in the NORA docket. And the really
4 nice thing about this is that after checking to
5 make sure we're just not getting, you know,
6 some nonsense comments, that it's actually
7 English language comments that -- Well, I mean,
8 other languages are fine, but that they're
9 actually understandable comments that have some
10 relationship to NORA, then those comments are
11 okayed for display on the website.

12 If you go into the website and if you've been
13 there you see there's a text box where you can
14 enter your comments. Just to the left is
15 something that says view comments by others,
16 and you'll see what others have been saying
17 about the research priorities and the
18 partnerships that need to go into the next
19 decade of NORA.

20 In fact, due to Christy Forrester's hard work
21 you will begin to see the information that's
22 been given at town hall meetings captured in
23 the transcript. That's now been entered into
24 the docket through the website, and so you can
25 see that information on the website.

1 But there are other ways to provide input. The
2 website gives -- and some of the information
3 provided here today gives an e-mail address.
4 If you have graphics or something more
5 extensive to hand in than just text then you'll
6 need to use the e-mail address, and of course
7 the US Postal System still works very well, and
8 we have a mailing address, also, so you can put
9 material into the docket.

10 So what you say today will be captured and will
11 go into the docket. That will then be provided
12 to the NORA sector research councils. They
13 will get every word, they'll get the individual
14 comments, but in order to help them sort
15 through it we will have done some indexing,
16 some categorization, so they can -- If they're
17 particularly interested in one sector or an
18 issue within a sector they can find out what
19 people have said on that issue.

20 The input will be outlined at the NORA
21 symposium. The first ten years of NORA really
22 ends late April 2006, and we're having a
23 symposium in Washington, D.C. The researchers
24 hopefully have gotten the message and were able
25 to submit an abstract for a poster to take part

1 in this symposium. But the symposium will also
2 have a set of workshops where we'll do some
3 initial processing, some summarizing of what's
4 gone into the docket, and to some extent some
5 multi-voting, some initial priority setting for
6 the group assembled in the workshop to get some
7 initial ideas of what that group feels some of
8 the priorities are. And then that will be
9 additional input as the NORA research councils
10 start meeting shortly thereafter.

11 So there is a website listed to find out more
12 about the symposium. The early registration --
13 the cheapest registration fee ends March 1st.
14 So if you're interested, I encourage you to go
15 to the website soon and take a look at it.

16 So what kinds of information are we looking
17 for? As I mentioned, we're interested in what
18 you think the major issues are, the top
19 problems. It could be injuries, diseases,
20 exposures, populations at risk, failures of the
21 system, or you may define it in other ways.

22 What are some of the key partnerships? Who
23 should researchers be working with in order to
24 accomplish the research and have it have an
25 impact? We're really, you know, looking for

1 your ideas on what research will make a
2 difference, will have that impact.
3 We're asking for very brief presentations. And
4 as I mentioned, we're very interested in your
5 more detailed information, and please do e-mail
6 that to the docket or leave a copy here and
7 we'll make sure it gets into the docket.
8 The last point is that we ask you to -- We're
9 not really here to have a dialogue or a debate,
10 we're here to hear everyone. So we ask people
11 to avoid criticism of other presenters, but
12 listen, reflect. We have speakers who have
13 signed up ahead of time to speak. I'm sure
14 we'll have time and we will be asking others to
15 stand up and speak. And whether you've heard
16 something you like or don't like, want to offer
17 an opinion that may be similar to or different
18 that something else that's been offered, or you
19 know, on a totally different subject, we would
20 love to hear your views.
21 So again, thank you. A couple of closing
22 notes. If you want to keep up with what's
23 happening in NORA, NIOSH in general in fact,
24 register for the NIOSH eNews. This is a
25 newsletter that comes to your e-mail, your

1 inbox once a month. If you're too busy it's
2 easily deleted, but there are -- We all do a
3 lot of that, right, delete things that come in
4 and we don't have time for. But there are one
5 or two-hundred word summaries of a lot of
6 things that are going on in NIOSH; all of the
7 work that's being done with partners such as
8 the Centers here. Specifically, there's news
9 every month about what's happening in NORA;
10 just a quick summary, some links, and some ways
11 to find more information. So I'd encourage you
12 if you don't already, to sign up for eNews. If
13 you go to this website, again the NIOSH
14 website, and look for the eNews link, and just
15 put in an email address, that's all that's
16 required. And you can easily unsubscribe if
17 you want to do that later, but put in
18 additional input through the website, through
19 the NORA website. You can also learn about the
20 symposium there.

21 And one of my jobs is to answer questions. So
22 I have cards out on the front table with phone
23 numbers and email addresses. This one's easy
24 to remember, noracoordinator@cdc.gov. Send me
25 an e-mail and I'll be glad to try to answer

1 your questions.

2 So this screen just went blank, but that one
3 didn't. I'm done with my talk. So at that, we
4 will move forward and whichever, Dr. Sanderson,
5 Dr. Sprince, I'll ask them to start moderating
6 the session, and we'll get to the interesting
7 part; we'll get to listen to you. Thank you.

REGIONAL AND LOCAL SESSION STAKEHOLDER PRESENTATIONS
MODERATORS: WAYNE SANDERSON AND NANCY SPRINCE,
UNIVERSITY OF IOWA

8 **DR. SANDERSON:** Thank you, Sid. Our first
9 speaker is quite a renaissance man. John
10 Lundell works with our Injury Prevention
11 Center, as well as our fatal accident -- I
12 forget what FACE stands for. I'll let him tell
13 you. Besides that, he's also a city councilman
14 for Coralville, Iowa, here in the region, which
15 is a really active community. John?

16 **MR. LUNDELL:** Thank you, Wayne. Yes, I am John
17 Lundell, and I'm the Deputy Director of the
18 University of Iowa Injury Prevention Research
19 Center. I'm also a co-principal investigator
20 on the NIOSH funded Iowa FACE program. I'm
21 here today to speak on the huge public health
22 toll caused by occupational injuries and why
23 their prevention should be a priority area on
24 NIOSH's research agenda.

1 Every day, 16 workers in the United States are
2 killed on the job by traumatic injuries. More
3 than 5,700 workers were killed in 2004, and
4 here in Iowa 89 workers were killed by injuries
5 that year. And of course, the number of
6 workers with nonfatal injuries are many times
7 greater than the numbers who are killed.
8 Let me begin by describing the NIOSH FACE
9 program, and how it is improving the health and
10 safety of America's workers. The NIOSH
11 Fatality Assessment and Control Evaluation
12 Program is a research program designed to
13 identify and study fatal occupational injuries.
14 The goal of the FACE Program is to prevent
15 occupational fatalities across the nation by
16 identifying and investigating work situations
17 at high risk for injury, and then formulating
18 and disseminating prevention strategies to
19 those who can intervene in the workplace.
20 The FACE Program has both a NIOSH in-house
21 component, as well as state-based programs such
22 as the one here in Iowa. Currently, there are
23 14 other state-based FACE programs, besides the
24 one here.
25 Since 1995, the University of Iowa has operated

1 the Iowa FACE Program under a subcontract with
2 the Iowa Department of Public Health in Des
3 Moines. The Iowa FACE Program is organized
4 around three specific gains; to conduct
5 comprehensive occupational fatality
6 surveillance, to conduct rigorous
7 investigations of priority cases, and
8 formulating and widely disseminating prevention
9 strategies.

10 The FACE team here at the University of Iowa is
11 comprised of a wide variety of disciplines,
12 including an occupational physician, an
13 industrial hygienist, an agricultural engineer,
14 a product safety engineer, and an injury
15 control specialist.

16 At the health department we work quite closely
17 with the Director of Forensic Operations in the
18 Office of the State Medical Examiner. This
19 multi-disciplinary approach enhances the
20 ability of the Iowa FACE Program to undertake
21 highly technical investigation of specific
22 cases.

23 Through a wide variety of notification
24 mechanisms, including first responders and law
25 enforcement, news media, and colleagues, our

1 goal is to identify every worker killed on the
2 job. We then follow up each of these incidents
3 by contacting public safety officials and
4 others, to collect baseline information.
5 From this surveillance system, we develop a
6 comprehensive profile of fatal occupational
7 injuries in our state. Over the past five
8 years the victims were 97 percent male, 27
9 percent were over 60 years of age, and 40
10 percent were involved in agriculture. Further
11 analysis indicates that agricultural-related
12 fatalities tend to be over represented in both
13 the youngest and oldest age groups.
14 Over the past five years, two-thirds of the
15 fatal occupational injury victims in Iowa were
16 under the age of 18 who had been killed working
17 in agriculture. Similarly, during the same
18 period over 80 percent of the victims over age
19 70 were working in agriculture.
20 Using priorities established by NIOSH for state
21 programs we then select specific incidents to
22 conduct in depth on-scene investigations in
23 order to analyze the circumstances of the fatal
24 injury. More importantly, we develop
25 recommendations aimed at preventing similar

1 events from occurring in the workplace. Since
2 the year 2000 we have conducted 53 in depth
3 investigations.

4 The final phase of Iowa's Program is the broad
5 dissemination of these preventive strategies.
6 Our Program truly believes in the NIOSH
7 research to practice initiative. We have taken
8 our FACE Program on the road, making numerous
9 presentations at symposiums and professional
10 meetings, as well as published an impressive
11 list of related articles in the peer-reviewed
12 literature.

13 But what makes the Iowa FACE Program unique and
14 we believe effective is our emphasis on
15 publishing in the trade literature. During the
16 past several years we have published FACE
17 investigations in trade journals such as
18 Wallace's Farmer, Professional Safety, American
19 Towman, Arbor Age, World of Welding, Waste
20 News, and Successful Farming. I was just going
21 to show some slides showing these publications.
22 We have found the trade publications very
23 receptive to printing our FACE investigations,
24 and believe that this mechanism places the
25 preventive recommendations in the hands of the

1 most important readers, the managers and the
2 workers in the industry described in the
3 report.

4 These magazines are frequently found in waiting
5 areas, lunch rooms, and break areas where
6 employees have time to peruse them. Similarly,
7 agricultural-related publications such as
8 Wallace's Farmer or Successful Farming are read
9 by most Iowa farmers and their families.

10 It is human nature to be interested in reading
11 about workers in similar situations who have
12 been killed on the job. We strongly believe
13 these FACE related articles with preventive
14 messages have the potential to influence worker
15 behavior. In addition, we make ample use of
16 media releases, when appropriate, and maintain
17 an informative website to disseminate our
18 prevention message.

19 In closing, I urge you to include occupational
20 injury surveillance and specifically the FACE
21 program in your NORA recommendations. Thank
22 you for this opportunity to speak before you
23 today.

24 And now I'll just take a minute to run through
25 some of the fabulous publications that we're

1 proud to have authorship in. American Towman;
2 we've published an article about -- We've
3 actually published twice in this magazine
4 related to fatalities related to the towing
5 industry. There is one of them (indicating),
6 that was a double fatality that occurred up on
7 Boone, Iowa. Arbor Age; we've also published
8 twice in there. This was an article about a
9 cherry picker that collapsed. It was old and
10 should not have still been in use. World of
11 Welding; published twice in there. This was an
12 article about -- I believe he was welding on a
13 barrel that exploded. Wallace's Farmer;
14 published a number of times in there. This was
15 a very well-received article, very sad and
16 tragic. These all have tragic stories about a
17 farm wife that was killed by a grain wagon.
18 And Professional Safety; we won an award on
19 this particular investigation that had to do
20 with a crane that was assembling a water tower
21 that collapsed and killed a worker. And
22 wonderful World of Waste News; we published
23 about a garbage truck operator who was killed.
24 That's just a sampling of what we believe is
25 the effective way to reach the workers who need

1 to hear this message from the FACE Program.
2 Thank you.

3 **DR. SANDERSON:** Thank you, John. That was very
4 informative. Our next speaker is Dr. Chuck
5 Lynch. Is Chuck still here?

6 **DR. SPRINCE:** He stepped out, Wayne.

7 **DR. SANDERSON:** Oh, did he step out? Okay. He
8 wanted to be squeezed in and this was a great
9 time to squeeze him in. We'll catch him a
10 little later. In that case I'm going to move
11 to our third speaker then, which is Dr. Craig
12 Zwerling, Head of the Department of
13 Occupational and Environmental Health, also
14 wears a number of other hats. And he's going
15 to be talking about workplace violence in
16 particular.

17 **DR. ZWERLING:** Thank you, Wayne. I'm actually
18 here representing Dr. Corinne Peek-Asa, who
19 prepared some remarks on workplace violence and
20 then was unable to come and deliver them. So I
21 agreed to come and deliver them for her.
22 Violence in the workplace has been recognized
23 as an important occupational and public health
24 issue only within the last 25 years. In these
25 past 25 years, we have estimated the scope of

1 the problem, we have identified violent hazards
2 in different industries, and we have described
3 factors that place some employees at greater
4 risk over others.

5 In this same period over 20,000 workers have
6 been homicide victims, and an estimated 25
7 million have been victims of violence at work.
8 We have not yet done enough. The work to
9 reduce violence in the workplace has just begun
10 and the most important steps are yet to be
11 taken. Research that identifies the most
12 effective and comprehensive strategies to
13 reduce violence needs to be conducted.

14 Evaluation studies need to use rigorous
15 methodologies with sufficient power to detect
16 program and outcome effects.

17 We need to understand and motivate employers to
18 take on the issue of workplace violence
19 prevention, and to provide employees with the
20 information and tools to make good decisions.

21 We need to move beyond associating basic
22 typologies of workplace violence with specific
23 industries, and identify the components of
24 comprehensive approaches that can address all
25 types of violence. We need to identify how the

1 workplace fits into the larger social agenda of
2 safety and security.

3 Acquiring this knowledge will require
4 resources, partnerships, and collaboration.

5 NORA 2 will work to remediate the most
6 important occupational hazards and fill gaps in
7 the occupational health programs.

8 Addressing the safety of workers who work in a
9 climate of fear and risk for violence should be
10 one of the most prominent roles included in
11 this effort.

12 That's the end of her remarks. You might be
13 asking yourself why faculty at the University
14 of Iowa are so interested in workplace
15 violence. Fifteen years ago this coming
16 November, a disgruntled graduate student bought
17 a handgun and went on a shooting spree and shot
18 and killed three faculty members, shot and
19 killed a fellow graduate student, killed a vice
20 president of the university, and shot and
21 rendered quadriplegic, a young secretary.

22 These events had a tremendous effect on all of
23 us who live and work on this campus, and led to
24 our beginning to explore the issue of workplace
25 violence. Together with our colleagues from

1 NIOSH and other stakeholders, we convened a
2 national symposium on workplace violence, which
3 resulted in a report on workplace violence and
4 the things that needed to be done to address
5 workplace violence. That report was quite
6 successful. Senator Tom Harkin was
7 particularly touched by it because he was
8 touched by the events that happened on this
9 campus, and he led an effort in congress to get
10 the special allocation of funds to NIOSH to
11 nourish researching workplace violence.
12 We think that the research in the field has now
13 gotten to the point where we have interventions
14 that can be tried out in the field and
15 evaluated. And we think that's the most
16 important next step to be taken, and we hope
17 that there will be room in NORA 2 to include
18 that material. Thank you.

19 **DR. SANDERSON:** Thank you, Craig. Next speaker
20 is Dr. Tom Peters, who is also a fellow Tar
21 Heel along with our Dean. I think we have a
22 little North Carolina cabal going here. Tom's
23 going to talk to us about ventilation issues.

24 **DR. PETERS:** Good morning. I have a
25 presentation, but I have no keyboard. I'd like

1 to talk to you today about building
2 ventilation; workplace respiratory system.
3 We've all appreciated the need for ventilation.
4 This wonderful 16th century wood carving
5 depicts a workplace described by Pliny the
6 Elder in ancient Rome. The two workers in the
7 center of the picture wave a linen cloth to
8 move clean air to and contaminated air away
9 from a digger. This ventilation delayed the
10 development of workplace disease, although most
11 of the people who dug in ancient Rome died of
12 workplace disease.
13 Modern ventilation, we've come a long way.
14 Modern ventilation systems are everywhere. I
15 see supply air grills in this room. I see
16 intakes to move contaminated air away from us.
17 They provide us with clean air and they remove
18 contaminants; nothing has changed there.
19 We have gotten a little bit more adept at
20 installing these systems, and they help our
21 respiratory system prevent occupational
22 illness.
23 However, if we look at the life cycle of a
24 ventilation system, it's quite strange. We
25 install them, they get up above the ceiling,

1 and we never look at them again until there's a
2 complaint or there's an occurrence of a
3 disease, or some other threat such as Anthrax
4 in senate office buildings.

5 Immediately after installation the burden of
6 occupational illness switches -- gradually
7 switches from the ventilation system back to
8 our own respiratory system; so new research is
9 needed. This is a quote from Mel First in
10 1984. He said that the industrial hygiene
11 profession is still living off of Delvals' 1930
12 and Silverman's 1942 doctoral thesis for its
13 entire body of ventilation theory. We
14 desperately need a new infusion of science and
15 engineering.

16 Well, my Ph.D. work at North Carolina was on
17 ventilation ducts and particle transport. I
18 was shocked at the dearth of literature that
19 exists in our journals and any research that's
20 funded at a national level. My work was funded
21 by Ford Motor Company. It won an award for the
22 best dissertation in the School of Public
23 Health at the University of North Carolina.
24 Since arriving at the University of Iowa, I've
25 tried to submit grants for national support,

1 but found it very difficult to have things
2 funded on this type of research. I get
3 comments such as it's not significant. It's
4 too practical. So I've moved to hot topics,
5 such as exposure assessment of nano particles
6 and the health effects of diesel exhausts.
7 These are important problems too, and I'm
8 really excited about working on them. However,
9 I think it's a shame that we don't have some
10 national support for these things that are also
11 very important.

12 So basically my message is pretty simple, and I
13 suppose that my message fits under the category
14 of identifying failures in the system. I
15 suggest that the next NORA should add
16 ventilation systems by name as cross-cutting
17 issues in all sectors, and I think that the new
18 NORA should add language to heighten the
19 significance of work in this important area.

20 I believe that these changes would provide
21 national support for researchers like myself,
22 who seek to keep our building respiratory
23 system brunting (*) the burden of occupational
24 illness. Thank you.

25 **DR. SANDERSON:** Our next speaker is Dr. Bill

1 Heitbrink. Bill, also a fellow NIOSHer, is
2 going to speak to us this morning about control
3 issues in industry.

4 **DR. HEITBRINK:** Good morning, my name's Bill
5 Heitbrink. I'm an Associate Professor in the
6 Industrial Hygiene Program here at the
7 University of Iowa. But before I came here in
8 2001, I didn't really work as an industrial
9 hygienist I worked as an engineer working in
10 occupational safety and health for NIOSH.
11 One thing I wanted to talk about that I think
12 NIOSH should support both internally and
13 externally is the ability of occupational
14 safety and health researchers to work with
15 equipment manufacturers, so that we have
16 control measures for various occupational
17 injuries and illnesses built into the
18 equipment.
19 My latest experience has been working on cabin
20 filtration systems. These systems cut across
21 agriculture and surface mining. In
22 agriculture, we've got issues of high dust
23 exposures during combining, pesticide
24 application. In surface mining, the issue is
25 silicosis, a very dangerous respiratory

1 disease.

2 I think NIOSH needs to fund this work, both
3 internally and externally. It offers several
4 major advantages to the workers. One, think
5 about a combine or cabin filtration on the
6 surface mining vehicle. If we've designed the
7 thing right the worker gets into the cab and
8 he's protected. He may not even -- Worker
9 acceptance may not be an issue because the
10 control is so inherent to the design of the
11 product that the worker may not even be totally
12 aware that he's being protected. He does not
13 have to put on a respirator. That -- as I will
14 discuss later -- has several advantages and
15 disadvantages.

16 Basically, when we fund research in this area
17 it needs to go into health product development,
18 but it also needs to help develop engineering
19 standards for product specifications. This can
20 involve some very implied research that answers
21 questions that need to be answered, so that you
22 can develop adequate testing procedures that
23 are needed to make sure that the control
24 measures actually work.

25 The occupational safety and health community, I

1 believe, can assist manufacturers in a couple
2 of ways. One, we can perform in situ
3 evaluations of control measure performance,
4 both to answer the question, does the control
5 measure initially work and a more important
6 question when you think about the length of
7 time that agricultural equipment will be in the
8 field, does this equipment continue to work
9 over the long term?

10 As Wayne had pointed out in some of his
11 research in Iowa we have tractors that are
12 functioning for 40 years. So, does the ROPS
13 really work for 40 years? Does the cabin
14 filtration system work for 40 years?

15 As we all know if we own automobiles -- when
16 was the last time you were able to run a car
17 for three or four years without maintaining it
18 and not getting into trouble? Clearly, there
19 are many practical issues that need to be
20 addressed.

21 In doing this research I think manufacturers
22 may end up being good partners, but we also
23 have to understand many of the practical issues
24 that manufacturers face. In dealing with a
25 consensus standard on cabin filtration systems

1 that was eventually withdrawn, product
2 liability was an issue. The manufacturers
3 could only control the equipment until it
4 leaves the factory floor and is sold to the end
5 user. And then the practical issue is how long
6 will this equipment work? How do we integrate
7 the use of this equipment into a comprehensive
8 safety and health program? What sort of steps
9 do we need to take to make sure that this
10 equipment continues to provide useful hazard
11 control over the entire life of the product?
12 All of these are issues which need to be
13 addressed and unless we address them,
14 ultimately, the implementation of control
15 measures will fail because they will initially
16 work, and then later on as Tom found it on
17 ventilation systems, they will ultimately fail.
18 So with that, I rest my case. And hopefully
19 Mr. Job, who's retired actually from AGCO, can
20 talk about details pertaining to the cabin
21 filtration system standard.

22 **DR. SANDERSON:** Thank you, Bill. That's a
23 perfect segue into Mr. Richard Job's
24 presentation. This will be our first attempt
25 this morning using the Illuminate System. We

1 have 16 participants listening in. Great.
2 While we try and work out our difficulties
3 here, our next speaker is Mr. William Butcha.
4 Is he here? No. Okay. How about Chuck
5 Jennisen? No Chuck Jennisen or William Butcha.
6 I don't see Shari in the audience from Farm
7 Safety 4 Just Kids.

8 **DR. SPRINCE:** Wayne?

9 **DR. SANDERSON:** Yes.

10 **DR. SPRINCE:** I might suggest Susanna VonEssen,
11 who wanted to be added to our list.

12 **DR. SANDERSON:** Great. Excellent. Dr. Susanna
13 VonEssen from the University of Nebraska.

14 **DR. VONESSEN:** Thank you for providing me with
15 this opportunity. I'm speaking on behalf of
16 Dr. Terry Stentz from the University of
17 Nebraska at Lincoln. He is a human factors
18 engineer on the faculty there, and does
19 research on meat packing-related injury in
20 particular he's interested in lacerations and
21 cumulative trauma. And he is funded by NIOSH
22 to do work on lacerations in this setting
23 together with collaborators at Harvard. And he
24 cannot be here today, so he kindly provided me
25 with some slides and invited me to give this

1 presentation.

2 This is a great example, I think, and I'm
3 familiar with this environment. I'm interested
4 in occupational health in general, not only
5 respiratory problems, but I think this is a
6 wonderful example of how NIOSH resources have
7 provided funds to look at a very important
8 problem.

9 The people who work in meatpacking have a 3.5
10 times greater risk of traumatic acute injury
11 than do people who work in other sectors.
12 Lacerations are very, very common despite
13 extensive use of personal protective equipment.
14 The plant I'm going to talk about, or the
15 plants -- there's actually three of them in
16 this region have state-of-the-art safety
17 programs, state-of-the-art safety equipment in
18 place, and there's a big problem with that in
19 spite of this.

20 This is a pork processing facility
21 (indicating), one of three. There's one in
22 Nebraska, Iowa, and one in Illinois. They
23 graciously have been welcoming to investigators
24 who want to help them improve their safety
25 programs, and this has been a very fruitful

1 relationship.

2 The Fogus Plant has 1,200 employees. They run
3 five to six days a week, two shifts of kill and
4 process, and they clean the plant in the night
5 shift. They process up to 9,000 hogs per day.
6 One of the huge challenges in this area is
7 working with people who do not speak English as
8 a first language. At this particular plant,
9 anywhere from nine to twelve languages are
10 spoken as a first language by these
11 individuals. The main one is Spanish, but
12 there are a number of other ones.

13 This plant does have established safety and
14 ergonomics programs. And in spite of that for
15 lots of reasons, there's a very, very high
16 worker turnover. This makes it very
17 challenging to have effective safety programs
18 and to keep the plant functioning optimally.
19 There's lot of issues, one of them is many
20 different types of cutting tools are used, both
21 powered and non-powered. This is just one
22 example of this kind of work environment
23 (indicating).

24 These people are working on a cold side of the
25 plant. It's really quite cold there. The

1 temperature's in the high 30's; so people's
2 hands tend to become stiff and that just makes
3 it that much more likely for them to become
4 injured.

5 Dr. Stentz and colleagues conducted a
6 retrospective descriptive analysis of
7 laceration injuries for nine plant years, and
8 they used this analysis to underpin a major
9 research grant proposal. Also, the results
10 resulted in a publication, which came out last
11 year. And I'm happy to say that grant proposal
12 has recently been funded.

13 They used OSHA 200-log injuries. First
14 reported the accident/injury forms, and then
15 the plant production operations information,
16 and worked very closely with the plant safety
17 officer. And they analyzed demographic
18 information about worker populations, in
19 addition to the information that was available
20 from the log itself, and did calculations
21 looking at person hours by plant, department,
22 year of incident, et cetera. They found that
23 the first report of injury was not always
24 entirely complete. There were some of the
25 issues. No PPE use documented -- they did not

1 -- the people who filled out the forms did not
2 always indicate how much time had elapsed from
3 the beginning of the work shift to when the
4 injury occurred, and the description of the
5 work activity at the time of injury was
6 incomplete. Understandable when you see how
7 busy these plants are, how busy the nurses are,
8 but it makes it difficult to reconstruct what
9 happened and how this can be avoided.

10 They had a large number of cases, the majority
11 were men. That may be in part because of the
12 division of jobs in a meatpacking plant. The
13 kill side of the plant is usually where men
14 work, and that is where the majority of the
15 injuries occurred.

16 The majority were lacerations and there were
17 however a variety of other injuries reported.
18 And again, missing data was a huge issue. A
19 number of the people -- if you look at the
20 bottom line -- actually a fair percentage of
21 people who got hurt were on the job for less
22 than one week. So that's where the worker
23 turnover becomes a big issue.

24 The laceration cases were a substantial portion
25 of the OSHA 200-log cases, so that was

1 definitely an important problem for them to
2 address. And that was true for all the plants,
3 even though they differed slightly in their
4 approach to the slaughter and processing
5 aspect.

6 The rate has fallen since 1998 in their
7 analysis, but it's still considerable. As I
8 said, it varies quite a bit. Plants Two and
9 Three are not kill plants. Plant One, is one
10 where the entire range of activities occurs in
11 reference to pork processing.

12 So possible risk factors for these injuries,
13 PPE use, time of day, people get tired and they
14 did notice -- I didn't have time to present
15 but, more injuries in a certain time of day.
16 Experience, were people current on being
17 trained appropriately or had they been
18 transferred to a new department because someone
19 didn't come to work that day, also things like
20 the wrap-up speed. The lines have gotten
21 faster and faster over the years and for some
22 people it's just too fast for them to work
23 safely. Were there enough rest periods? These
24 people have a 15-minute rest period in the
25 morning and the afternoon and a half hour for

1 lunch, which isn't really a whole lot if you're
2 doing fairly physical work.

3 They looked at day of the week, and then
4 production bottlenecks, new equipment and
5 product-line problems, et cetera, being
6 factors; and then finally training issues and
7 language barriers.

8 So again, this is a great example of the
9 research that NIOSH is funding and I hope that
10 it's possible to continue doing this work,
11 extending it to other aspects of problems
12 related to the occupational environment in the
13 meatpacking industry. Thank you.

14 **DR. SANDERSON:** Our next speaker is Dr. Lynch,
15 who has joined us here.

16 **DR. LYNCH:** I perform research in the area of
17 agriculture in Iowa, particularly the health
18 and safety of Iowa's farming population. My
19 primary research activity in this area is
20 through the Agricultural Health Study, a
21 prospective cohort study of 90,000 Americans,
22 composed of farmers, spouses of farmers, and
23 commercial pesticide applicators from the
24 states of North Carolina and Iowa.

25 Over 58,000 of the studies' participants come

1 from Iowa. The activities of farmers in Iowa
2 are broadly representative, especially of the
3 Midwestern United States. Common exposures
4 experienced by this population include
5 pesticides and fertilizers, fuels and oils,
6 engine exhausts, zoonotic microbes, organic
7 solvents, paints, grain dust, welding fumes.
8 Health outcomes associated with farming include
9 injuries, Parkinson's disease, and other
10 neurologic conditions, musculoskeletal
11 diseases, reproductive and developmental
12 outcomes, immunologic effects and autoimmune
13 diseases, respiratory diseases and cancers;
14 particularly lymph, stomach, brain, prostate,
15 connective tissues, skin, leukemia, lymphoma,
16 and multiple myeloma.
17 These common exposures and diseases experienced
18 by the agricultural sector are not unique to
19 them. The urban population of the United
20 States shares them also, and stands to benefit
21 from the research knowledge gained from the
22 agricultural sector.
23 Many of the diseases I previously spoke of are
24 classified as chronic diseases. For these
25 chronic diseases we still have poor

1 understanding of their relation to the common
2 exposures experienced by the farming
3 population. I request that NIOSH continue to
4 include in its National Occupational Research
5 Agenda the pursuit of an improved understanding
6 of mechanisms relating exposure to health
7 outcomes in the farming occupation. Two
8 particular challenges are exposure assessment
9 and genetic susceptibility. Regarding exposure
10 assessment, how can we better measure or
11 quantify the common exposures experienced by
12 this population?

13 A good example here is pesticide exposure.
14 This improved assessment is particularly needed
15 when research needs to account for the long
16 latent period associated with the chronic
17 diseases experienced by farmers. Second, what
18 is the role of genetic susceptibility factors?
19 In particular, how do they increase risks of
20 the chronic diseases experienced by farmers?
21 Thank you.

22 **DR. SANDERSON:** We'll call once again for
23 William Butcha or Chuck Jennisen. Okay. We're
24 at a good point then to take a break. I think
25 maybe we can work out some of our technical

1 difficulties and before we launch into the next
2 section how about if we take about a 15-minute
3 break or so and convene again at 10:30. There
4 are refreshments right outside the door here.

5 (Whereupon, a recess was taken from 10:15 a.m. to
6 10:35 a.m.)

7 **DR. SPRINCE:** While we're waiting for some more
8 participants to join us on the Illuminate, I'd
9 just like to thank everybody for coming and
10 sharing your thoughts and comments. I found
11 them quite informative, and I know that our
12 NIOSH colleagues have as well. And hopefully
13 they will help the national research agenda in
14 occupational health and safety.
15 It's important for NIOSH to be able to know
16 which stakeholders they have reached. And I
17 know we have a sign-in sheet at the front desk.
18 I don't know if everybody has had the
19 opportunity to sign in, but we would appreciate
20 it if you could. If you haven't as yet, please
21 sign in, so that -- We promise you won't get
22 any junk mail or anything as a result of this,
23 but we would like to just keep track of the
24 people in the various sites that the town hall
25 meetings are held in as to which stakeholders

1 were able to participate in the audience or
2 giving some type of comments to share.
3 And I have understood -- I hear that some of
4 our participants who were not here this morning
5 might be here now. And as soon as we're ready
6 to do that, I will call on Dr. Jennisen, who
7 maybe will begin to make his way up to the
8 podium here, and wonder if any of the other
9 people from the previous sector -- Is this
10 Dr. Butcha or Dr. Butcha? No. Well, should we
11 go ahead then or have Dr. Jennisen wait a
12 moment?

13 **MR. COOK:** Let's just give it 30 seconds.

14 **DR. SPRINCE:** I can say a few more words about
15 the Heartland Center participants who are here.
16 We have several students in the audience who
17 participated in our training course, and many
18 of them have been involved in research in
19 Occupational Health and Safety topics.
20 And we also have some of our core directors
21 from the Heartland Center who have been mentors
22 and guides for faculty and students in our
23 programs, including Dr. Ken Culp, the
24 Occupational Health Nursing Core, who will be
25 speaking to us later, Dr. Dave Wilder, who's

1 involved in our Occupational Ergonomics Core,
2 who will also be speaking, Kim Gordon is the
3 head of our Continuing Education and Outreach
4 Activity and she spent a lot of time with
5 educating regional professionals and others in
6 the area of how do we take this research and
7 apply it to your everyday practice? So
8 actually sort of like the FACE people getting
9 information into the trade journals where
10 people actually read them on the ground. She
11 has been very involved along with her
12 colleagues in making sure that the continuing
13 education and outreach that we provide in
14 occupational health and safety gets our
15 research findings -- and you can see a lot of
16 exciting research going on -- into the hands of
17 practicing people who can make a difference
18 with worker health and safety in the many
19 workplaces in our region and around the
20 country. So, have I stalled long enough?

21 **MR. COOK:** You did well. We have all 16 of our
22 remote participants listening in.

23 **DR. SPRINCE:** Very good. Well, welcome to them
24 all and I'll get off the podium and have
25 Dr. Jennisen present his remarks.

1 **DR. JENNISEN:** Thank you. Well, my name's
2 Chuck Jennisen and I'm a pediatric emergency
3 medicine physician and a faculty member of the
4 University of Iowa College of Medicine in the
5 Department of Emergency Medicine. And I've
6 always had a great interest in
7 agricultural-related injuries and in health
8 problems, having grown up on a dairy farm in
9 central Minnesota, and seeing a lot of the
10 injury-related problems that occur in
11 agriculture, in the emergency department.
12 And I received a number of e-mails about this
13 town meeting occurring and I felt it was really
14 important for me to come and say a few comments
15 about what I thought was important as far as
16 research in the future for occupational safety
17 and health and particularly about agriculture.
18 I think everyone probably realizes that
19 agricultural-related injuries is -- Well,
20 agriculture is one of the most dangerous
21 occupations. And because of this, of course,
22 it is important for us to continue to fund
23 research in decreasing agricultural-related
24 injuries and health-related problems.
25 And I would like to talk a little bit more

1 about how it's very important to keep in mind
2 the youth that work on farms, and the research
3 to identify why they have problems, and have
4 injuries on the farm, and how we can take the
5 research that we do know and put it into
6 practice and get it out to families who are
7 working on the farm.

8 One of the big problems that we run in
9 agriculture, agricultural-related research is
10 that we have a difficult -- really identifying
11 the number of injuries and even maybe worse the
12 health kind of problems that people suffer
13 being on a farm.

14 Most farms are not regulated by federal rules,
15 and we have a hard time getting -- You know,
16 where a lot of occupations may have to report
17 those injuries they suffer while working a lot
18 of those are really hidden from people who are
19 doing agricultural research and we don't know
20 exactly the numbers that we're dealing with.
21 And because of that it makes it difficult to
22 see what kind of changes our research and our
23 interventions and education is really making
24 out there. And so certainly I think one of the
25 things we need to continue to fund related to

1 research is the surveillance, so that we can
2 see what kind of changes in agriculture we have
3 made through our research and interventions.
4 In addition to that, we have identified a
5 number of things that could make a big change
6 on the farm, and again, this research to
7 practice; additional research in looking at
8 what it would take for farmers to adopt
9 interventions that we know work.
10 So providing money in that area -- And for
11 example, we know retrofitting rollover
12 protective structures work for decreasing
13 tractor-related injuries and deaths. What do
14 we need to do to get farmers to put those on
15 their tractors to decrease those injuries?
16 What kind of incentives have to be made to do
17 that?
18 Obviously, some of that may be additional
19 funds, funding needed to help that take place,
20 but certainly identifying those things that
21 would make farmers make those changes that we
22 know already would work if they were practiced.
23 And in addition to that, I think a very
24 important area that some people here at the
25 University have worked on is really, since

1 again most farms don't fall into these federal
2 regulations, what -- Can we identify farms that
3 are safer and have implemented strategies to
4 decrease work-related injuries in health
5 practice? And can we take a list of standards
6 that actually if farmers would implement on
7 their farm would make them safer and have less
8 health-related problems? If we can prove that
9 and put research to prove that then maybe they
10 can be adopted, we can set up programs to have
11 farms certified as being a safe and healthy
12 farm, and maybe decreasing insurance premiums,
13 and proving to get insurance companies to
14 accept that and have a decreased rate so that
15 people would have incentive to do so. And I
16 think a safe certified farm is kind of a model
17 and has potential to do that. But research --
18 there's other places that have worked on this
19 as well. I think that's a very important area
20 of research to get research to practice.
21 And finally, I'd like to just mention again
22 about the importance, I think, of pediatrics
23 and children on the farm. Often we don't think
24 of children as, you know -- perhaps teenagers
25 over 16 are working on other fields, but in

1 agriculture there's children that are basically
2 a part of that factory and are everywhere in
3 that situation and can be injured. And even
4 though some of them are not actually working, I
5 think we still need to think about efforts to
6 make that a safe place because it is affecting
7 the workers on the farm, the farmers
8 themselves.

9 Efforts in research are looking at daycare
10 options or kind of innovative ways to deal with
11 children on the farm and preventing them from
12 getting injured, helping implement
13 developmentally appropriate tasks for children
14 on the farm. We have a lot of guidelines that
15 have been developed, but how can we get that
16 out to farmers and have them implement those?
17 And additionally, one of the things that I have
18 been seeing so much in my practice is ATV
19 injuries. I think it's no surprise to many
20 people that the escalation of all-terrain
21 vehicle-related deaths and injuries is just
22 escalating exponentially. And it is, I think,
23 important for -- These vehicles are used for
24 agricultural-related things on the farm, also
25 recreation. But they are a very dangerous item

1 that we need to put more research in because it
2 is becoming unfortunately a terrible epidemic
3 of injuries and deaths related to this vehicle.
4 Thank you very much.

5 **DR. SPRINCE:** Thank you, Dr. Jennisen. And now
6 we have the privilege of hearing from Shari
7 Burgus from Farm Safety 4 Just Kids.

8 **MS. BURGUS:** Hello, it's nice to follow
9 Dr. Jennisen. My name is Shari Burgus. I am
10 education director at Farm Safety 4 Just Kids.
11 We're located about 135 miles west of here, and
12 we hope that you've all heard of our
13 organization.
14 We deal with a lot of the issues that
15 Dr. Jennisen was talking about. We try to
16 educate in ways to provide a safe environment
17 for all that live and work there, primarily
18 with kids, but we work with kids and adults.
19 I've been with Farm Safety 4 Just Kids for a
20 little over 14 years, and I've seen a lot of
21 changes in agriculture throughout those years.
22 Children are the future of our agriculture in
23 the United States. Their health and well-being
24 need to be preserved to ensure agriculture's
25 next caregivers, protectors, and influential

1 leaders remain safe and healthy.
2 While children are young it is an adult's
3 responsibility to protect them. That means
4 that we need to do everything in our power to
5 eliminate the hazards through engineering
6 modifications, reinforcing established safety
7 and health regulations, and education of family
8 members about safe ways to stay safe within
9 that rural environment.

10 Education and community outreach are Farm
11 Safety 4 Just Kids' area of expertise in farm
12 injury prevention. After nearly 20 years of
13 nonprofit experience, we are still looking for
14 new ways to reach children and their families
15 with life-saving information and programs.
16 Nearly 140 volunteer chapters conduct farm
17 safety and health information every year on a
18 continual basis. And each year we reach over
19 one million kids, families, and their parents.
20 North American farms are changing. With these
21 cultural changes comes the need to modify
22 programs and resources to meet specific needs.
23 That's where we fit in. Increases in small
24 hobby farmers, large corporate producers, and
25 migrant workers are all examples, and that all

1 affects what we do as nonprofit people. Recent
2 education efforts at Farm Safety 4 Just Kids
3 include a comic book on pesticide exposure for
4 Spanish speaking audiences, and a magnetic
5 display for Amish issues.
6 Funding is needed to make sure that these
7 programs are designed, delivered, and evaluated
8 to reach the unique audiences through
9 appropriate channels. We rely on research
10 institutions like the University of Iowa, the
11 University of Kentucky, and everywhere else to
12 help us develop and evaluate programs,
13 strengthen those programs that are making a
14 difference, and altering the ones that are
15 making a positive impact on knowledge,
16 attitudes, and behaviors.
17 A couple of examples that come to mind that
18 we've been working on recently are types of
19 cooperation where we reach people on
20 all-terrain vehicles, just as Dr. Jennisen was
21 talking about. Another example is where we're
22 reaching people with rural health issues.
23 ATVs have become popular in rural communities.
24 The number of injuries attributed to ATVs,
25 especially among the youth, are staggering. To

1 identify how youth are using ATVs and to create
2 programs to address these behaviors, Farm
3 Safety 4 Just Kids has recently worked with the
4 Great Plains Center for Agricultural Health,
5 where we surveyed 600 FFA attendees at the
6 recent national convention down in Louisville.
7 A rural health education packet was also
8 developed by Farm Safety 4 Just Kids recently,
9 and it's being evaluated by ASH-NET. This
10 allows us to take a critical look at programs
11 that teach youth about preventing
12 health-related problems in the future. Our
13 role within the research-to-practice model
14 includes the practice end of the spectrum, and
15 we try to do that through working with other
16 organizations that are on the research end of
17 the spectrum.

18 In order to provide quality community programs,
19 research is needed to work in tandem with
20 programs like ours that are implementation in
21 nature. We believe at Farm Safety 4 Just Kids
22 that children's health and safety issues need
23 to be a prominent importance when determining
24 the direction for future NORA and NIOSH
25 initiatives.

1 Safety and health practices start at a young
2 age. Children crawl before they walk and walk
3 before they run. In the same sense, they need
4 to learn how to use a lawn mower to mow the
5 grass before they start using larger and more
6 powerful equipment.

7 I urge you on behalf of Farm Safety 4 Just Kids
8 and all youth on the farm to please place high
9 priority on our youngest farmers. Thank you.

10 **DR. SPRINCE:** I'd also like to thank all of our
11 speakers for -- they seem to be their own
12 timekeepers, and everyone's just getting that
13 five-minute mark. Thank you. And also from
14 Farm Safety 4 Just Kids, we have Ashleigh Haus
15 who will speak with us.

16 **MS. HAUS:** Hi, I'm Ashleigh Haus, a youth
17 delegate from Farm Safety 4 Just Kids. I
18 represent Farm Safety 4 Just Kids as a member
19 of their youth network serving the United
20 States and Canada. We attend meetings, promote
21 local farm safety efforts, and serve to
22 increase peer-to-peer education.

23 I am here today to talk to you about keeping
24 childhood farm safety a top priority. Without
25 support from educational programs like Farm

1 Safety 4 Just Kids many youth like me wouldn't
2 know about the dangers of falling grain, how
3 fast the power take-off shaft can turn, or
4 about storing chemicals in a safe place.
5 I grew up in the city and represent a large
6 majority of rural Americans who are making the
7 move to live on small acreages. I wasn't aware
8 of the dangers such as ATVs or four-wheelers,
9 horses, or small equipment. By becoming
10 involved in Farm Safety 4 Just Kids, I have
11 been given the tools to teach other youth, like
12 me, about the dangers.

13 Farm Safety 4 Just Kids believes that youth can
14 make an impact in spreading the word of injury
15 prevention. Each year, Farm Safety 4 Just Kids
16 selects youth representatives to represent them
17 at various functions. This year, I represent
18 Iowa; while we have other representatives from
19 Michigan, Arkansas, and Pennsylvania.

20 Here are some of the events that we have been
21 participating in. Waco Phillips of Nebraska
22 and I both were on RFDTV program called Living
23 the Country Life. Waco talked about ATV
24 safety, and I spoke about horse safety. The
25 segments aired all across the country.

1 Waco was awarded a \$5,000 scholarship and a
2 \$5,000 community grant from the 2005 Do
3 Something Brick Award for his work on an ATV
4 safety demonstration. This award was presented
5 to him by Former President Clinton. Waco was
6 also on the cover of High Plains Journal for
7 his farm safety work.

8 Wayne Lenderman (*) participated with Marilyn
9 Adams and Dave Schwartz in a one-hour call-in
10 show on RFDTV. Thousands of viewers tuned in
11 or called in questions about farm safety.

12 Wayne was poised, professional, and up to speed
13 on many farm safety issues.

14 Nicole Shannendorf (*) of Michigan and Waco
15 Phillips helped give presentations to FFA
16 Members and their advisors at the national FFA
17 convention about ATV safety. Nicole also was
18 well received when she presented at Michigan
19 State University. She stepped in when Marilyn
20 couldn't attend due to prior commitments.

21 Waco and Nicole represented farm youth when
22 they traveled to the National Organization of
23 Youth Safety Meetings in Washington, D.C. All
24 four current Farm Safety 4 Just Kids youth
25 representatives have helped plan, organize, and

1 present at Farm Safety 4 Just Kids regional
2 chapter conferences.

3 Each of these examples shows that youth can and
4 are on the forefront of making a difference in
5 farm safety and health. And these examples do
6 not include the countless hours that youth from
7 everywhere devote when they perform puppet
8 shows for younger kids, review material to make
9 sure that it fits the youth audience, conduct
10 sessions at Farm Safety day camps and other
11 farm safety and health programs.

12 As you begin looking at ways to allocate
13 funding please keep agriculture a viable
14 industry by supporting initiatives that impact
15 children and youth. Together we can keep rural
16 children safe and healthy.

17 **DR. SPRINCE:** Thank you, Ashleigh. And now,
18 I'd like to introduce Dr. Risto Rautiainen, who
19 is a faculty member in the Department of
20 Occupational and Environmental Health and an
21 expert in agricultural health and safety. He
22 works on his own research in this area, as well
23 as with the Great Plains Center and the
24 Heartland Center for occupational health and
25 safety.

1 **DR. RAUTIAINEN:** Thank you, Nancy. As Nancy
2 mentioned, I'm on faculty at the University of
3 Iowa here and I have some presentation points
4 that I have also written. And I think the
5 written version is probably better than the
6 spoken version. I usually write much better
7 than I speak. And these are not -- These
8 comments are not being coordinated with the
9 University of Iowa, so I think you can consider
10 them being just my own.
11 I'd like to approach this issue, again, from
12 the agricultural sector point of view. And I
13 would not in this presentation like to present
14 any specific research areas that are important,
15 but rather just address some of the structure
16 and organization within NIOSH and how the
17 decisions are made and how in my opinion those
18 processes could be made more effective, so that
19 they serve the agricultural sector better.
20 And so here are my five points. First, add
21 agricultural industry representation into
22 critical NIOSH decision making processes,
23 including preparation of grant announcements,
24 scientific review panels, and agency grant
25 decisions.

1 The purpose of the NIOSH agricultural program
2 is to produce information that can help farmers
3 to stay safe and reduce injuries. And I think
4 it is important to have input from the
5 agriculture sector in the decision making. And
6 if we don't have that, it is very hard to get
7 buy-in afterwards, after the fact.

8 And I think it would be a great asset for NIOSH
9 to have agricultural representation from groups
10 that represent the agricultural workers and the
11 industry. And that would really help guide the
12 research so that it really serves the industry
13 as good as it can.

14 Secondly, the agricultural expertise within
15 NIOSH should be strengthened. We used to get a
16 lot of collaboration, actually with NIOSH
17 people we used to get site visits and we used
18 to have people come and discuss on a very
19 practical level how the programs are going and
20 what should be done. And I thought that was a
21 very good idea, but it seems like lately
22 bureaucracy has taken over and that process has
23 not been as effective as it used to be. And I
24 think it would be very good for NIOSH to
25 utilize the expertise of those people who know

1 the agriculture program already, and I think
2 NIOSH should hire more people who actually have
3 real agriculture background and who can discuss
4 with USDA Farm Bureau, agriculture industry
5 commodity groups at the level where they are,
6 and be very effective in exchanging ideas and
7 seeking input and cooperation.

8 Third point, there needs to be more
9 transparency in the NIOSH agriculture program;
10 especially the intramural program seems to be
11 something that we don't really know much about
12 and we have not been able to collaborate -- It
13 may be our fault, as well, but I think there
14 needs to be a better connection between the
15 intramural and extramural programs. And I
16 think at our end we have felt that the
17 extramural program has perhaps decreased in
18 funding levels. And we would like to, I guess,
19 have good transparency so that we know where
20 the funds that are appropriated for agriculture
21 research, where those funds are used. And I
22 think particularly that applies to the NIOSH
23 intramural programs.

24 Fourth point, I think we should do more
25 research that affects larger numbers of people.

1 We tend to do small studies with small samples,
2 effecting only small numbers of farmers. If
3 you go today and do a survey on American
4 farmers and you ask them what they know about
5 NIOSH or research that has been funded by
6 NIOSH, the result may not be as good as we
7 would like it to be. And I think we should
8 find ways how to develop prevention models that
9 are actually affecting greater numbers of
10 farmers. And those kinds of things can be, for
11 instance, occupational health service models
12 with financial incentives, which have been very
13 effective in, for instance, my home country
14 about 40 percent of farmers are members of an
15 occupational health service system.

16 Also, I think the new information technologies
17 and education needs to be utilized more because
18 that's about the only way you can really reach
19 over two million farms on a frequent basis all
20 the time.

21 I guess my next point and last point is that we
22 should support research that helps develop
23 standards or technical innovations or some
24 solid ideas that we know are effective. And I
25 think we should judge new projects, incentives

1 or initiatives from the prevention point of
2 view.

3 There's already a lot of preventive
4 information. If you go on NASD you will find
5 over 4,000 documents that describe in great
6 detail what farmers should do to prevent
7 exposure or to reduce their hazard. And if we
8 propose a project that doesn't create anything
9 new, that we don't already know about
10 prevention, then what good is that research?
11 But we know that new standards, for instance,
12 the ROB standard is about, maybe, one of the
13 most effective tools in the agriculture health
14 and safety sector that has really made a
15 difference in increase of use of roll-over
16 protective structures on tractors. And we may
17 need some new other standards. We may need a
18 standard in organic dust exposure levels. We
19 may need other new standards that could be
20 something that can really be a yardstick and
21 move the field forward.

22 And I guess finally, just whenever we're doing
23 studies, we should really look at the existing
24 prevention information, especially at NASD and
25 judge whether our new projects are really

1 creating something new and some new value that
2 moves the prevention forward. Thank you.

3 **DR. SPRINCE:** Do you want to tell them what
4 NASD is?

5 **DR. RAUTIAINEN:** NASD is National Ag. Safety
6 Database and it is a NIOSH website, piece of
7 NIOSH website. I think it gets more hits than
8 any other part of NIOSH; that's what I'm told.
9 And also, I think it is by far the most
10 utilized agriculture health and safety website
11 on the Internet.

12 **DR. SPRINCE:** Thanks, Risto. Now, are we all
13 set for our Illuminate participants, should we
14 try? Okay. We're hoping to connect now with
15 Mr. Wane Baker from Michael's Engineering,
16 Incorporated, one of our distance participants.
17 And we're going to give this a try now.

18 **MR. BAKER:** Good morning. My name is Wane
19 Baker with Michael's Engineering and I am very
20 pleased to take part in today's session. I
21 don't have prepared comments, and I thank those
22 of you who are onsite for your careful
23 preparation of the PowerPoint materials.
24 My segment -- my participation today is going
25 to represent something of a departure because

1 I'd like to speak to the issue of indoor
2 environments, and specifically the concept of
3 the damp buildings and the impact that it has
4 on -- for the impact that it has on our
5 nation's workforce, that is non-industrial,
6 non-agricultural represents about 70 percent of
7 our nation's workforce of approximately 90
8 million Americans working in indoor
9 environments that again, are non-industrial,
10 non-agricultural.

11 I recognize and appreciate that the indoor work
12 environments represent just one of -- as I
13 understand it -- 21 priority areas for the
14 occupational research agenda. But
15 nevertheless, I feel very strongly as part of
16 my professional practice over the last 25 years
17 that some additional emphasis and effort must
18 be placed on looking toward the impact of damp
19 buildings and the health of our children in
20 schools, office workers, folks perhaps like
21 myself that spend some time behind a desk, as
22 well as many of you in attendance today.

23 The research from Scandinavia, Europe, and
24 Canada clearly shows a significant impact in
25 relationship between damp buildings and

1 hazardous health effects. And many of you may
2 be familiar with the various studies, but
3 frankly the mechanisms behind the adverse
4 health effects associated with exposures to
5 damp buildings remains a mystery and remains
6 unclear.

7 When I registered to take part in today's
8 meeting my topic was identified as adverse
9 health effects of damp buildings and the role
10 of microbial amplification. I'm a certified
11 industrial hygienist, a licensed professional
12 engineer and my associate -- a lot of my
13 associates here are master-level
14 microbiologists. It's what we do every day, we
15 help people figure out why they're feeling
16 poorly in their work-a-day world. And it's
17 more than just a matter of the sniffles or a
18 runny nose. There appears to be a series of
19 rather profound, adverse human health threats
20 associated with time spent in damp indoor
21 environments.

22 And I'd simply like to encourage in these few
23 precious minutes today, NIOSH to consider
24 additional huddling and research associated
25 with trying to figure out what this mechanism

1 is. The Institute of Medicine, in their recent
2 report on damp indoor spaces, made it clear
3 that we simply don't know yet. We recognize
4 that there is an association between damp
5 buildings, but we simply don't know what the
6 mechanism is. And again, this is an issue
7 which affects an enormous number of people in
8 the United States. And that's about all I have
9 for you today. I appreciate the opportunity to
10 address this group. And thank you, I'll
11 certainly stay tuned and listen throughout the
12 day.

13 **DR. SPRINCE:** Well, you came in loud and clear,
14 Mr. Baker. Thank you very much. And now I
15 hope that Dan Holub is here. Yes. I'd like to
16 introduce Dan Holub who is the director of our
17 University of Iowa Labor Center, and he's also
18 a member of our Residency Advisory Committee
19 for the Heartland Center; that's another hat.
20 Dan?

21 **MR. HOLUB:** Thank you. As Nancy indicated I'm
22 the director of the University of Iowa Labor
23 Center. The Labor Center was established in
24 1951 to serve Iowa's organized workforce. We
25 teach non-credit courses to trade union members

1 each year, reaching between 2,000 and 3,000
2 trade unions a year.

3 The classes we teach vary greatly, but relate
4 to practical industrial relations, labor
5 history, communication and leadership
6 economics, safety and health, train the
7 trainer, and other related areas. And of
8 course, worker safety and health education is
9 one of our primary missions at the labor
10 center, and we've been teaching programs in
11 those areas for many years.

12 I would like to first emphasize what I think is
13 critical in NIOSH's research program, and that
14 is the importance of working with labor unions
15 in your research activities. And I say that
16 really for two reasons, or rather two main
17 contributions that labor unions can make and
18 that is knowledge and voice.

19 Knowledge. As workers on the job site, union
20 workers are intimately familiar with the
21 occupational hazards of their fields. And
22 because of this first-hand knowledge they are
23 often key to finding solutions to overcoming
24 those problems. Unions also bring an important
25 institutional knowledge in perspective to

1 health and safety research. Unions are
2 uniquely able to collect and analyze the
3 experiences of workers across industries, and
4 because of this are often able to identify
5 hazards in terms of their severity and
6 frequency that may be less obvious to
7 researchers who may depend on reported data or
8 other indirect sources of information.
9 And of course, knowledge without voice is
10 useless and unions provide workers with a voice
11 that can be heard, unlike their non-union
12 counterparts who routinely face employer
13 retribution for reporting injuries and safety
14 and health hazards. Union workers are in a
15 much better position to defend themselves
16 against such employer retribution and to speak
17 out and honestly when they are confronted with
18 occupational hazards.

19 Unions also organize that voice through local
20 health and safety committees and through their
21 international union health and safety
22 departments. Also through basic workplace
23 democratic processes, unions are able to
24 prioritize their health and safety concerns,
25 thus helping to focus researchers attention to

1 the most important and immediate needs of
2 workers.

3 The union voice is present in health and safety
4 education and training programs conducted by
5 local, state, regional, national and even
6 international union organizations and
7 institutions. Through these educational
8 programs and other organizational activities,
9 unions are in a unique position to disseminate
10 research findings to workers across entire
11 industries. No other group is in a better
12 position to educate workers in health and
13 safety issues than our labor unions.

14 And I wanted to add a few other comments that
15 relate to issues that are reoccurring themes
16 that come up in the classes that I teach from
17 workers in Iowa. These are more specific.
18 Number one is line speed, which continues to be
19 a problem for workers in this state and I
20 believe across the country. Increasingly,
21 there's pressure to do more with less and this
22 is having an effect on worker injury rates.
23 Second, I wanted to mention a related topic and
24 that is staffing levels and work organization.
25 Again, doing more with less is a reoccurring

1 theme that I hear across all the groups that I
2 deal with in the labor movement and should be
3 researched in detail.

4 Ergonomics continues to be an issue for
5 workers. I think it's particularly challenging
6 for unions today because of the rollback of the
7 ergonomic standards. Ten years ago it was
8 common for unions to negotiate comprehensive
9 ergonomics programs. I can't think of one
10 that's been negotiated in this state since the
11 rollback of the ergonomics standard; that's
12 just very difficult to achieve success at the
13 bargaining table.

14 Fourth, employer policies that discourage the
15 reporting of injuries and in particular
16 behavior-based safety programs. I believe that
17 there is a prevalence of those policies that
18 result in a serious and wide-spread under
19 reporting of occupational related injuries and
20 illnesses. While I believe the problem exists
21 in almost all occupational groups, I think it
22 is particularly true for recent immigrant
23 workers, low-paid workers, and also workers in
24 the construction industry.

25 Research focusing on the relationship between

1 such programs and policies to injury rates and
2 occupational hazards, I think, would be
3 particularly beneficial and relevant today.
4 Fifth, I think the role of enforcement or
5 rather lack of enforcement in eliminating
6 worker exposure to occupational hazards is a
7 problem. Iowa, for example, has 21 OSHA
8 inspectors responsible for covering 90,000
9 workplaces. And it's essentially impossible
10 for them to cover that many workplaces in Iowa.
11 And what I'm hearing from unionized workers and
12 non-union workers is that OSHA is simply unable
13 to provide the enforcement that is needed to
14 have a serious impact on health and safety in
15 the workplace, and this problem needs to be
16 studied.

17 Certification and recertification systems for
18 skilled workers, particularly in the building
19 and construction trades is important, as well
20 as gas, electric, and communication utilities.
21 Many states do not require certification or
22 recertification for junior-level workers. And
23 the question is whether this has an effect on
24 the health and safety of those workers, as I
25 believe it does.

1 And lastly, let me just say I think there's
2 general support in the labor movement, at least
3 this is my impression, for the industry or
4 sector-specific research programs that NIOSH is
5 moving towards. I believe that that is the
6 most useful form of research for the labor
7 movement. And I will conclude my comments
8 there unless there are questions. Thank you.

9 **DR. SPRINCE:** Thank you, Dan. Now, I'd like to
10 introduce Dr. David Wilder, who is a faculty
11 member in our College of Engineering in the
12 Department of Biomedical Engineering. And as I
13 mentioned before, one of the mentors of our
14 students in ergonomics research training in the
15 Heartland Center.

16 **DR. WILDER:** Thank you, Nancy. I'd like to
17 take this opportunity to make a comment on my
18 colleagues' and my understanding of the NIOSH
19 acquisition process. Director Howard and
20 Dr. Soderholm, it is an honor being able to
21 participate in this forum. I am the director
22 of the Jolt Vibration Seating Lab in the
23 ergonomics section of the Iowa Spine Research
24 Center. In addition, I am a licensed
25 professional engineer and a certified

1 professional ergonomist. I'm a faculty member
2 at the University of Iowa and have been working
3 in occupational safety and health for 33 years.
4 I participate in standards development related
5 to human exposure to vibration. I have
6 received funding from NIOSH and other agencies
7 and I've been involved in creating significant
8 practical solutions. I will participate in the
9 first American conference on Human Vibration,
10 to be held in Morgantown this June, where I
11 understand Director Howard will be the keynote
12 speaker.

13 For many years I have worked with talented and
14 thoughtful people who understand effective
15 approaches and research directions needed to
16 address work-related musculoskeletal disorders.
17 These same people have also been frustrated by
18 and have cautioned me to be careful about a
19 particular aspect of the NIOSH acquisition
20 process. That is, if anyone advises NIOSH to
21 support a particular area he or she is barred
22 from applying for funds in that area.

23 I suspect one reason for this has to do, at a
24 minimum, with the appearance of a conflict of
25 interest. Occupational health issues are

1 preventable. Is there anything that can be
2 done that would allow those with practical
3 insight into occupational health and safety to
4 advise NIOSH?

5 It is a common perception that one is barred
6 from participating in the process after giving
7 such advice. This is a generic problem that
8 compromises the efficiency of NIOSH.

9 Knowledgeable people are not participating
10 because they are unable to participate. The
11 Department of Defense seems to have exemptions
12 with similar issues, how do they do it?

13 It would be extremely beneficial to the
14 occupational safety and health of the people of
15 the United States to grant an exemption in this
16 area in the name of prevention. With ever
17 increasing healthcare costs, a stitch in time
18 would indeed save nine. Thank you for
19 considering this question.

20 **DR. SPRINCE:** Thank you, Dave. And now I would
21 like to introduce Dr. Kelley Donham.

22 Dr. Donham wears many hats and he is the
23 Director of Iowa Center for Agricultural Safety
24 and Health, as well as a very active faculty
25 member directing our agricultural training core

1 in the Heartland Center, and very active in
2 continuing education in outreach and education
3 in the Great Plains Center.

4 **DR. DONHAM:** Thank you, Nancy. It's a pleasure
5 to be here. Dr. Soderholm, thank you very much
6 for making this happen here. I have about
7 three major things I want to say, and the first
8 is in a process like this let's make sure that
9 we build on the past. There's been a lot of
10 people that have put a lot of effort into
11 designing what the problems are. And it's one
12 of the things that started way back in the
13 early or late 1980's was this conference called
14 Agriculture at Risk, which led to the first
15 Surgeon General's conference in 50 years, which
16 was Agriculture and Safety Conference, which
17 was held in 1991. There's a lot of good
18 information there.

19 And then follow up to that, there was a
20 conference that was put on by the Agricultural
21 Health and Safety Network in 1999 called Using
22 the Past and Present to Map the Future Actions.
23 And it included a lot of information that had
24 gone on in the past and tried to funnel that
25 into the future. So my message is to use that

1 information and build on that past and into the
2 future.

3 One of my assignments for that particular
4 conference, which was Using the Past and
5 Present to Map the Future Actions, was to
6 review the success and the failures of the 86
7 recommendations that was in this particular
8 report. Those 86 recommendations are broken
9 down into about four or five different areas
10 that included policy recommendations,
11 education, occupational health and service
12 delivery, and research.

13 And one of the -- In our analysis of that, of
14 those 86 recommendations, the research actually
15 came out probably one of the best areas in
16 terms of percentages of or percentage of
17 increase or progress in that area. We
18 estimated it somewhere in the neighborhood of
19 about 54 to 57 percent of the goals in that
20 area were achieved.

21 However, one of the big deficiencies -- and
22 this is my major message today -- is in the
23 area of occupational health and services
24 delivery. It relates to some of the comments
25 that Dr. Rautiainen had mentioned in his item

1 number four up there on the board. So we do
2 have failures in the occupational health and
3 safety services delivery.

4 There are some innovative programs scattered
5 across the country that have been facilitated
6 by NIOSH, particularly the certified safe farm
7 that Dr. Rautiainen had mentioned. There is a
8 new organization that is developing within the
9 region -- or at least within Iowa so far and
10 hopefully to the region, it's called the
11 AgriSafe Network. But broadly speaking, there
12 is relatively little delivery of occupational
13 health services to the agricultural community,
14 and that's what I wanted to focus on.

15 And I wanted to then mention some of the
16 specific recommendations that came out of this
17 report that are still rather in need of
18 development. Development of a phased system to
19 provide comprehensive occupational health and
20 safety services to the agricultural communities
21 involving federal, state, local, and private
22 partners. And that's a large category that
23 needs to have -- And I think there's really
24 research applications here. There's a whole --
25 as you know -- in terms of health services

1 delivery, it's a large research area in many
2 places in the country. And I think this can be
3 applied specifically to agricultural
4 occupational health and safety services.
5 Funding of projects with concerted efforts
6 towards development of occupational health and
7 safety services is something that was a
8 recommendation that still needs to be
9 considered. Incorporation of costs sharing
10 arrangements with farmers, farm groups,
11 insurance companies, and local hospitals in
12 communities assuming some of the
13 responsibilities. An establishment of linkages
14 with services such as community access
15 hospitals, a whole new notion of new hospitals
16 that have specific funding where they can
17 charge what it costs. And there, I think, is a
18 growing opportunity there to help to ensure
19 that there are some occupational health
20 services put within that context.
21 So that's my main message, is to consider that
22 because it is a bottleneck. There's a lot of
23 good research that's being done, but unless we
24 can get it into the health services delivery
25 community the access to that research and the

1 translation of that research doesn't happen
2 very effectively.

3 Many of us who are involved in this area do so
4 because of personal experiences. And having
5 grown up and raised on a farm, having been on
6 the wrong end of a serious injury to my father
7 who received a permanent disability from that
8 injury and had very poor, or no actually
9 occupational health and safety services to help
10 him through that period and to remove the
11 hazards. That really has stuck with me because
12 I generally don't see much of an improvement
13 since that time, 40-some years ago.

14 So it is an area, a bottleneck, and certainly
15 an area that I would promote to really help get
16 the research out to translation, where it's
17 really needed. Thank you.

18 **DR. SPRINCE:** Thank you very much, Kelley. And
19 now I'd like to introduce Dr. Michael Rosmann
20 and he will be speaking to us. He is director
21 of the AgriWellness, Incorporated, and will
22 continue on with the theme of the agricultural
23 sector.

24 **DR. ROSMANN:** I'd like to thank NIOSH and the
25 Great Plains Center for making this town hall

1 meeting possible. I drove 220 miles today to
2 get here, and I hope that tells you how
3 important I think that this process is. I have
4 really three main points to make.

5 The first is to build on what Dr. Donham and
6 Dr. Rautiainen introduced, and that is research
7 that gets the word out to large groups of
8 people. My work with AgriWellness, which is a
9 nonprofit corporation, is in seven states,
10 Iowa, Wisconsin, Minnesota, North and South
11 Dakota, Nebraska, and Kansas. Our work is to
12 build behavior health supports for the
13 agricultural population.

14 In each of our states we have a farm helpline,
15 which is used annually by more than 35,000 farm
16 people in terms of number of callers. We have
17 trained staff who operate these hotlines 24/7,
18 every day of the year. We also have trained
19 agricultural professionals who deliver behavior
20 health services; mental health, and substance
21 abuse counseling, primarily.

22 Our work involves training the staff who
23 operate or provide these services in what we
24 call agricultural behavioral health. We can
25 reach lots of people, but the funding in

1 anything that has to do with rural has taken a
2 substantial hit during the past year-and-a-half
3 or so and in some ways longer than that. So we
4 need help from NIOSH showing that this kind of
5 a support network can do some good.

6 The suicide rate for the agricultural
7 population is twice that of the
8 non-agricultural population and even higher for
9 males. Depression is rampant as a
10 stress-related illness in the agricultural
11 population. And not only does stress impact
12 the injury rate, but it also impacts the
13 psychological vulnerability rate. So that's my
14 first point.

15 Second comment, and it's kind of related to
16 this point that Kelley and Risto made and it is
17 that put greater portion of NIOSH funds into
18 grassroots research, if it all possible.

19 Because it's at the grassroots level where
20 agricultural injuries and their prevention
21 start, both for physical and psychological
22 injuries.

23 A third point I'd like to make is to invite
24 NIOSH to consider joining the National Rural
25 Behavior Health Workgroup. This workgroup has

1 formed within the past year to bring together
2 all of the federal agencies that have something
3 to do with rural mental health and substance
4 abuse issues in rural areas. With agriculture
5 necessarily being almost entirely rural, we
6 think it important that NIOSH be at this table.
7 The organizations that are at it already are
8 the Substance Abuse and Mental Health Services
9 Administration, the National Institute of
10 Mental Health, the Bureau of Primary
11 Healthcare, Indian Health Service, USDA, Center
12 for Mental Health Services. We think that
13 NIOSH needs to be at this table to help set the
14 agenda. The last meeting was held on January
15 23 and 24, not only were all those federal
16 agencies there, but so were chief
17 representatives of the National Rural Health
18 Association, the National Association for Rural
19 Mental Health, WICHE, the Western Interstate
20 Commission on Higher Education, and
21 AgriWellness, and several other groups. So we
22 think it's important if NIOSH can find a way to
23 dialogue with that, and I'm going to provide
24 you with some information about that particular
25 workgroup, as well as an e-mail that I

1 addressed to Dr. Max Lum, but I think you'll
2 read it.

3 So that takes care of my comments unless
4 there's a question or two that I might be able
5 to respond to.

6 **DR. SPRINCE:** Could you tell us the name of the
7 workgroup again?

8 **DR. ROSMANN:** The workgroup is called the
9 National Rural Behavioral Health Workgroup, and
10 it's an agenda setting workgroup that has been
11 formed primarily because rural needs a voice
12 that is unified at the federal level. Thank
13 you very much.

14 **DR. SPRINCE:** Thanks very much. Now, I believe
15 this is the end of our morning scheduled
16 speakers, and I'm wondering if any of the
17 afternoon speakers are available and would like
18 to get in their comments now. Terry Meek,
19 Dr. James, Dr. Tyler, anybody available at this
20 point?

21 **MR. COOK:** I think Todd Wyatt is ready to talk
22 this morning.

23 **DR. SPRINCE:** Okay.

24 **MR. COOK:** He wasn't on the list, but he did
25 register.

1 **DR. SPRINCE:** Okay. Very good. I just want to
2 get your name right, it's --

3 **MR. WYATT:** Todd Wyatt.

4 **DR. SPRINCE:** Todd Wyatt will speak next and
5 here you go for the microphone.

6 **MR. WYATT:** Good morning, I'm Todd Wyatt. I'm
7 an associate professor at the University of
8 Nebraska Medical Center. I would like to
9 address lung disease as my topic.
10 Lung disease is the number three cause of death
11 behind cancer and heart disease. But unlike
12 cancer, deaths due to lung disease are
13 increasing each year.
14 The interest that we have is that NIOSH
15 continue its funding related to basic
16 laboratory research in airways diseases.
17 Particularly, I'd like to make the pitch that
18 increased funding be appropriated for
19 combination injury studies centered around
20 tobacco and alcohol exposure. And as you can
21 see these are very important causes of death in
22 our society today.
23 The major disease problem that we're facing is
24 chronic obstructive pulmonary disease. It's
25 the fourth leading cause of death right now. A

1 lot of Americans are affected by it. You may
2 not be aware of the fact that alcohol -- there
3 is a component of alcohol consumption that
4 contributes to the development of COPD.
5 The majority of people with COPD are cigarette
6 smokers or previous cigarette smokers, but a
7 significant amount of COPD is caused by
8 occupational exposures. And this is where
9 NIOSH comes in in its commitment to researching
10 that. COPD is very complex and poorly
11 understood and therefore our treatment
12 modalities are very inadequate. Yet, in the
13 study of COPD it consists of an intersection
14 between chronic bronchitis, emphysema, and
15 asthma.

16 The hallmarks of this injury after the
17 inhalation of substances, toxins, organic
18 dusts, consist of the elevated tissue
19 inflammation in the lungs, a decrease in our
20 innate ability to clear the things that we've
21 inhaled, as well as a decrease in the repair
22 processes that remodel and restore the lungs to
23 its normal functioning. Basic research in
24 these areas need to be continued and need to be
25 expanded.

1 That innate protection that I'm talking about,
2 what I'll focus on, at the level of the cilia
3 lining the airways participates in a mechanical
4 mucociliary transport system that keeps us
5 healthy from things that we inhale. A lot of
6 people refer to this as the mucociliary
7 escalator of the ciliated cells that function
8 in coordinated action in the airways to clear
9 inhaled particles out of the airways and into
10 the GI tract where those particles can be
11 processed and destroyed.

12 The upper airways as well as the lower airways
13 -- this orchestrated ciliary beating is
14 essential to move substances into the esophagus
15 where we swallow them and then they can be
16 processed. And this innate ciliary beating and
17 mucociliary transport apparatus is essential as
18 our first line of defense about anything we
19 might inhale in the workplace.

20 So we're hypothesizing in addition to the
21 exposure of dust that can impact proper
22 clearance in the maintenance of lung health
23 that co-exposures of cigarette smoke and
24 alcohol that haven't been previously studied in
25 combination with these concepts be addressed as

1 workers in every occupation are consuming
2 alcohol and smoking cigarettes.

3 You may have been aware that the vast majority
4 of alcohol abusers are cigarette smokers and
5 studies have reinforced that. But, what you
6 might not be aware of is that anywhere between
7 a third and a half of all cigarette smokers
8 have problems with alcohol consumption, as
9 well. So the two exposures go hand in hand and
10 basic research needs to be addressing that, and
11 I think NIOSH is a good vehicle for that.

12 In addition, preclinical animal models need to
13 be continued to be supported and developed for
14 co-exposure studies. Lots of studies have been
15 supported for cigarette smoke exposure in small
16 animals, such as the one pictured here
17 (indicating), as well as lung function and
18 exposure studies that can deliver alcohol and
19 other organic and dusts and particles to the
20 airways. But, the combination of these
21 exposures has not been addressed and not been
22 reported in the literature.

23 So to summarize, COPD is a growing and very
24 significant disease that has been addressed by
25 basic science and laboratory research through

1 NIOSH funding and I believe should continue to
2 be a priority. Our basic innate protection
3 against inhaled particles, I believe, is a very
4 important thing that we should be investing
5 research dollars in because this is addressing
6 how we can maintain -- If we can understand
7 proper innate protection of mechanical
8 production then this will lead to understanding
9 how we can prevent disease as opposed to just
10 treating symptoms of a chronic disease once
11 it's developed.

12 I feel that animal models are extremely
13 important in developing this, and public policy
14 is always impacted by individuals who like to
15 limit the use of animals in research. And I
16 would like to see that not be public policy,
17 but rather the importance of animal models for
18 preclinical disease studies be an important
19 feature of funding and continued funding.

20 And then my own particular emphasis would be I
21 would stress that we look at the context of
22 multiple sources of injury, like cigarette
23 smoke and alcohol, and how they combine to
24 affect the lung health in the workplace. So
25 thank you.

1 **DR. SPRINCE:** Thank you, Dr. Wyatt, and thank
2 you and Dr. VonEssen, who have traveled from
3 the University of Nebraska to speak today. We
4 really appreciate that and people within the
5 state of Iowa who traveled hundreds of miles to
6 be here, as well. We do have some time now and
7 wonder if anybody is now moved to speak, anyone
8 in the audience or in our distance learners'
9 audience, distant participants who didn't
10 necessarily plan on this, but now would like to
11 share a few remarks? Yes, okay. Murray Matson
12 (*), who is one of the staff members at the
13 Occupational and Environmental Health
14 Department and active in the Iowa FACE Program,
15 as well as the Great Plains Center, and had
16 many years of experience in agricultural safety
17 engineering in the private sector.

18 **MR. MATSON:** Thank you very much, Dr. Sprince.
19 I appreciate this impromptu moment to share a
20 couple of thoughts with you, particularly after
21 spending a couple of sobering days that I'd
22 like to tell you about.

23 First of all, I'd like to add to Dr. Donham's
24 comment about the importance of the Surgeon
25 General's conference and the Ash Network, led

1 by Dr. Chip Petri (*) out of Illinois. But add
2 to that work of the extension service in
3 producing the document called NCR-197 as an
4 informative guide to the safety and health
5 research in agriculture.

6 As Dr. Sprince mentioned, I have a role in the
7 Iowa FACE Program and the Great Plains Center
8 for Agricultural Health. I'm also a board
9 member of Farm Safety 4 Just Kids and
10 president-elect of the National Institute for
11 Farm Safety, the professional organization for
12 people in our field.

13 Part of yesterday I had the rather sobering
14 task of plotting on the four-state map the
15 roughly 120 farm and agricultural deaths in
16 2005. Depending on how you count and who you
17 count that's one-sixth the national total. For
18 Region 7 there were 30 tractor-overturn deaths
19 in '03, 23 in '04, and 19 in '05; is that
20 progress or just different numbers?

21 The ATV, if not already so, is becoming the
22 agent most frequently involved in deaths and
23 injuries in our nation surpassing tractors.
24 Nationally 600 to 700 deaths in
25 agriculture/forestry/fishing, which how

1 includes logging, it didn't two years ago and
2 before. The number 600 to 700, if you use the
3 National Safety Council method of
4 death-to-injury ratio calculations, which in
5 the past has indicated 120,000 to 150,000
6 disabling injuries; that is where you can't
7 return to work the next day. But if you use
8 that same ratio process one might conclude
9 15,000 to 25,000 disabling injuries in our
10 four-state region.

11 Eighty-five percent, historically, of the
12 National Safety Council, the BLS numbers for
13 census of fatal occupational injury deaths, 85
14 percent have historically been associated with
15 the production agricultural; crops, life stock,
16 and agricultural services portion of
17 agriculture. Our farm and agricultural injury
18 monitoring system, which is essentially a
19 press-clipping service captures 120 deaths, 110
20 nonfatal injuries of a serious nature each
21 year. And some of these same deaths, of
22 course, make it into the FACE catch basin,
23 since I capture both of them. And much later,
24 many but not all end up as part of the CFOY
25 count (*), especially those which -- Well, it

1 excludes the course, those which do not meet
2 their selection criteria.

3 Fatalities alone, and if you add them together
4 with nonfatal injuries, present the same
5 picture; tractors, self-propelled equipment,
6 other machines top the list of agents.

7 However, the life stock maulings, grain
8 suffocation's, manure pit tragedies can't be
9 ignored. Within the machinery category,
10 overturns, run-overs, crushes, and crashes with
11 motor vehicles predominate.

12 I would hesitate not but a moment to say there
13 are too many that occurred to those who are too
14 young, too many that occurred to those who are
15 too old, and most of them that occurred to
16 people in between.

17 My three points today are I think pretty
18 simple. One is surveillance, two is
19 incentives, and three is networking. First,
20 current surveillance does not provide a
21 meaningful picture for the American public for
22 priority setting, for targeting our efforts
23 appropriately, for measuring progress.

24 Second, incentives are incomparably powerful
25 motivators. To the extent we can effectively

1 incentivize that which will improve safety and
2 health we need to do so. Incentivizing the
3 system, measuring the results, continuously
4 feeding back to improve and doing it over lead
5 to my third and final comment. And that is
6 that I encourage NIOSH and appreciate their
7 support for the infrastructure because without
8 it we won't find the incentives and we won't
9 measure the progress that's needed to improve
10 the safety and health of the people engaged in
11 agricultural activity. Thank you.

12 **MR. COOK:** Right there we've got a couple of
13 people that want to talk.

14 **DR. SPRINCE:** Very good. We have some distance
15 participants who would like to share some
16 remarks now.

17 **MR. COOK:** Richard, we're going to go ahead and
18 give you the microphone, and you are on the
19 air.

20 **MR. JOB:** Good afternoon, this is Richard Job.
21 I am currently the chair of the ASABE, which is
22 the American Society of Agricultural and
23 Biological Engineers. My comments this morning
24 are we know that a properly designed cab using
25 the application of toxic materials in

1 agricultural can provide protection superior to
2 a respirator. We need research on the need to
3 define when the level of protection of these
4 cabs falls to levels below the limits. If you
5 look the basic operations involving the process
6 of agricultural, tilling the soil, preparing
7 the seed beds, application of fertilizers,
8 pesticides, and herbicides -- (inaudible). The
9 questions that we have are how well are the
10 operators of the equipment protected in the cab
11 with equipment that we have today.
12 In industry, we think we've done an excellent
13 job, but there is no research to verify that.
14 There is also no research to verify how long
15 these cabs are effective. Earlier this week, I
16 was at the ASABE Technology Conference in
17 Louisville. And the question was asked how
18 well do our cabs protect the operator?
19 (inaudible). Another question that was asked
20 was how well do our cabs protect the operators
21 of lawn care equipment when they are doing lawn
22 care or lawn maintenance work? (Inaudible).
23 The one thing that we have no way of
24 identifying today is the protection provided by
25 the cab (inaudible). So essentially in our

1 cabs and the standards today (inaudible). We
2 would like to see sensor technology that will
3 identify when the level of protection provided
4 in an environmental cab has been compromised
5 and maintenance must be performed. We need a
6 simpler, reliable, refutable, and
7 cost-effective test so that when maintenance
8 has been performed we can verify that the
9 protection level offered by the cab
10 (inaudible).

11 When you have answered these questions in
12 applied technology, we could have confidence
13 that we can provide the operator to
14 (inaudible). Thank you.

15 **DR. SPRINCE:** Thank you, Mr. Job. Glad we
16 finally connected there. And I understand that
17 Terry Meek from Proteus -- not to put you on
18 the spot, Terry, is online. And I wonder if
19 Terry would want to give his comments at this
20 point rather than after lunch?

21 **MS. MEEK:** That would be fine with me. Can you
22 hear me?

23 **DR. SPRINCE:** Yes, is that Terry?

24 **MS. MEEK:** Can you hear me?

25 **DR. SPRINCE:** We hear you very well, Terry.

1 Thank you. Go right ahead.

2 **MS. MEEK:** My name is Terry Meek. I am the
3 executive director of Proteus, Inc. We are a
4 nonprofit organization that works with migrant
5 seasonal farm workers, as well as other
6 immigrants that come to Iowa to work in
7 agribusiness and other professions.
8 We conduct every year sessions for migrant
9 seasonal farm workers on workplace safety and
10 pesticide training. And the thing I think
11 that's become quite evident to us is that many
12 employers do not give adequate time to
13 providing education on these very important
14 subjects in a manner that will really help
15 their workers.
16 Many of the employers use videos, which allow
17 -- Which do not allow for any conversation or
18 question answering for individuals that do not
19 speak English well. And this sometimes clouds
20 the issue with overall safety procedures, as
21 well as working with pesticides in the field.
22 And we have found many workers who have many
23 questions to ask and without there being some
24 type of bilingual interchange between the
25 trainers and the workers it becomes very

1 difficult for them to pick up the kinds of
2 information that they need to protect
3 themselves while they're working.

4 If there could be a way that would deduce more
5 employers to do a better job in this area, I
6 think that we could eliminate many accidents or
7 things that happen in the field or in the
8 workplace that we have problems with now that
9 OSHA and ETA have to deal with.

10 Those are my main comments, and I'm very
11 thankful that you were able to include me right
12 now.

13 **DR. SPRINCE:** Thank you very much, Terry. We
14 appreciate that and you had a lively audience
15 here and I'm sure in the distance group, too.
16 And we do have a few more minutes before we
17 break for lunch and wonder if anyone else would
18 like to take advantage of this time slot and is
19 willing to share some comments or their views
20 on where the research should be going? Yes,
21 Kim Gordon. Kim has coordinated with the NIOSH
22 folks for this town hall meeting. Kim is a
23 certified occupational health nursing
24 specialist, and she is the director of our
25 Continuing Education and Outreach Core of the

1 Heartland Center, as well as the continuing
2 education and outreach at WORKSAFE Iowa. Love
3 your hat.

4 **MS. GORDON:** Thank you, Dr. Sprince. As she
5 said my name is Kimberly Gordon. While I'm
6 literally wearing my hard hat representing our
7 Heartland Center, I'm speaking today with my
8 NSN graduate student hat on and as an
9 occupational health nurse.

10 America's workers are aging, many with
11 co-morbid conditions and preventable chronic
12 illnesses. As occupational health nurses, we
13 deal with worker's lifestyles and that link to
14 their ability to be at work every day in our
15 work on a daily basis.

16 Work sites are large, they're small, they're
17 diverse with many special populations of
18 workers. Many Americans work eight to twelve
19 or more hours a day, some six to seven days a
20 week in jobs that cover all the sectors that
21 were discussed here this morning.

22 With all of the other family, personal, and
23 commitments that workers have, a healthy
24 lifestyle is often forgotten. Let alone,
25 finding the time to exercise for 30 minutes a

1 day, as the Healthy People 2010 Program
2 recommends. Employers in the Midwest and
3 Federal Region 7 vary in the type and the
4 amount of health promotion activities and
5 programs offered to workers. Large employers
6 may have resources to provide such services,
7 but it is the small employers that make up the
8 majority of work sites in this region. If
9 there are budget cuts, it is often these extra
10 services that are eliminated.

11 The question from occupational health nurses is
12 what is the effect of lifestyle, physical
13 conditioning, and overall health of workers on
14 their productivity, the injury rates that we
15 see, the severity of work-related injuries, and
16 their ability to return to work following an
17 injury?

18 Research to show health promotion and
19 health-related program effectiveness, reduction
20 of work-related injury and illnesses because of
21 such programs can only benefit employers,
22 workers, and us as a nation with a more
23 productive work force. I suggest the overall
24 health and physical conditioning of workers in
25 all sectors be considered as a priority in NORA

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Research findings could help motivate employers to take a broader health expectation for what we want in workers, and could help workers accept the challenge of living a more healthy lifestyle. Thus, NORA 2 could help all of us have more productive and effective workers.
Thank you.

DR. SPRINCE: Thanks very much, Kim. And we still have a few moments and wonder if anyone else would like to add their comments or observations, anyone here or in our group?

MR. COOK: There's at least two left for the afternoon, right?

DR. SPRINCE: As I understand it, we have yet to hear from Dr. Paul James and Dr. Rich Tyler. As I understand it, and Kim correct me if I'm wrong, they were not able to participate until the afternoon; is that correct?

MS. GORDON: Yes. And Nancy, Paul James will not be participating at all do to something that's come up at the hospital. I have not heard from Dr. Tyler.

DR. SPRINCE: Dr. Tyler would be the only person left on the afternoon agenda, and we

1 will reconvene at that time for his convenience
2 unless we hear otherwise. And I wonder if we
3 should wrap up for lunch now or what is our
4 best bet? We've really had the pleasure of
5 hearing from so many people on a variety of
6 issues. You can see, of course, we're in Iowa
7 and this is a regional meeting on all the
8 sectors and issues, but there was, of course, a
9 lot of concentration on agricultural safety and
10 health, as well as youth working on the farms,
11 and behavioral issues of rural health, as well
12 as issues of injury surveillance for
13 agricultural and other workers to prevent
14 deaths on the job.

15 And we heard from people ranging from people
16 interested in basic research on defense
17 mechanisms in the lung to the larger macro
18 systems of how you can most efficiently carry
19 out research that can then be translated into
20 practical prevention and intervention that can
21 help workers in the agricultural sector and all
22 of the eight sectors of interest, that includes
23 all working people in this country.

24 So I'd like to --

25 **MR. COOK:** There is also a parallel dialogue

1 going on in the messaging window in this
2 program. So we had, for example, Dr. Brukhout
3 (*) from Mayo Clinic, who submitted his
4 comments electronically as we were going along.

5 **DR. SPRINCE:** Oh, that's very good. Yes, he
6 had been called away to clinic and wasn't able
7 to speak during his time.

8 **MR. COOK:** There's a whole list of written
9 dialogue that went on while we were talking.

10 **DR. SPRINCE:** And I'm sure you can find that
11 all as soon as it's posted on the NIOSH
12 website, as well. I wonder if this Illuminate
13 session would be archived too, if available.

14 **MR. COOK:** It'll be ready a minute after we end
15 this afternoon.

16 **DR. SPRINCE:** So that if you contact Kimberly
17 Gordon or Professor Tom Cook, you can get a
18 connection to that on the global campus; two
19 people's remarks from distant sites. We also
20 had some friendly suggestions on how NIOSH can
21 improve getting input from partners. And as
22 you can see from people who spoke, we had
23 almost all -- I would say all of the research
24 going on here at the University. And we heard
25 from the University of Nebraska, as well. They

1 had an important component of NIOSH funding,
2 NIOSH partnership. NIOSH is the leader in
3 occupational health and safety research. So
4 we're all here on a friendly basis to give our
5 thanks to NIOSH for funding research in what we
6 think are these important national research
7 areas, and to give suggestions on us as
8 stakeholders and partners in this on who else
9 can partner with them.

10 And we were very happy to hear that Farm Safety
11 4 Just Kids and the National Rural Behavioral
12 Workgroup, and others, and Proteus, are very
13 interested in partnering with them, as well as
14 people from the private sector interested in
15 safety and the effectiveness of environmental
16 cab protective structures, as well as the
17 indoor environment and research in that area,
18 as well. So just as a quick summary of this
19 morning's topics.

20 I'd like to thank everybody for participating.
21 We're not really finished because we still have
22 Dr. Tyler, and we will reconvene at 1:15.

23 Kim Gordon has a comment.

24 **MS. GORDON:** Also, we'll have Natalie Roy
25 joining us after lunch.

1 **DR. SPRINCE:** And we'll have Natalie Roy, who
2 will speak about some agricultural issues. She
3 is an important specialist in agricultural
4 health and safety who was a former staff member
5 at the University of Iowa and now will bring us
6 up to date on her current work and comments on
7 research agenda. So I hope everybody has a
8 very good lunch, and that we will reconvene at
9 1:15.

10 (Whereupon, a recess was taken from 12:10 p.m. to
11 1:15 p.m.)

REGIONAL AND LOCAL SESSION STAKEHOLDER PRESENTATIONS

MODERATOR: WAYNE SANDERSON, UNIVERSITY OF IOWA

12 **DR. SANDERSON:** Good afternoon. I think we're
13 ready to reconvene the afternoon session of our
14 NORA town hall meeting. And we have at least
15 two individuals from distance that want to
16 connect in with us and we should have one
17 in-house speaker still scheduled. And then I
18 think we'll have a few closing comments and
19 summary.

20 Our first speaker is Natalie Roy, who is the
21 research director for AgriSafe Health Network,
22 and she has been actually a former employee at
23 the University of Iowa and a long-time
24 colleague of many people here at the

1 University. Natalie?

2 **MS. ROY:** Thank you. I feel fortunate to be
3 able to participate in this session, especially
4 because I'm far away. And for those of you
5 that are not aware, the AgriSafe Network is a
6 nonprofit membership organization that consists
7 of health professionals who have been trained
8 in the field of agriculture health and safety,
9 and they receive that training there at the
10 University of Iowa through I-CASH. So we have
11 a strong link to the University of Iowa and a
12 strong history. And it's actually a wonderful
13 example of a program that went from our
14 research phase to something that translated in
15 the community.
16 We have 20 clinics now in the State of Iowa
17 that are based in hospitals, health
18 departments, rural health clinics. And again,
19 they're run by health professionals who have
20 received core training there at the University
21 of Iowa in the field of Ag. Health and have
22 gone back to their organizations and started
23 applying services.
24 The network is a membership organization
25 representing those health professionals. We

1 provide resources for them in training and
2 technical assistance to make sure they can do
3 the job.

4 We're also very excited because we launched a
5 new initiative to expand that particular model
6 in other states because we are a national
7 organization and you can't be national unless
8 you have presence in other states. And so we
9 are going to -- by the end of 2006 we're
10 expected to have new AgriSafe clinics developed
11 in at least ten other states. We've joined an
12 initiative with the National Rural Health
13 Association to make that happen.

14 And we've very, very excited by the response to
15 our recent (inaudible) promotion program where
16 have people throughout the country who are
17 excited to go to core training there at
18 University of Iowa and excited to think about
19 developing AgriSafe clinics.

20 I just give you that background because it's
21 important to understand that we have health
22 professionals out there that even felt
23 (inaudible) of rural communities that we're
24 serving farmers and yet they don't feel they
25 have the resources and the information and the

1 training, and technical assistance to serve
2 those health needs. And so it's really
3 important when we think about research agendas
4 and their translation that we make a connection
5 between what the universities can offer the
6 trained health professionals and what
7 organizations such as AgriSafe Network can
8 deliver in disseminating that important
9 information.

10 So I would encourage you to think about how to
11 design research initiatives that have a strong
12 dissemination component, that have
13 organizations, non-profit organizations that
14 are really providing the outreach actively
15 involved, very familiar with other funding
16 sources. We get some funding from the
17 (inaudible) Health Policy, whose federal agency
18 is very interested in the field of agricultural
19 health.

20 They fund -- They don't fund universities,
21 mostly they fund organizations that are out
22 delivering services. And I think we need to
23 think about some collaboration between those
24 who deliver and those who do the research. And
25 I know that we've just begun, but perhaps NIOSH

1 needs to think about career programs that are
2 specifically geared for research institutions
3 that require collaboration with those out in
4 the field, and then grant programs where those
5 who are out in the field require collaboration
6 with research institutions because we want to
7 make sure that the research that's being done
8 reaches the farming community. And I can say
9 that both I-CASH and the Great Plains Center
10 have been actively involved with doing that.
11 And I think what's happened in Iowa is a
12 wonderful model for other states to follow.
13 And as we expand to other states, we are going
14 to actively be looking to other universities to
15 partner with us in delivering services to
16 health professionals and farmers. Thank you.

17 **DR. SANDERSON:** Thank you, Natalie. We
18 appreciate that. Our next speaker is Marty
19 Limmex. Marty, could you tell us where you're
20 coming from and fill us in?

21 **MR. LIMMEX:** This is Marty Limmex and I'm a
22 safety consultant for an Iowa-based utility.
23 (Inaudible) With the vehicles, NIOSH has done
24 a lot of research. A more recent report was
25 with regards to how to (inaudible) delivery

1 trucks. (inaudible)identifying the hazards of
2 these trucks that are problems that the
3 employees face, the slips, trips, the strains,
4 the potential strains, diesel emissions, noise
5 levels, et cetera. But, they never really
6 developed a standard.

7 I guess I'd like to speak for all construction
8 vehicles and service vehicles. This is an
9 ongoing battle with safety consultants. We are
10 constantly faced with trying to reduce slips
11 and trips getting on and off the vehicles and
12 in back of the service part of the vehicle.

13 There's really no standards in place for, like,
14 in the building construction trade, every step
15 that you go up to in a building is typically
16 between 15 and 17 inches. There's no standard
17 for vehicles for getting on and off.

18 So everything that we do has to be custom done,
19 which adds -- It's tough to get our customers'
20 employers to do -- to get the vehicle
21 ergonomically equipped.

22 The other item with the vehicles is diesel
23 emissions, just wanted to push an effort to put
24 forth and encourage the use of Iowa-based
25 fuels, (inaudible) potential hazards that we

1 see with diesel emissions. We constantly
2 struggle with the placement of the exhausts.
3 There's no set standard out there, once again,
4 but we go to manufacturers to get the vehicles
5 built and it's always something special we have
6 to pay extra for it.

7 And the third item is noise levels within
8 vehicles. There's always been a standard for
9 quite sometime where noise levels an operator
10 in a cab can have so that his cab is totally
11 closed and the vehicles open up where you have
12 constant readings over maybe two to three
13 decibels over an average for operators of
14 vehicles going down the road.

15 So that was a concern of mine and there's a lot
16 of research that we can use out there on
17 vehicles, construction and service vehicles,
18 but there's just not a lot to help us out with
19 -- just go back and maybe preventing less trips
20 and strain coming on and off vehicles. On the
21 ergonomics side, our diesel emissions and our
22 noise levels.

23 The second item I just talked was from the
24 standard that's going to be forthcoming here
25 from OSHA and NIOSH has done a lot of research

1 on that. (Inaudible) That's all I have. Thank
2 you.

3 **DR. SANDERSON:** Thank you, Mr. Limmex. We're
4 at a point now -- Has Mr. Tyler shown up? No.
5 Okay. We're at a point now where we can take
6 any comments from the audience. It's basically
7 an open-mic period. If anybody would like to
8 say something. Dr. Ken Culp from the College
9 of Nursing here at the University of Iowa.

10 **DR. CULP:** Thank you. I'm Ken Culp. I'm
11 director of the graduate program in the
12 Occupational Health Nursing Core at the
13 Heartland Center. And I just wanted to make
14 some antidotal comments about the supplemental
15 NORA funding that the centers receive.
16 Like many nursing faculty entering the field of
17 occupational health, many of us have had
18 established careers in other specialty clinical
19 areas, and mine was in aging. And in fact at
20 the time that I became director of the Center,
21 I had R-01 funding from the National Institute
22 of Aging, as well as R-15 funding from National
23 Institute for Nursing Research. And I've
24 really found this supplemental funding that the
25 centers receive and the flexibility as it

1 currently exists very, very helpful in
2 facilitating my career and actually I think
3 improving the graduate education of
4 occupational health nurses.

5 In the three years that I've been able to get
6 some of this supplemental funding I've been
7 able to pursue work in studying problems of
8 older workers. And we recently did a survey,
9 for instance, in three counties here in rural
10 Iowa. Very basic questions about what is the
11 participation rate of older workers in the
12 workforce? And I guess I've had an ongoing
13 interest in older workers.

14 And I find it really -- I think a phenomena
15 that I don't know if NORA and NIOSH is going to
16 continue to place emphasis on older workers.
17 We have an aging workforce and when we move to
18 this sector classification system I feel like I
19 don't know how important it really is. Does it
20 all fall under special populations or what?

21 So I do hope -- You know, I'm not the type of
22 researcher that does some of the things that
23 NIOSH funds; the industrial hygiene, you know,
24 chemical toxicities. I'm the type of
25 researcher that's going to be looking at older

1 workers in the workforce, whether there's
2 increased injuries in older workers. We
3 recently undertook with that NORA supplement
4 another study here in Iowa in a meatpacking
5 plant looking at injury rates in older workers
6 and particularly minority workers as well.
7 So I would just advocate that we continue these
8 supplemental funds to the ERCs, and allow the
9 center directors the flexibility to allocate
10 those funds to the individuals that need it. I
11 think it works really effectively in its
12 current state. Thank you.

13 **DR. SANDERSON:** We have another in-house
14 speaker.

15 **MR. BRENSON:** Hi, I'm Joe Brenson from
16 facilities management here at the University of
17 Iowa. And I had not prepared anything, had not
18 intended to speak, but there's two things that
19 I think are very important for NIOSH to
20 understand.

21 Number one, supporting what Mr. Culp just said,
22 I think the aging workforce is critical. We've
23 done some looks at our workforce in facilities
24 management. We have places where our average
25 worker -- this is maintenance workers,

1 custodial staff and those folks are 53 years
2 old.

3 This is a big issue for us. There are a lot of
4 injuries for that. We have not a good injury
5 rate here and now we're really starting to look
6 at those things. So any work that you're doing
7 on aging workforce is tremendous.

8 Also, to support that, the other thing I want
9 you to think about is the sector. I think is a
10 great idea of the sectors. It looks very good.
11 The one sector that I'm not hearing anything
12 about is service, and we are a service
13 organization in facilities management and we
14 have that aging workforce.

15 Remember in the '80's we told our kids, get
16 your educations. Go get those good jobs.
17 Well, guess what? For once the kids listened.
18 They're out there getting the good jobs and
19 they're doing well.

20 But as manufacturing and all the other areas
21 start to diminish jobs, those jobs are being
22 created in service. And who's getting those
23 jobs? The older folks from the manufacturing,
24 and ag., and the other businesses are now our
25 employees in the service sector.

1 They're older, they're moving into service, and
2 we need to figure out ways -- Ergonomics seem
3 to be a huge issue for us and we need to figure
4 out ways that those folks can have good, safe
5 careers and be productive workers for a long
6 time and not be hurt.

7 So again I'm supporting what Mr. Culp said,
8 and hopefully you'll look at the service sector
9 because that's where I think a lot of those
10 older folks are. Thank you.

11 **DR. SANDERSON:** Okay. We're fortunate that we
12 are able to hook up Dr. Robert Aherin from the
13 University of Illinois, a good colleague also
14 in agricultural health. Bob, are you hooked up
15 with us?

16 **MR. AHERIN:** My name is Bob Aherin. I'm a
17 professor in the Agricultural Biological
18 Engineering Department at the University of
19 Illinois. I worked in the research and
20 education fields of agricultural safety and
21 health for a little over 30 years -- I don't
22 want to say well over 30 years; and just a few
23 comments. I commend NIOSH for its continued
24 support in research and academic activities,
25 development in the agricultural safety and

1 health area. Our industry has some significant
2 problems to the efforts that were made in the
3 '90's and the early 2000's by NIOSH. We have
4 certainly been able to understand many of the
5 problems better and have developed concepts and
6 interventions will have more of a lasting
7 impact on our industry and have had lasting
8 impact.

9 However, there are some issues that concern me
10 a bit, and I encourage NIOSH to take a look at
11 these. When we look at data that's been
12 presented on morbidity/mortality data a lot of
13 it's been analyzed, developed, or collected by
14 NIOSH researchers and other institutions, all
15 of them sponsored by NIOSH, as well as the
16 National Safety Council's Department of Labor.
17 The greatest problem that faces our industry,
18 based on the data that we currently have --
19 currently we need better data in the illness
20 and disease area, but by far the biggest
21 morbidity/mortality problem is traumatic
22 injuries. Yet, when I pursue or review the
23 research projects that are involved with some
24 of these, both in health and traumatic injury
25 side of things and supported to the centers and

1 other sources, particularly by NIOSH, it
2 appears to be -- while I don't have hard data
3 -- it appears to be that somewhere in the
4 neighborhood of 67 percent of the research
5 projects are focused in illness/disease issues.
6 And part of that might be the nature of the
7 people who are applying, whether these centers
8 are funded, and these are certainly areas --
9 the disease/illness areas are needed. There's
10 a lot of issues that are in need of being
11 evaluated and understood better.
12 Yet, I feel that we are not really addressing
13 as strongly as we should the traumatic injury
14 problems in agriculture. And I would encourage
15 NIOSH to review, you know, where is the funding
16 going? I have a hard time putting all that
17 data together, I'd like to do that to see if
18 there's an imbalance here to some degree.
19 And if there is, as I perceive there is, I
20 would encourage that there are -- we need a
21 greater effort to fund traumatic injury type of
22 research problems.
23 We have a number of needs in this area and you
24 are addressing several of the critical ones,
25 particularly the tractor overturn issues that

1 are going on and have been going on. And this
2 is certainly very important work, but when we
3 look at traumatic injuries there are other
4 issues with general machinery, there's problems
5 with (inaudible) equipment structures. We need
6 better designs for structures. We have a real
7 problem with (inaudible) that have appropriate
8 fall-out systems, particularly in grain bins
9 and silos. The musculoskeletal injuries are
10 very significant in all our workforces. The
11 dairy industry and the (inaudible) industry,
12 and we need to continue that work and enhance
13 the work in those areas to prevent the high
14 percentage of back injuries that are occurring
15 and other musculoskeletal type of injuries I
16 think are also -- We are going to work with you
17 to continue your enhanced work in that area.
18 We need to take advantage and think also of the
19 new technologies and enhance those (inaudible),
20 particularly in the areas of sensory
21 technologies that have potential -- and the
22 research that I read on this is that and the
23 people I work with here and other locations
24 I've talked to there's great potential to help
25 us do a better job of automating our equipment.

1 Even so our older equipment can be adapted to
2 better prevent injuries in the first place and
3 to take the place of a (inaudible), where it
4 cannot use (inaudible) both in our equipment,
5 as well as other industries. And there's a
6 need for further research and see how to adapt
7 and utilize that technology. It's already
8 being heavily developed and could be applied to
9 safety and health issues and traumatic injury
10 issues in our industry as well as other
11 industries.

12 And final comment, when we talked about special
13 populations, and some of the previous speakers
14 already discussed this here and also the other
15 hearings you had, but I also concur that one of
16 the areas we have not looked at very closely --
17 we did a lot of work on child safety issues and
18 some special populations such as migrants and
19 Amish workers and so forth, but we do need to
20 take a closer look at the older workforce.

21 Because we need to draw better guidelines,
22 appropriate tasks, grain workers need to be
23 aware of risks and how to minimize those risks.
24 We learned mortality/morbidity injury rates to
25 worker's over 55 or close to all the studies I

1 reviewed had a more significant experience as
2 far as incident rates in this area. There is
3 research being done and that we need to look at
4 these issues.

5 And a final comment is that it is very
6 important at the beginning that you continue
7 your efforts in research to practice because
8 our industry's not as heavily regulated as
9 other industries. That's an issue we need to
10 look at closer and the appropriateness of that
11 to try to change some of the culture to some
12 degree and I think it's happening to some
13 degree. But we need to try to incorporate in
14 the social structures of agriculture the
15 adoptions of the way the state practices
16 interventions that we write out our research
17 hoping that the industries serve the production
18 agriculture in the farming industry itself.
19 I thank you for your time and appreciate making
20 some comments.

21 **DR. SANDERSON:** Thank you, Bob. Again, it's an
22 open mic. Anybody in the audience wish to
23 speak or anybody who is connected online?
24 We have someone else. Tom Cook.

25 **MR. COOK:** Yeah, thanks Wayne. My name is Tom

1 Cook. I'm on the faculty here in occupational
2 and environmental health and physical therapy
3 and international studies. I just have two
4 areas that I think NIOSH needs to look at or
5 continue to look at.

6 The first of those is the international
7 involvement of NIOSH. I've been fortunate
8 enough for the last -- well, ten years now,
9 since 1996, to be involved with the Fogarty
10 International Center and the International
11 Training Program in Occupational and
12 Environmental Health. During that time we've
13 been able to bring over 60 physicians and
14 health professionals from central eastern
15 European countries, West Africa, and South
16 African here to the University to participate
17 in our programs and to connect with our faculty
18 and our faculty mentors.

19 They've done a number of things. They've
20 enriched our curriculum so that we now have
21 students who interact with people who
22 understand different social systems, different
23 health systems and so on. So it certainly
24 enriches our students, but I think it also
25 keeps us in tune with this whole globalization

1 thing.

2 And I think of research priorities for the next
3 ten years -- We're all overwhelmed with what's
4 happening in terms of globalization and
5 outsourcing, and other things. Clearly in the
6 next ten years our occupational health and
7 safety issues are going to be more and more
8 entangled with the world's occupational health
9 and safety issues. I think there's a lot that
10 can be learned by comparing and contrasting
11 other countries and other things that are going
12 on. I give you a couple quick examples just
13 from our program, which is one of 16 programs
14 that NIOSH helps fund.

15 We've done a couple of studies; ergonomics in
16 Slovakia. And again, the different healthcare
17 system, a different social system, different
18 economic system, and but yet the
19 musculoskeletal injuries to construction
20 workers are fairly identical, except for hand
21 and wrist, and upper back. So that's an
22 example of -- We're still trying to figure this
23 out, but that's an example of, you know, by
24 sort of these natural experiments by the way
25 things are done differently in different

1 countries, we can learn something about how we
2 do things and how we might do things better or
3 how they might do things better.

4 PCBs, again, in Easter Slovakia, there's sort
5 of natural experiment, there's a place there
6 where workers and people have been exposed to
7 inordinately high -- some of the world's
8 concentrations of those chemicals. We can't go
9 out and do that experiment and just say what
10 are the health effects of PCBs in the workplace
11 in this country? But we have a natural
12 experiment by studying the health of those
13 people.

14 And similarly pesticide use in Gambia and West
15 Africa. Dr. Sanders and others have been
16 involved -- and Kelley have been involved with
17 some of our students from there and there's
18 just a lot to be learned about, again,
19 pesticide use, toxicity, fertilizer, and other
20 things. So I think over the next ten years
21 NIOSH will need to be more and more in tune
22 with what's happening in other parts of the
23 world because the world is shrinking, like it
24 or not.

25 The second area that I would like to encourage

1 NIOSH to be involved in is information and
2 communications technology, and that's probably,
3 you know, looks like a natural for me since
4 I've been pushing all the buttons and doing
5 this stuff. But I really think that, again, it
6 would be wise of NIOSH to take advantage of the
7 ever-changing technology for communicating
8 ideas and information.

9 We just heard, you know, our previous speaker
10 talk about research to practice and certainly
11 NIOSH has been active in that area, but I think
12 we can do a whole lot more. I think we need to
13 understand from a social marketing point of
14 view, where do people get their information?
15 Where do they get the messages to change their
16 behaviors?

17 We really live in a sound bite, bumper sticker
18 society and we need sound bites and bumper
19 stickers that send NIOSH messages, you know,
20 and health and safety messages. And I don't
21 think we understand how to most effectively
22 deliver that information. For example, we know
23 farmers get most of their information from the
24 radio when they're out in the field driving
25 their combines and tractors.

1 So I think we would do well to do things like
2 the FACE Project is doing; publish in, you
3 know, Waste Management Magazine and places that
4 things that are laying around in the break room
5 of the service workers that we talked about
6 earlier.

7 And then I think we could use the
8 communications and information technology like
9 we're doing now, in terms of sort of spanning
10 time and space and involving people who don't
11 come to scientific meetings and don't read
12 scientific journals or maybe don't go to the
13 NIOSH website. Maybe we need to go to them.
14 I think the idea that if you build it, they
15 will come might work for baseball in Dyersville
16 or *Field of Dreams*, but it doesn't work
17 necessarily -- We can't be satisfied that we
18 build the world's greatest website with all the
19 information in the world. Many times the
20 people who need it most are the least likely to
21 come to those places. And I think we need to
22 beat them over the head, if you will, with the
23 information that they need to hear.

24 So I think those two, international involvement
25 and information technology will be very

1 important in the next ten years. Thanks.

2 **SUMMARY: WAYNE SANDERSON**

3 **DR. SANDERSON:** Okay. Last call for any final
4 speakers? All right. Then I think what I'm
5 going to do is sum up, and then we will turn
6 the meeting over to our NIOSH colleagues for
7 their final comments.

8 First of all, extreme gratitude for everyone
9 who came and connected with us via the
10 internet, via this Illuminate, but in
11 particular the people who were able to travel
12 and come and spend their time with us. And
13 we're delighted that we were able to host this
14 meeting for NIOSH. We are delighted in our --
15 and we certainly enjoy all the interaction
16 we've had with NIOSH over the years and the
17 great things we've been able to accomplish
18 together.

19 And we had a pretty decent session this
20 afternoon. Most of the folks spoke in the
21 morning, but we were grateful that several
22 people stuck with us and continued the session
23 here in the afternoon. I want to summarize
24 some of the things that have been said more in
25 the afternoon, since we've already summarized

1 the morning.

2 Clearly being Iowa, I think there's been a
3 strong focus on agriculture. And I think that
4 reflects the region in which we're in, but we
5 were fortunate that other people did add to
6 other industries and other sectors, which are
7 also important. First we heard from Natalie
8 Roy who raised an excellent point is that we
9 have done a lot of work in research and NIOSH
10 is wise to move that into the next realm, which
11 is to take that research and put it into
12 practice and that has clearly been a focus of
13 John Howard.

14 And Natalie echoed that and says okay, take
15 your research, train people, and then interact
16 more with people like her and her group,
17 AgriSafe Network, who are actually getting it
18 down on the grass roots level, where the rubber
19 hits the road, so to speak.

20 Marty Limmex is a safety consultant and spoke
21 with us about two issues in particular. One
22 was NIOSH's help on more safety standards.

23 That the research has been done, a lot of good
24 research has been done, but hasn't really moved
25 forward enough to develop standards that

1 actually encourage manufacturers and industries
2 to put these research messages into practice.
3 And in particular he raised the issue of the
4 Chrome Six Standard and how to have a
5 field-ready or a good field method for actually
6 evaluating exposures to Chrome Six.
7 Ken Culp raised the issue of the aging
8 workforce. And being an aging baby boomer
9 myself, I certainly know what he means that
10 it's harder and harder to do things that you
11 could at one time do and this was also echoed
12 by Joe Brenson speaking about aging workers.
13 And of course, Ken was really grateful for the
14 supplemental funding that NIOSH has afforded to
15 the ERCs and the great work that we're able to
16 do with that type of funding.
17 Professor Aherin joined us from Illinois and
18 emphasized traumatic injuries. And he doesn't
19 have the data to back it up, but I think he's
20 probably right in that when you heard Murray
21 Matson speak this morning about the
22 surveillance work that he does, clearly it's
23 traumatic injuries that we see a lot more in
24 agriculture than it is the disease issue.
25 Although, it seems like most of our research

1 has been focused on illnesses rather than
2 focused on traumatic injuries and he raised
3 that point. He also echoed what Dr. Culp said
4 about the older workforce and how this is a
5 particular issue in agriculture where the
6 average age of our farmers in many regions of
7 the country are in their fifties. And that
8 means that there's still a lot of people doing
9 farm work who have reached the age at which
10 many people are already beginning to retire.
11 I'm going to double check and make sure I
12 didn't leave anybody out. I think I've covered
13 everyone, with the exception of our final
14 speaker, who is Dr. Cook. And he was
15 well-timed to talk about the international
16 aspects, something very near and dear to his
17 heart. And I echo what he says, the
18 international involvement that we've enjoyed
19 here at the University of Iowa definitely
20 enriches not only our training program, but our
21 research program. And as the world shrinks due
22 to the increase in communication technology, it
23 gives us the great ability to connect with
24 people who are doing the same things, only in
25 different settings. And had we had the

1 wear-with-all to do it, we could've been
2 connected to his colleagues in eastern Europe
3 today and all over the world just as easily as
4 we did the people who were in Illinois and
5 Missouri and other locations.

6 And of course, this communication technology,
7 we're hopeful -- that you saw the flavor of it
8 today and saw its ability to actually increase
9 our outreach in the future.

10 And with that, again, I want to thank you for
11 coming and I would like to turn the duration of
12 our meeting over to Dr. Sidney Soderholm.

ADJOURN

SID SODERHOLM, NIOSH

13 **DR. SODERHOLM:** Well, thank you, Wayne. As
14 always, these meetings are tough on them at the
15 airport, but they're very invigorating when I'm
16 sitting here and listening to the passions, to
17 the ideas, and to the thought people have put
18 in. And we do continue to encourage people to
19 give us even more detailed information through
20 the various routes that are available to get it
21 into the docket.

22 I'd like to thank Kim and Deb, and all of those
23 who have worked to make this possible. There
24 are certainly many people in NIOSH who were

1 holding up our end of it, mostly in Max Lum's
2 office of Health Communication and some of them
3 have been here today. And so we appreciate
4 everyone who has worked to make this a reality.
5 As a token of our thanks to our two cosponsors,
6 the two centers, I have a couple of plaques.
7 And so Wayne, I would like to thank you as
8 director of the Great Plains Center for
9 Agricultural Health for helping to make this a
10 reality.

11 **DR. SANDERSON:** Thank you very much, Sid.

12 **DR. SODERHOLM:** And Nancy, the small crack in
13 this more reflects my carrying of it than our
14 relationship I'm sure. So thank you and the
15 Heartland Center for Occupational Health and
16 Safety.

17 **DR. SPRINCE:** Thank you very much.

18 **DR. SODERHOLM:** And with that, we will complete
19 and head our ways. Travel safely and work
20 safely.

21 **MR. TYLER:** So I basically have two broad
22 questions. One question is, I think that there
23 needs to be a greater effort in a concern about
24 tinnitus. There's lot of interest and
25 noise-induced hearing loss at times, but it

1 seems like there's very few research activities
2 funded. It's hard to find information on the
3 web page and in fact in many situations
4 tinnitus can be much more debilitating than
5 hearing loss. And I don't think that's widely
6 appreciated, and it think deserves more careful
7 attention.

8 So my second -- Should I just go ahead?

9 **DR. SANDERSON:** Sure. Sure.

10 **MR. TYLER:** My second question is, there have
11 been standards for noise-induced hearing loss,
12 and recommended limitations of noise exposure
13 for decades. And it's my impression that
14 workers are still getting noise-induced hearing
15 loss and tinnitus from the exposure. And I
16 wondered if people appreciate why that's the
17 case, and if they do, if there's a chance of
18 changing the standards.

19 I think there's lots of evidence to suggest
20 impulsive noise is much more damaging than
21 continuous noise; that's one major reason. And
22 I think a second major reason is that there are
23 lots of workers that work more than 40 hours a
24 week. And the standards in fact are based --
25 The noise exposure limits are based on research

1 done many years ago where workers were exposed
2 to 40-hour work weeks.
3 And I think that those two factors in
4 themselves have probably been major factors.
5 There are many others, but I think that many
6 people would largely argue that the attempts to
7 prevent noise-induced hearing loss and tinnitus
8 in workers based on the current guidelines for
9 noise exposure have frankly failed. Thank you.
10 (Whereupon, the meeting was adjourned at 3:30
11 p.m.)

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CERTIFICATE OF COURT REPORTER**STATE OF GEORGIA****COUNTY OF COBB**

I, Shane Cox, Certified Court Reporter, do hereby certify that I reported the above and foregoing on the day of February 17, 2006; and it is a true and accurate transcript of the testimony captioned herein.

I further certify that I am neither kin nor counsel to any of the parties herein, nor have any interest in the cause named herein.

WITNESS my hand and official seal this the 2nd day of April, 2006.

SHANE COX, CCR**CERTIFIED COURT REPORTER****CERTIFICATE NUMBER: -2484**