

THE U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
PUBLIC HEALTH SERVICE
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 Washington, D.C., on
March 13, 2006.

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March 13, 2006

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TRANSCRIPT LEGEND

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

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-- "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.

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PROCEEDINGS

(9:05 a.m.)

OPENING REMARKS

1
2 **DR. HOWARD:** Hi, my name's John Howard and I'm
3 pleased to welcome you to our town hall meeting
4 here in Washington -- yes, Washington is a town
5 that deserves its own town hall meeting -- and
6 I think many of you may have participated in
7 the town hall meeting almost ten years ago.
8 And could I have a show of hands to see how
9 many people actually -- ah, there's a few
10 people. Marilyn, I think -- were you in charge
11 of the whole -- no?

12 **UNIDENTIFIED:** Marilyn was in charge.

13 **DR. HOWARD:** Marilyn was in charge, right.
14 Well, it's pleasure for me to welcome each of
15 you here today. And for those of you who
16 haven't been at any of the town hall meetings,
17 this is part of a process in which we're
18 launching the second ten years of the National
19 Occupational Research Agenda. As many of you
20 know, in 1996 the first ten years were launched
21 with great fanfare, and the agenda has been
22 very successful over the last ten years. And
23 now we're embarking on that second ten years,
24 2006 to 2016.

1 We're heading towards our 2006 NORA symposium,
2 which will be here in Washington. So if all of
3 you in Washington can come to that, we'd be
4 very pleased. It is April 18th starting at
5 1:00 in the afternoon at the L'Enfant Plaza
6 Hotel, and you can go onto our web site and
7 register for that, so we'd be pleased to see
8 all of you there.

9 Today we're going to hear from you, and I'm
10 going to shut up and sit down here in a few
11 seconds. But I just wanted to explain that
12 we're all here to support this agenda in its
13 second ten years, and you'll hear about some of
14 the ways that we've changed things.

15 And I just wanted to comment on one aspect of
16 that in that in the second ten years we're
17 going to be looking at industrial sectors as
18 the focus, with a research to practice
19 approach. Industrial sectors like mining and
20 agriculture and construction and services and
21 trade and healthcare, et cetera, those are the
22 way work is organized in the country. That's
23 the way both employers as well as workers,
24 labor unions and others see themselves, and
25 often problems are quite different and unique

1 across those sectors.

2 In the first ten years we organized ourselves
3 along a more traditional health outcome or
4 academic approach. This second ten years is
5 different, and we are very pleased to receive
6 any input that you would like to offer us on
7 how to do that. The materials that we have on
8 our web site explain, at the beginning of this
9 launch period, of how we're going to organize
10 ourselves with research sector councils which
11 we hope some of you will participate in.

12 But the whole focus of these next ten years, as
13 the Institute itself, is focused on three major
14 core values. One is relevance. We want to
15 make sure that our work is relevant to real-
16 world problems in these industrial sectors.

17 The second core value is quality. We want our
18 work to be of the highest scientific quality.

19 And third is impact. We want our work to make
20 a difference in the end. And even basic
21 research can make a difference in terms of
22 moving the questions along as we further
23 science into intervention, change in the
24 workplace. So those three values of relevance,
25 quality, impact are the ones that will be our

1 predominant core values for NORA II.

2 So again, I welcome each of you here today.

3 Thank you for coming, and look forward to

4 hearing your comments.

5 My last job is to introduce Max Lum, who is our

6 associate director for communications, and Max

7 is going to tell you a little bit more about

8 our town hall meeting and what we're going to

9 do today. Thanks.

10 **DR. LUM:** Thanks, John. Welcome to this

11 Washington, D.C. town hall meeting. This is --

12 let me get this straight, but I think this is

13 number ten in a series of 12. We've been out

14 and around the country over the last three

15 months, talking to folks, having them talk to

16 us about their concerns about workplace safety

17 and health, problems, areas really that NIOSH

18 should be focusing on. And I think we're --

19 with this meeting certainly we'll be over 1,000

20 folks who have joined us in these town hall

21 meetings.

22 And we'll have more about what we've heard and

23 what we found in some of those meetings this

24 afternoon. We'll kind of do a summary of some

25 of the areas by -- by sector, what we're

1 hearing -- and some of it's quite different
2 than we heard ten years ago.
3 So in 1996 I think NIOSH -- and most of you are
4 familiar with NIOSH. NIOSH is the National
5 Institute for Occupational Safety and Health,
6 and part of the Center for Disease Control. We
7 looked around for a better mechanism to
8 organize our research. And we focused on a
9 NORA activity, and as we developed this, the
10 National Occupational Research Agenda, as a
11 guiding framework, it clearly I think became
12 very early clear to us it wasn't just a
13 framework for the Institute. It wasn't just
14 for NIOSH. It really was a framework that we
15 could use to guide the national agenda for
16 occupational research, and in fact that is what
17 NORA has become.
18 And it's very important I think for us to
19 realize that it isn't just an Institute focus.
20 It really is a national focus because it's
21 allowed us over the last ten years to broker
22 our relationship with our partners. And
23 partnerships are extremely important for NORA.
24 I think the original NORA, several hundred --
25 500, I think -- finally joined in this effort.

1 Again, we've reached 1,000 folks just in this
2 town hall effort, and we know there are more
3 coming to the symposium. But the idea really
4 is its research with a partnership focus.
5 And today we're going to not talk to you --
6 we'll talk to you a little bit about what the
7 new NORA will look like. Sid Soderholm, our
8 NORA coordinator, will kind of give you a brief
9 overview of what the new NORA's planned for,
10 but really we want to hear from you. That's
11 why we're here. And we want to make sure we
12 have enough time to do that.

13 And the town hall meetings are extremely
14 important for -- not only for NORA, but I think
15 for NIOSH. I remember almost to the date ten
16 years ago we had a town hall -- we had three
17 town hall meetings in 1996 -- Seattle, Chicago,
18 Washington, D.C. We had some mini-meetings
19 also at that point.

20 But in the Washington, D.C. meeting, which was
21 held upstairs right next to our celebrated
22 cafeteria, we heard a very compelling testimony
23 from three nurses from Philadelphia who brought
24 a patient with them to talk to us about a very
25 important subject, latex allergy. Now latex

1 allergy was an issue that was on the NIOSH
2 agenda, but it wasn't -- let's say an active
3 agenda item at that point. And it was clear
4 that this is an area -- this latex allergy, the
5 wearing of latex gloves by healthcare workers,
6 certainly debilitated some of the workers. The
7 worker they brought who was a patient certainly
8 was a very compelling focal point I think for
9 the importance of us looking at this area
10 immediately. And I think within a year or so
11 that we pretty much had sent an alert to every
12 hospital in the country informing them of this
13 condition and have continued to do research in
14 this area.

15 In the Salt Lake City meeting we had a couple
16 of weeks ago, the person that introduced and
17 helped us design that meeting, Kurt Heggeman,
18 works at our Educational Resource Center out
19 there, he spoke again about how important that
20 1996 meeting was into organizing his thoughts,
21 and how that really his approach in that -- in
22 that meeting was to put forward some ideas that
23 were -- later became a focal point of NIOSH
24 research in musculoskeletal disease.

25 So the meetings are very important, and the

1 town hall meetings hopefully carry over -- the
2 partners that we meet during these sessions
3 carry over into partnerships that we continue
4 on as we go for the next decade really of NORA.
5 So with that, I think at this point -- just an
6 overview. Again, I can't thank you enough,
7 here in Washington particularly, for giving up
8 a few hours of your day. I know some of you
9 plan to be with us all day and we do appreciate
10 that. Thank you for coming at this point, and
11 we're anxious to hear what you -- you have to
12 say.

13 Before we hear from Sid, though, I'd like to
14 introduce Bobby Jackson just to say a few
15 words. Bobby Jackson is a focal point really
16 with one of our partners, the National Safety
17 Council. He's the senior vice president at the
18 National Safety Council for national programs.
19 And also I can't say enough really about the
20 partnership with the National Safety Council,
21 particularly the symposium that's coming up in
22 April and their work and help, really over the
23 last ten years. So Bobby, please.

24 **MR. JACKSON:** Thank you, Max, for that gracious
25 introduction. As Max indicated, I'm the senior

1 vice president of the National Safety Council
2 here in the Washington, D.C. office. We're
3 honored and privileged to be here and certainly
4 appreciate the invitation by NIOSH to present
5 here today.

6 It's always a pleasure to share the dais with
7 Dr. John Howard -- as all of you know, someone
8 who is dedicated to safety and health to
9 workers of this nation. Certainly we at the
10 National Safety Council endorse those and
11 participate in those lofty goals of Dr. Howard
12 and all of you at NIOSH.

13 As I said, the National Safety Council
14 appreciates the opportunity to appear at this
15 meeting today and being offered the opportunity
16 to convey our support of NIOSH and their
17 management of the National Occupational
18 Research Agenda. In fact, we've presented
19 statements at two previous meetings early on in
20 this process at College Park, Maryland and in
21 Chicago, Illinois. Alan McMillan, the
22 president and CEO of the National Safety
23 Council, spoke at that Chicago meeting -- town
24 hall meeting on December the 19th. As he
25 noted, the Council has been longstanding

1 supporters of NIOSH and the NORA objectives.
2 We intend to continue this collaboration, as
3 evidence by the fact -- as Dr. Howard mentioned
4 and Max mentioned -- as cosponsors with NIOSH
5 of the NORA symposium here in Washington, D.C.
6 on April 18th through the 20th. And as Dr.
7 Howard mentioned, it is a tenth anniversary
8 celebration of NORA.

9 By way of background, the National Safety
10 Council is a Congressionally-chartered national
11 safety and health organization with a very
12 simply stated mission, to educate and influence
13 people to prevent injury and death. The
14 Council and its nearly 18,000 members at over
15 48,000 locations are committed to fulfill its
16 mission. Moreover, we're always mindful of the
17 benefits of working with agencies and other
18 organizations to accomplish these goals.
19 The Council views partnerships with federal and
20 state agencies and other safety and health
21 organizations and companies and others who can
22 influence public policy in order to accomplish
23 its mission. Sharing ideas, research,
24 programs, initiatives and training is critical
25 to the Council. NIOSH and the work through

1 NORA is one of the most important collaborative
2 initiatives that we have.

3 Now as you may know, the Council has many
4 strategic partnerships, cooperative programs
5 and working alliances with agencies and others.
6 All of these serve as the basis for our work.
7 We understand that we cannot responsibly or
8 effectively perform our work alone. For
9 example, we have a formal alliance agreement
10 with the Occupational Safety and Health
11 Administration, as well as the Mine Safety and
12 Health Administration. We have formal
13 Memorandums of Understandings, MOUs, with the
14 Consumer Products Safety Commission and CDC's
15 National Center for Injury Prevention and
16 Control. And we have an agreement in place
17 with NIOSH to foster appropriate cooperative
18 research projects. These joint efforts between
19 the National Safety Council and these federal
20 agencies enhance each organization's respective
21 objectives.

22 Much of the work that the National Safety
23 Council performs is conducted within the public
24 policy arena, and the Council is deeply engaged
25 in public policy. We identify, we develop and

1 implement many initiatives which must be
2 supported by research and data. One of the
3 frustrations of working in the public policy
4 arena is not necessarily the bad information
5 that we have to combat, it's no information, or
6 it's not necessarily the informa-- that the
7 information does not exist. It's often merely
8 that the information is not readily visible or
9 available to us. Thus to influence public
10 policy we must have substantive research and
11 meaningful data readily available, and it must
12 be persuasive to make a difference with
13 lawmakers and the public.
14 Consequently, we at the National Safety Council
15 will always encourage research be conducted,
16 that it be improved and that it be updated, and
17 that it be made readily available. The value
18 of the work of NIO-- that NIOSH accomplishes
19 and its use of NORA are crucial to our policy
20 work.
21 National Safety Council will continue to do
22 what is needed in its overall efforts to
23 accomplish this. We encourage NIOSH and all of
24 you to always be mindful of the value of your
25 resources that you provide and to help support

1 these efforts through your vital research.
2 We intend at the National Safety Council to
3 continue to strive to make America's workplaces
4 and our highways and our communities safer and
5 healthier for all the citizens of this nation.
6 Thank you.

7 **DR. LUM:** Don't go away. Again, this -- we
8 need something for your rearview mirror to hang
9 on. This is a small token of our -- of our
10 appreciation for all the help that the Safety
11 Council gives. Again, this says (reading) For
12 the leadership in organizing a town hall
13 meeting for the National Occupational Research
14 Agenda -- we should also add the symposium
15 coming up -- we appreciate your dedication in
16 advancing the safety and health of workers
17 throughout the nation.

18 Thank you very much. I think the key word in
19 there is leadership. We do appreciate it.
20 Thank you again.

21 **MR. JACKSON:** Thank you. I want to thank you.
22 Just a quick statement. I appreciate this and
23 I will share it with our staff -- our staff,
24 who are the people who really make this happen.
25 I don't know if it's anything significant or

1 not, Dr. Howard. I'm not sure whether this
2 logo is quite -- you know, the red square.
3 Maybe it works with the NORA underneath it.
4 That's fine. Thank you very much for your time
5 and -- this morning. And Max, thank you very
6 much, Dr. Howard.

7 **DR. LUM:** We've heard about the Soviet look of
8 our NORA, this is not the first time we've
9 heard that, so we'll -- we'll look at it again,
10 but -- again, we want to get on with the town
11 hall meeting. Thank you, Bobby, again.
12 Sid Soderholm's going to talk to us a little
13 bit about what the new NORA's going to look
14 like, and some other comments. Sid.

15 **INTRODUCTION TO RESEARCH AGENDA PROCESS**

16 **DR. SODERHOLM:** I was -- John -- as John just
17 asked, where does this thing project, so if --
18 look to my left if you're interested in the
19 slides.

20 So my name is Sid Soderholm. I'm the NORA
21 coordinator and I'll start where I'll end. If
22 you have any questions or issues or thoughts
23 about NORA, please -- please contact me, and
24 I'll give you some contact information here in
25 a few minutes.

1 So let's talk a little bit about NORA. The
2 NORA vision hasn't changed, and the NORA vision
3 is one of a national partnership effort to
4 conduct priority research. And that was true
5 ten years ago and it's -- it's still the same.
6 Some of the key components of that vision are
7 that we seek stakeholder input, and that's
8 certainly what we're doing here today and have
9 been doing a lot in the last -- last three
10 months. I've seen a lot more airports in the
11 last three months than -- than I'd seen in the
12 last ten years, I think.

13 A need to identify research priorities and work
14 together to address those priorities. Those
15 are key elements of the NORA vision. And
16 leveraging funds. During the first ten years
17 of NORA we were able to identify, through this
18 process, some NIH Institute mission objectives
19 that -- that corresponded with ours and were
20 able to put out IFAs and ask for research that
21 could be funded by both us and the National
22 Institute of Health institutes.

23 We hope in the next ten years to be able to do
24 even more than that, to have a lot more
25 leveraging of resources where your organization

1 and our mission correspond and we can both --
2 as Bobby was just telling us, the National
3 Safety Council, where by working together we
4 can both perform our mission better.

5 So what's different about the second decade of
6 NORA? As John mentioned, we're focusing
7 research to prac-- on research to practice in
8 workplaces through sector-based partnerships.
9 So we'd really like to improve our ability to
10 work with workers and employers who identify
11 themselves as being part of a sector, as -- as
12 everyone does.

13 So what is this approach? This approach will
14 address the most important problems in each
15 sector, and I'll talk a little bit later about
16 what those issues may be -- problems, issues.
17 It could be the risks that people face,
18 exposures; could be diseases, injuries; or
19 failures of the system. So any of these kinds
20 of things may be the kinds of issues that come
21 up and where research can most make the
22 difference.

23 We're talking about specifically having a
24 research strategy, at least one research
25 strategy in each sector group, and I'll talk

1 about the sector groups in a moment. So we're
2 -- we're getting very specific about the kinds
3 of research that needs to be done. And the
4 cross-sector needs, the diseases, the injuries,
5 the -- these problems, issues, most of them
6 cross sectors. And so the focus on the cross-
7 sector aspects that occurred during the first
8 ten years, that focus is not being lost. Those
9 issues haven't gone away. They're still here
10 and they still apply across sectors. So the
11 cross-sector needs will certainly be identified
12 and we hope, through the sector approach and
13 keeping track of those issues -- the parts of
14 the issues 'cause they can be best dealt with
15 cross-sector-wise to most efficiently deal --
16 conduct the research, identify and conduct the
17 priority research.

18 So John also mentioned this, why a sector-based
19 approach? Workplaces, workers, employers think
20 of themselves as sectors. We know what sectors
21 we're in. Many of the research needs do differ
22 from one sector to another. Certainly when you
23 come to apply even general research principles
24 to making a successful intervention in a
25 workplace, the approach, the communication

1 channels, the people who need to be involved
2 differ sector by sector.

3 The sector approach will really help us focus
4 on the goals and the objectives and -- and
5 getting those results to the people who can
6 make a difference. We think the sector
7 approach will help us partner with many more
8 organizations and individuals that we need to
9 be partnering with. And we think this is going
10 to be an efficient approach.

11 Now on this screen it's a little small. I
12 mentioned the eight sectors. We're working
13 with the North American Industrial
14 Classification System, which has about 20
15 sectors that they define. But we've grouped
16 them into what, for us, will be a little bit
17 more manageable sector groups and they're
18 listed here with some abbreviations. And
19 different town hall meetings have focused on --
20 have had a -- typically the afternoon session
21 that has focused on one or other of these
22 sectors. Other town hall meetings, like this
23 one, are focusing -- are interested in input on
24 all sectors.

25 So some of the sectors -- healthcare and social

1 assistance, which -- and then all the other
2 services are considered as a separate sector.
3 Mining is a sector; ag., forestry and fishing
4 are sectors, so these are the kinds of sectors
5 that we're talking about.

6 Each of these sectors will have a NORA research
7 council. This council will be co-led by one
8 person inside NIOSH -- actually will be one of
9 -- that person who's co-leading the council
10 will also be a person who's leading -- one of
11 the co-leaders of the internal NIOSH program in
12 that sector. The -- and then we'll also have
13 an external co-leader, and the membership of
14 these councils will be both internal and
15 external.

16 So the councils will focus on a research agenda
17 for that sector, and then there will be a
18 cross-sector research council, which is really
19 the executive committee. The cross-sector
20 research council's made up of the two leaders
21 of each of the sector research councils. So
22 those 16 people will come together to share
23 success stories, to identify infrastructure
24 needs and to help keep the whole process moving
25 forward.

1 And the NIOSH role in NORA is one of
2 stewardship -- I think Bobby called it
3 management -- and providing the infrastructure.
4 We don't own NORA. It wouldn't go forward
5 without us. It is a national effort, a
6 partnership effort.

7 So talk a little bit more about the research
8 councils. We're looking at diverse input that
9 will lead to robust research strategies. So
10 the first job, the -- the initial work of these
11 NORA sector research councils will be to take
12 this input, and front and center is the
13 stakeholder input like we're receiving in the
14 town hall meetings. If you haven't visited our
15 web site, the NORA web site, which I'll give
16 you later, also has an opportunity to submit
17 comments in the form of text to the -- to the
18 NORA docket. This -- so what's said here is
19 being caught in a transcript. Ray Green is in
20 the back of the room. He's talking into this
21 little mouthpiece as a court reporter. He's
22 catching every word, so then that transcript
23 will be entered into the NORA docket. Christy
24 Forrester of my office is going to be doing
25 that and you'll meet her later. And then

1 there's going to be an analysis -- or at least
2 an indexing of that docket, so I'll talk a
3 little bit more about that later. But this
4 input from the NORA town hall meetings, through
5 the docket, is going to be given to the
6 research councils.

7 In addition, of course, we have surveillance
8 data. We have data on what the major issues
9 are in occupational safety and health. And
10 always, as -- when you have expert people
11 sitting around a table, they bring their own
12 expertise. So from those inputs the research
13 councils will go through a priority-setting
14 con-- priority-setting, I hope it doesn't turn
15 into a contest. A priority-setting process
16 that will result in a draft research strategy.
17 So this research strategy will be then posted
18 on the internet and invite questions.

19 If you're interested in serving on a research
20 council, let me know -- or if you know the
21 leaders in that sector area at NIOSH, feel free
22 to let them know -- and volunteer. Also if
23 you're interested in keeping track of the
24 process but don't feel you have the time to be
25 on the research council, please let us know.

1 We'll put you on the mailing list so when these
2 draft strategies are available, you will be
3 notified and you won't have to keep coming back
4 to the web site, but you'll be notified and you
5 can let us know what your comments are on that
6 draft strategy.

7 So, talk a little bit more about your
8 participation. I've talked about volunteering
9 a little bit, and you're providing input today.
10 So the input today, as I mentioned, will go
11 into the -- into the NORA docket. Once it goes
12 into the transcript, Christy will enter it into
13 the docket through the web site. An
14 interesting part of that web site, the address
15 is there if you can see it. I was going to say
16 hopefully it's on some of the materials in your
17 folder, too. An interesting aspect to that web
18 site is there's a box to type in your comments,
19 and there's one box for each of the eight
20 sectors, and then a box for cross-sector issues
21 and a box for comments on the process. But if
22 you look to the left of that box, there's an
23 unassuming little link called "view comments by
24 others", and that's really becoming a very rich
25 source of information. So if you click on that

1 link, you can see the information that others
2 have put in. So the transcript will be
3 available on the web site, the first few are up
4 there now from the first -- the early town hall
5 meetings, and the comments inserted in -- among
6 those major categories will be soon available
7 on the web site. So I urge you to take a look
8 at that "view comments by others" link and see
9 what others have been saying.

10 The comments will be provided to the NORA
11 sector research council, and that's the main
12 purpose. They'll be provided as individual
13 comments. Everything that's said, everything
14 that you submit will be given to them, but we
15 will be picking out the -- we'll be
16 highlighting a particular thought and then
17 indexing that. So if a research council's
18 interested in looking at hearing loss -- what
19 do people have to say about hearing loss in
20 construction, they'll be able to go through the
21 index process, go -- and find that series of
22 comments that talked about hearing loss in
23 construction. And yet the whole comment,
24 everything that was said, will be there in
25 context, too.

1 So the -- that's the key. This input is going
2 to the research councils. They'll be making
3 the draft research agenda for the nation that
4 you'll be able to comment on.

5 Your input will also be outlined at the NORA
6 symposium. There are the dates again, April 18
7 through 20 here in town, and the web site where
8 you can register and learn more -- learn more
9 about the symposium. Really quite excited
10 about the -- actually all part of the
11 symposium, but the last day in particular.
12 We're going to have eight workshops -- two-hour
13 workshops, eight concurrent workshops in the
14 morning of the last day of the symposium, one
15 for each of these sector groups. We will be
16 presenting a brief summary of what's gone into
17 the docket. We'll be asking the people at the
18 workshop to -- to add issues. And then we'll
19 be doing some multi-voting. So at the end of
20 the workshop we'll have at least a point of
21 information about what that group felt were the
22 major issues in that sector.

23 Then that information will be reported out at a
24 plenary session and in the afternoon we're
25 going to have eight cross-sector workshops

1 defi-- if you look on the web site, six of the
2 eight have already been defined based on the
3 subjects that keep coming up at the town hall
4 meetings. These cross-sector workshops will
5 have the input about what's important in the
6 sectors, and the cross-sector workshops will be
7 coming out with what they feel the next steps
8 should be in this area to have -- for the right
9 research to get done and for -- to have the
10 most impact in the workplace.

11 So I'm very excited about that set of
12 workshops. And we have 200 posters that have
13 been submitted of NORA research. I think it's
14 going to be a very good symposium.

15 So talk a little bit -- focus a little bit more
16 here on what we're doing here today, what kinds
17 of res-- what kind of information do we think
18 we're interested in hearing? Very soon we'll
19 be sitting down, we'll be listening and you'll
20 be talking.

21 So the top issues might be formulated in terms
22 of a disease or an injury, exposure, a
23 population at risk or a failure of the
24 occupational safety and health system, or even
25 have your own way of -- you know, a different

1 way of formulating your description of what the
2 top -- a top issue is. It could be within a
3 sector, it could be cross-sector.

4 But if you have ideas, we're also interested in
5 what are the key partnerships? Who needs to be
6 working on these and these issues in the future
7 to really make a difference? And what kind of
8 research will -- will -- is needed to make the
9 difference, in the short term and in the long
10 term?

11 So we're asking for very brief presentations.
12 We realize in five minutes that you really
13 can't say everything that needs to be said
14 about your subject. What we're asking for are
15 the highlights. We are very interested, if you
16 have either a written version of your comments
17 or have additional material, to -- if you
18 could, give us a copy. You can leave it at the
19 front desk, you can hand to me -- I'll be down
20 front here -- even -- even give it to Ray at
21 the back desk. He takes them to make sure he's
22 got things spelled right and so on in the
23 transcript, and then he gives them to us. So
24 we -- we're very interested in anything else
25 that you have already written up.

1 Also you can go back to the web site and either
2 submit text, comments, or if you want to
3 include graphs and pictures and other things
4 that aren't text-based, then there's an e-mail
5 address on the web site where you can submit
6 information to the docket. So we're asking for
7 very brief presentations today, but we would
8 really like the richness of the information
9 that you have, also.

10 And the last point I'd make is that we're here
11 to listen and I hope we'll have time -- it's
12 very full schedule, so I hope we'll have time
13 or we -- we will make time to ask if others who
14 maybe didn't sign up to speak would like to say
15 some-- would like to stand up and speak. We
16 encourage you to do that, but whether you're --
17 whether you've signed up or haven't, we'd ask
18 that you -- that you provide us your opinion
19 rather than criticizing anyone else's opinion.
20 We're here to hear everybody and to hear what
21 everyone's input is.

22 I guess I've already switched that. A reminder
23 that this is -- unlike the other town hall
24 meetings, we're going to use the last hour of
25 it a little bit differently. Christy

1 Forrester, whom I mentioned, is going to give a
2 preliminary summary of her impressions and the
3 data she's collected about what's in the docket
4 already, and so it'll be a nice way to -- to
5 get a flavor of where all this input may be --
6 may be pressing NORA in the future.

7 We also, I hope, will have time at that point,
8 if individuals have input on the process, on --
9 on where -- you know, having heard the summary,
10 where -- where this is all going. We hope to
11 have just a few minutes at the end to really
12 talk about that.

13 So there are many ways in which you can keep --
14 keep participating. If you haven't already
15 signed up for -- for the NIOSH e-news, please
16 do that. There's a web site listed there. All
17 you have to do is type in your e-mail address
18 and that's it. What happens then is once a
19 month you get an e-mail from NIOSH. And if
20 you're too busy, you can delete it like all
21 those other e-mails, but we hope you'll take
22 time and read it because we -- the e-news boils
23 down into just 100, 200-word summaries a lot of
24 the -- a lot of what's going on in -- in NIOSH,
25 and you'll find something about NORA in there

1 every month. So if -- if you don't have the
2 opportunity to keep involved in other ways, at
3 least take the e-news and read those 100, 200-
4 word summaries every month and follow what's
5 happening in NORA.

6 There again is the web site where you can
7 provide the input. It's basically the NIOSH
8 web site. If you -- over on the left you'll
9 see National Occupational Research Agenda. If
10 you click there you'll be at the NORA web site.
11 And as I started, I will say if you have any
12 questions, please contact me. Any-- anything
13 you'd like to talk over, either my direct
14 address or noracoordinator@cdc.gov will work.
15 One thing I forgot to do, I usually put some
16 business cards on the front table. I'll do
17 that in case that -- the low-tech paper way is
18 still a good way for you to keep track of who I
19 am and how to reach me. I'll have my business
20 cards on the front table.

REGIONAL AND LOCAL SESSION: STAKEHOLDER PRESENTATIONS

21 So we'll finally get to the meat of the issue
22 today. I would like to introduce Kristen Borre
23 from the Southern Coastal Agrimedecine Center.
24 Kristen has kindly agreed to -- to be one of
25 the heavies to-- no, to -- to introduce people

1 and to keep us moving along today. And we have
2 a timekeeper and I'll let Kristen take over
3 from here, as well. Thank you.

4 **DR. BORRE:** Thank you very much, Sid, and I
5 appreciate that introduction. I'm glad to be
6 here and I'm looking forward to hearing
7 everything that everybody has to say.
8 As a part of my job as moderator I'd like to
9 outline how we will do the process. This
10 morning we will ask the first four speakers to
11 come up and have seats on the stage. And as
12 they complete their comments and return to
13 their seats, we will have the next four come.
14 That way we can have a smooth transition
15 process for the comments.
16 We ask that you keep your comments to five
17 minutes. Should you wish to speak longer than
18 five minutes, please end at the five-minute
19 period and you can talk to one of the NIOSH
20 folks out at the registration desk about
21 getting another five minutes to continue your
22 comments, should you wish to do that.
23 We're very fortunate this morning to have Ann
24 Berry -- Ann, would you please stand up? Ann
25 is our official timekeeper, so she's the heavy.

1 And she will give you a signal of one minute
2 remaining and (unintelligible) time, time to
3 wrap up and get off the stage. If you keep to
4 that we will have a fair process by which
5 everyone gets to speak their five minutes.
6 So without -- oh, and if you do have comments
7 written, remember to give them to either Max or
8 Sid down here in front, or leave them at the
9 desk. And also remember that your comments are
10 most welcome on the web site.

11 So without going any further, I'd like to ask
12 Bobby Jackson, Gary Fore, Donald Elisburg and
13 Mike Thompson to come to the stage. And --

14 **UNIDENTIFIED:** (Off microphone)

15 (Unintelligible)

16 **DR. BORRE:** Okay. And also David Covarrubias -
17 - and if I pronounce your name wrong, I
18 apologize, but is David here this morning?
19 David Covarrubias?

20 (No responses)

21 Okay, Jackie Nowell? Jennifer Sherman?
22 Schumann, Jennifer Schumann.

23 Okay. At this time I would like to ask Gary
24 Fore and Donald Elisburg to come to the podium.
25 And when you come to the podium, if you could

1 please state your name and the group that
2 you're representing, for the record.

3 **MR. FORE:** Good morning. My name is Gary Fore.
4 I am vice president for environment, health and
5 safety at the National Asphalt Pavement
6 Association. Accompanying me and also
7 representing NAPA is Don Elisburg, well known
8 for his ability to facilitate government,
9 industry, labor and academia partnership. NAPA
10 is the exclusive national trade association
11 representing the hot mix asphalt industry, with
12 about 1,100 members and representing the
13 majority of highway construction and street
14 paving in the U.S. As such, we and our
15 membership have invested heavily in health and
16 safety of 300,000 or more workers. Don and I
17 are here today to talk about the Asphalt
18 Partnership, which is now in its eleventh year.
19 Why have we come to this town hall meeting? As
20 participants in the Asphalt Partnership, we and
21 our partners in the Laborers International
22 Union of North America, the International Union
23 of Operating Engineers, the Asphalt Institute,
24 the Federal Highway Administration, and yes,
25 NIOSH, were the recipients of the very first

1 National Occupational Research Agenda Award for
2 Partnering in the area of worker health and
3 safety. This partnership has been successful,
4 successful in bring research into practice in
5 the workplace, and we believe it could serve as
6 a problem-solving template for other worker
7 health and safety opportunities. We want to
8 share both our enthusiasm for the concept of
9 partnerships and hopefully some insights
10 relating to the partnership process, and in the
11 end to bring some reality to this thing we call
12 partnerships.

13 A brief history of the Asphalt Partnership.
14 The foundation for the Asphalt Partnership was
15 laid in 1995 with the initiative to develop and
16 implement engineering controls for paving
17 machines. Participating were NAPA, the Asphalt
18 Institute, the Laborers Health and Safety Fund,
19 the International Union of Operating Engineers,
20 the Federal Highway Administration and, last
21 but not least, NIOSH. The result of this
22 effort was the publishing of engineering
23 controls guidelines for hot mix asphalt pavers
24 in January of '97, followed immediately with
25 the signing of a voluntary agreement with OSHA

1 to install engineering controls on all paving
2 machines manufactured after July 1 of that
3 year. The result? A significant reduction in
4 fume concentrations surrounding paving
5 operations. What otherwise would have required
6 years to accomplish through regulatory channels
7 was accomplished in 18 months.

8 Why did it work? Well, first off, all
9 participants in the partnership shared a
10 genuine concern about health of workers. All
11 participants share concerns about the paving
12 industry. All participants share a belief in
13 the value of trust and cooperation. And in
14 this case there was a need for cooperation.
15 Specifically, the uncertainty at the time of
16 asphalt fume and occupational safety and health
17 surrounding paving operations.

18 What has happened since 1995, the beginning of
19 the Asphalt Partnership? We have built on the
20 Asphalt Partnership foundation through a
21 continuation of the collaborative process and
22 inclusion of other important occupational
23 health and safety opportunities. In addition,
24 we have added additional stakeholders who bring
25 the core set of values as partners, including

1 academia. While we will not be exhaustive this
2 morning in delineating the substantial numbers
3 of partnership activities over the past 11
4 years, we offer just a few examples of recent
5 and current efforts -- again, to bring some
6 reality.

7 Last year we completed a major test program
8 working with NIOSH and the Center to Protect
9 Worker Rights to evaluate and validate the
10 effectiveness of engineering controls for
11 reducing exposures to asphalt fumes surrounding
12 paving operations. We assisted Harvard with
13 efforts to secure a National Cancer Institute
14 grant to conduct mechanistic research relating
15 to asphalt fume and human exposures. We
16 provided funding support to the Harvard School
17 of Public Health and worked with them to
18 investigate potential dermal exposures.

19 We have worked together for the past four years
20 in an effort to reduce injuries and fatalities
21 in highway work zones by developing and
22 delivering safety training materials for the
23 asphalt paving industry. Having securing
24 funding via a Harwood Grant, we extended the
25 Asphalt Partnership to form an OSHA Alliance

1 for work zone safety including NIOSH, the FHWA,
2 and the American Road and Transportation
3 Builders Association in this important
4 endeavor.

5 Currently we are working together to complete
6 targeted scientific research to fill perceived
7 gaps relating to the evaluation of asphalt
8 paving fume as we prepare for an eventual IARC
9 Monograph review of that subject.

10 I am happy to report this morning that we are
11 currently engaged in a partnership with NIOSH,
12 the Laborers Union, the Operating Engineers
13 Union, the Associated Equipment Manufacturers
14 and others to evaluate silica exposures
15 surrounding asphalt milling machine operations
16 and modeled after the highly successful paver
17 engineering controls effort.

18 Where to from here? We have just formed a
19 partnership effort with the FHWA, the American
20 Association of State and Transportation Highway
21 (sic) Officials, the State Departments of
22 Transportation, the State Asphalt Pavement
23 Associations, the National Center for Asphalt
24 Technology and the unions and others to
25 research and implement warm mix technology in

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the U.S.

Why? Because we believe that asphalt fume and its composition is driven by temperature. Our vision: No fume equals no worker exposure.

This is perhaps the largest single challenge this group has undertaken.

What insights do we offer for taking research to practice? It is possible. It is possible to bring research into practice through effective partnerships between government, labor, industry and academia. The power of the concept involves an unwavering commitment to a set of core principles and values.

Facilitation knowledge and skills are important. For that I would like to introduce Don Elisburg, a long-time friend and I would say the key to the success of these efforts. Thank you very much as you approach your agenda for the 21st century.

MR. ELISBURG: Thanks, Gary. I just wanted to add a couple of notes to the process, but the -- I must say that one of the things that -- having been engaged in this activity now for about -- since the 1970 Act through the spring of '70, I always think about how NIOSH came to

1 be. And as I listened to Sid Soderholm's
2 description and the charts and the detail of
3 how you're going to the NORA process, I got to
4 tell you that NIOSH was created in far less
5 time than Sid took to explain the process.
6 Believe me, and I was there when we wrote it.
7 It was one afternoon at a very interesting
8 lunch.

9 But having said that, the other point that I
10 want to make from my -- actually from listening
11 and my perception of the last NORA, and perhaps
12 having Dr. Howard as a captive audience and
13 perhaps take these as my remarks, not
14 necessarily NAPA's, but I think you have to
15 look at what you're trying to do here with this
16 NORA and not have the process become so
17 ponderous that you can't get it done. I'm a
18 firm believer in the KISS theory of making some
19 of these things operate, which is, you know,
20 Keep It Simple, Stupid. And I think that there
21 is a value in this NORA program, but I think
22 that also in the effort to include everybody in
23 everything in every possible thing, you can
24 sometimes get lost in the process. And I think
25 it's important to keep your eye on what it is

1 to make it happen.

2 And that was really what we did in connection
3 with this Asphalt Partnership that Gary's been
4 talking about, which is that we -- we had some
5 views and there was some interest in getting
6 some specific results. Some specific things to
7 happen originally was to do with the
8 engineering controls, and the focus was on what
9 do we need to do to get these engineering
10 controls in place now. Not in the process of a
11 regulatory scheme in 15 years, what do we do
12 now. And each of these items that we've been
13 talking about -- and I think our colleague
14 Travis from the Laborers will be talking about
15 them, too -- when you begin to get to highway
16 work zones, what could we do now. What is it
17 that gives you a result that is not so far down
18 the road that it becomes an abstract
19 proposition. And I think that was the
20 important part of what we learned in trying to
21 put together the process.

22 On the positive side for NIOSH, what we also
23 found was that the NIOSH folks have been
24 involved in this partnership with our people
25 and various groups have been extraordinarily --

1 extraordinarily good in being willing to listen
2 to what the -- what the industry, what the
3 academic people, what the union folks,
4 everybody had to say, because many of them came
5 into this process with their little piece of
6 the research that was assigned to their little
7 unit, and they couldn't -- you know, and they
8 had those blinders on and I think taking the
9 blinders off has been very, very helpful both
10 to us and to the partnership process. And I
11 think it was the ability to have everyone
12 together was -- was what made this thing an
13 important success. As a matter of fact, Dr.
14 Howard's predecessor, Dr. Linda Rosenstock,
15 commented in the course of accepting one of the
16 -- we were finalists I guess in the Innovations
17 in Government awards one year for -- is it Ford
18 Foundation, et cetera -- made the point that
19 this was one of these cases where you had to
20 make sure that you were -- you were dealing --
21 in the effort to get to perfect that you didn't
22 keep the good from happening. And she thought
23 this was one example of how you were able to
24 get an important result in the process of
25 understanding where you had to go with

1 ultimately having something happen.

2 So with that, I will -- those were the only
3 comments I wanted to make was that this was --
4 this was an example. We want to keep pointing
5 out these partnerships and why this has been
6 successful. As you saw, the whole range, from
7 going from fumes to going from warm mix is an
8 important part of what we see as the success of
9 this research to practice notion of NORA.

10 Thank you.

11 **DR. BORRE:** Please state your name and who you
12 represent.

13 **MR. THOMPSON:** Good morning. My name is
14 Michael Thompson. I'm a safety -- certified
15 safety professional in comprehensive practice
16 and I work for BP America as the health,
17 safety, security, environment training advisor
18 located in Houston, Texas. I am, however, here
19 today in my capacity as the senior vice
20 president for the American Society of Safety
21 Engineers and a member of the Board of
22 Directors representing ASSE's 30,000-member
23 safety, health and environmental professionals.
24 I'd like to say to Dr. Howard and Max Lum and
25 Sid Soderholm, thank you and commend you and

1 NIOSH for your leadership and allowing this
2 type of town hall to take place over the last
3 three months, and I very much appreciate that
4 on behalf of the 30,000 members of the American
5 Society of Safety Engineers. Those involved in
6 NORA for this proactive and unprecedented
7 approach in advancing the safety and health
8 research our members rely on every day to do
9 their work is very much appreciated. We know
10 that without an aggressive safety and health
11 research agenda, designed for the future, our
12 responsibility for managing workplace safety
13 and health risks will become increasingly
14 difficult.

15 Today is the third time that ASSE has testified
16 at these town meetings, and we are hearing
17 reports that members of ASSE have been sharing
18 their ideas in each of the town meetings across
19 the country, talking about how more research is
20 needed to provide a better understanding of
21 behavior-based safety, to the need for better
22 anthropometric data for use in designing tools,
23 equipment and workplaces, to the need for
24 better stability calculations for small boats.
25 The time and effort our members have given to

1 this process comes as no surprise to me, given
2 the commitment to safety and health and the
3 expertise and experience in virtually every
4 industry that I've long-ago learned was the
5 hallmark of the SH&E profession.
6 Today I'd like to talk to you just briefly
7 about several issues uniquely important to our
8 members. First, professionalism in safety,
9 health and environment profession and practice.
10 One area of occupational safety and health
11 research that ASSE believes has been wholly
12 overlooked is the role the SH&E profession
13 plays in advancing safety and health. However
14 much NIOSH-led research may help in addressing
15 specific risks, if employers do not have
16 properly-trained and assigned SH&E
17 professionals in the workplace, perhaps the
18 most important component of achieving safe,
19 healthier workplaces will have been missed.
20 The time has come to advance research that will
21 give the safety and health community and
22 employers a better understanding of the
23 professional preparation and accreditation
24 needed for an SH&E professional to function
25 appropriately as managers of workplace risks.

1 A key to this inquiry may be to help define
2 SH&E practice at various levels. This could
3 begin with job analysis research to help define
4 functions, tasks, knowledge and skills of the
5 SH&E professional by level of expertise and
6 responsibility. Quality SH&E professional
7 certification organizations like BCSP, ABIH and
8 IHMN already undertake this kind of analysis in
9 order to meet stringent accreditation
10 requirements. ASSE urges NIOSH to work with
11 these organizations to develop a comprehensive
12 understanding of tasks and capabilities
13 throughout the industries.
14 Such research then can provide a basis to help
15 examine other professional issues such as
16 appropriate levels of SH&E education and
17 training, the extent to which SH&E professional
18 segments have converged across traditional job
19 roles, and the role of technology on SH&E
20 practice.
21 Also, like many industries, SH&E is facing
22 growing concern over the graying of
23 practitioners and declining numbers in some
24 segments of the profession. A better
25 understanding of the availability and

1 distribution of SH&E professionals will help
2 industries better plan for future needs.
3 Most important is a need for better
4 understanding of the impact that SH&E
5 professionalism has on health and safety
6 performance. Employers especially deserve
7 better information to understand fully the
8 impact of their decisions on who has
9 responsibility for SH&E management in a
10 workplace.

11 A related issue is the need to help future
12 academic leadership in safety. Only one Ph.D.
13 program in safety exists today. If the safety
14 profession is to continue to advance and meet
15 the challenges of the future, finding ways to
16 encourage more individuals to achieve the
17 highest level of safety education will be
18 necessary. Research to help determine how to
19 achieve that is needed.

20 The second issue I'd like to speak about is
21 involving the standards community. Following -
22 - ASSE, following the lead of its ASSE
23 Foundation's Research Committee, we urge NIOSH
24 and NORA's agenda to better involve the
25 standards development community in research

1 efforts. Cooperation and involvement in the
2 national consensus standards process will help
3 ensure that NORA applied research findings
4 become operational in the field. ASSE's more
5 detailed comments which will be submitted for
6 the record give specific -- a variety of ideas
7 on how to achieve such an effort, including
8 appointing standards committee officers to
9 serve as co-chairs of the sector councils, and
10 securing representation on the affected
11 standards committees as active participants in
12 liaison non-voting capacities. Voluntary
13 consensus standards play an increasingly
14 determinant role in company safety decisions,
15 which safety and health research cannot
16 overlook.

17 Finally my third comment, safety and health
18 management, ASSE and the ASSE Foundation
19 Research Committee are concerned that not
20 enough research is being conducted to examine
21 the importance of broad safety and health
22 management in the corporate and -- structures
23 of organizations. Our members in many
24 companies believe that effective safety and
25 health management programs reduce injuries and

1 illnesses and fatalities. Only NIOSH's
2 leadership can bring forth definitive data-
3 driven studies.

4 In conclusion let me say that ASSE commends
5 NIOSH and those who have made the NORA series
6 of town hall meetings today. ASSE's Research
7 Foundation Committees and others look forward
8 to working with NORA and NIOSH as they advance
9 research to practice, and I very much
10 appreciate the time and opportunities. Thank
11 you.

12 **DR. BORRE:** Jennifer Schumann -- you can see
13 the timekeeper down here? Okay.

14 **MS. SCHUMANN:** I see her. My name is Jenny
15 Schumann and I represent the Coalition for Safe
16 Community Needle Disposal. We're a non-profit
17 organization dedicated to change the way people
18 dispose of their used needles at home, so this
19 is out of the traditional healthcare setting.
20 On the behalf of the Coalition, we are
21 requesting that NORA consider conducting a
22 study to determine the rate of needle sticks in
23 the environmental services industry, which
24 includes waste workers, professional
25 housekeepers, janitors and sewage treatment

1 cent-- workers. This study could also include
2 other non-health industries, as well. I know
3 that partnership is a big part of NORA and
4 NIOSH, and the Coalition is already a
5 partnership. We were formed a few years ago --
6 two or three years ago by the CDC. It was the
7 brain child of the CDC and we have worked with
8 OSHA, EPA, we're currently working with CMS --
9 those are some of the government agencies. We
10 also have representation from the healthcare
11 associations like American Medical Association,
12 American Diabetes Association -- I could go on
13 and on with all of those -- and we're
14 represented by the -- by the trash -- or the --
15 trash, the waste industry, and we're
16 represented by the other government agencies
17 like the U.S. Conference of Mayors and National
18 Association of City and County Health
19 Officials.

20 Anyway, current estimates show that between
21 eight and million (sic) Americans are injecting
22 in their home, generating between two and three
23 billion needles annually. Two-thirds of these
24 people are injecting for medicinal purposes,
25 ranging from arthritis to HIV to hepatitis to

1 diabetes. The remaining one-third we believe
2 to be illicit drug users, so that's two-thirds
3 of the population that we can actually get our
4 hands around. The other third we're working
5 now on those with syringe exchange programs.
6 Unfortunately, the most common method of
7 disposal for the household needle is the trash,
8 a place that is becoming increasingly dangerous
9 to environmental services workers, as well as
10 the general public. Due to the nature of
11 collection, waste collection waste workers are
12 at risk for abrasions, cuts, small puncture
13 wounds, wounds and industries on the -- or
14 injuries on the job. Because of the speed and
15 physical activity of their job, many waste
16 workers don't even know if they've been stuck
17 by a needle. Therefore, the number of needle
18 sticks in the waste injury (sic) reports on the
19 OSHA 300 log is potentially under-reported and
20 an appropriate estimation would be difficult to
21 make. And that's what we're often forced to is
22 try to make an estimation of the number of
23 needle sticks in the industry, and it's
24 virtually impossible.
25 The hospitality industry, which includes

1 professional housekeepers or janitors -- those
2 that clean hotels and motels, businesses,
3 casinos, arenas, airports, restaurants -- often
4 run across loose needles thrown directly into
5 the garbage. We are especially concerned about
6 these fresher needles for this -- for this
7 group, and the potential for infectious disease
8 carried on the needles and the high risk of
9 transmission for housekeepers if accidentally
10 stuck. Some hotel chains are starting to offer
11 discreetly sharps containers for their -- for
12 their guests, but those are often not used, as
13 well, so the whole idea is to get them out of
14 the waste stream and allow them not to be
15 thrown directly in the garbage.

16 And finally, the sewage treatment facilities
17 are still seeing a fair amount of needles being
18 flushed down the toilet. These needles, like
19 the waste industry, have to be hand-picked out
20 of the whole process.

21 The problem of needle sticks injuries in
22 household trash will continue to increase as
23 our healthcare system continues to push medical
24 treatment out of the hospital and back into the
25 home. Four self-injecting drugs were

1 introduced in the past two years for relatively
2 common illnesses such as osteoporosis,
3 arthritis, psoriasis and HIV, so people are
4 injecting for HIV -- and again, hepatitis B and
5 C -- at home and throwing those needles in the
6 garbage.

7 We're sending a very unsettling message to
8 environmental services workers and others by
9 not requiring safer disposal laws for home
10 injectors. The nation attempts to protect our
11 environment from dangerous chemicals, oils,
12 paints, et cetera, that -- with the household
13 hazards waste program, but does allow --
14 continue to allow needles directly in the
15 garbage.

16 Government agencies are beginning to treat the
17 -- see the threat of these in the trash. The
18 EPA wrote its recom-- rewrote its
19 recommendations on safe needle disposal in the
20 home in December 2004, so it does no longer
21 suggest throwing needles in the garbage. A
22 bill is currently -- currently in the House to
23 provide needle disposal coverage under Part D
24 of Medicare. And again, like I said, the CDC
25 was very instrumental in forming the Coalition.

1 Okay, how about Travis Parsons. And if you
2 have written comments, please remember to leave
3 them.

4 **MS. NOWELL:** My name is Jackie Nowell. I work
5 for the United Food and Commercial Workers
6 Union. The UFCW represents retail grocery
7 store workers, meat packing and poultry
8 workers, and many other workers in both
9 manufacturing and service.

10 I wanted to talk specifically today about meat
11 packing and poultry, and three big issues in
12 those industries.

13 But may I just put in a plug for the retail
14 grocery store folks, musculoskeletal disorders
15 remain the primary injury that is suffered by
16 these workers, especially in grocery.

17 The three issues are safety, line speed and
18 immigrant workers. Meat packing and poultry
19 remain some of the most hazardous industries in
20 the U.S. The injuries include amputations,
21 sprains and strains, lacerations, hearing loss;
22 slips, trips and falls; chemical exposures, and
23 MSDs -- musculoskeletal disorders -- again
24 remain the number one injury suffered in those
25 industries.

1 A brief history, this industry was targeted by
2 OSHA back in the mid-'80s right up into the
3 early '90s. A tremendous amount has been done
4 in the industry on this issue of MSDs -- new
5 equipment, new design of the lines -- really
6 revolutionary, some of the design -- replacing
7 workers with equipment that's drastically
8 helped this. However, again, they still remain
9 number one and so the issue of line speed,
10 which I'll talk about in a minute, we believe
11 comes into that.

12 The injuries are caused by dangerous equipment.
13 They're dealing with live animals, very sharp
14 knives and machinery, slippery floors from fat,
15 grease, water, and a numbing pace of work and
16 line speed.

17 When I go out and talk to stewards, the folks
18 in the workplace that are responsible for all
19 sorts of things including maintenance of the
20 contract, but also safety, they will tell me
21 that the number one hazard in these plants
22 today is line speed. There have been two
23 report-- in 2005 there were two reports, one by
24 the GAO and one by Human Rights Watch. Both of
25 those, independently, came up with line speed

1 as a huge issue that needed research, and they
2 actually recommended that NIOSH do that
3 research.

4 Another part of this industry are the cleaning
5 crews that go in at night. These fall right
6 through the cracks in terms of statistics
7 because they're not working for a meat company;
8 they're working for a cleaning company, and
9 that's a really bad SIC industry code because
10 it includes cleaning, you know, an office
11 building. So try to compare cleaning with 180
12 degree water at a very fast pace because you've
13 got to have that plant clean by morning to have
14 the animals be coming in to be slaughtered.
15 Many of these workers are immigrant workers.
16 Most of them, as a matter of fact, we're
17 finding out. They're not covered by unions.
18 They're almost -- virtually impossible to
19 organize.

20 The GAO report in addition found that there's a
21 standard sitting at OSHA around payment for
22 personal protective equipment that impacts
23 these workers -- low-wage workers and immigrant
24 workers -- disproportionately, that in more
25 sophisticated injuries personal protective

1 equipment is paid for, but you don't find that
2 in these kind of -- well, not -- not as -- that
3 meat packing is underground, but sort of the --
4 what is that called, the -- the sector that's
5 sort of -- oh, shoot, what is that -- what is
6 the word that I'm looking for?

7 **UNIDENTIFIED:** (Off microphone)
8 (Unintelligible)

9 **MS. NOWELL:** Yeah, something like that --
10 informal, there it is -- informal sector. The
11 third point being -- and they also found under-
12 reporting of injuries.
13 My third point, immigrant workers, they are the
14 majority in most of these plants, many of these
15 plants, especially the large ones. Both of the
16 reports found exploitation of these workers
17 because of their lack of English, because of
18 their lack of knowledge of U.S. laws, and
19 because of their perhaps lack of legal
20 documents. They found discrimination of these
21 workers. So my -- our recommendations are
22 that NIOSH do research on line speed. I know
23 that they're looking into that now, and -- and
24 the contribution that it's having to injuries,
25 and that there be a special emphasis on

1 immigrant workers.

2 In terms of partnership, you have to have a
3 willing industry to partner with, so I give you
4 my blessing for finding that. Thanks.

5 **MR. TURNER:** Where do I look for the heavy?
6 Good morning, I'm Seth Turner. I'm the senior
7 director of public policy for the Association
8 for Career and Technical Education. ACTE is
9 the voice for roughly 30,000 CTE teachers,
10 school administrators, guidance counselors and
11 school principals across the country. ACTE and
12 NIOSH have -- have a shared concern about young
13 workers, and have participated in many ways for
14 many years to improve occupational safety and
15 health for young student workers. We look
16 forward to our continued partnership for years
17 to come.

18 The occupational industry's problem for young
19 student workers in the United States is a very
20 serious problem. The 2003 NIOSH alert
21 publication indicated that 70 to 80 percent of
22 teens have worked during their high school
23 years, and the Bureau of Labor Statistics
24 reported in 2000 that 2.9 million students
25 between the ages of 15 and 17 worked during the

1 school year, and 4 million students in the same
2 age bracket worked during the summer. U.S.
3 students work at service jobs such as cashiers,
4 gas station attendants, cosmetology assistants
5 and entertainment and recreation industry,
6 health services, in restaurants, in retail
7 stores, grocery stores, manufacturing,
8 agriculture and in construction. The problems
9 we face with young workers are lack of
10 awareness, experience, training and risk-taking
11 behavior which often results in industries --
12 I'm sorry, in injuries.

13 NIOSH estimates that each year in the U.S.
14 240,000 adolescent workers suffer work-related
15 injuries; 77 require treatment in hospital
16 emergency rooms, and unfortunately 70 student
17 workers each year because of their work-related
18 injuries. That's one occupational death every
19 five days. In addition, an additional 100
20 teenagers die while working on farms every
21 year. The direct and indirect costs of these
22 injuries amounts to approximately \$5 billion
23 annually.

24 To address these issues and reduce occupational
25 injuries, NIOSH has been involved in

1 occupational safety and health for years and
2 has disseminated safety and health information
3 to reduce the injuries of young workers.
4 I'd just like to summarize some ways that NIOSH
5 and ACTE have collaborated over the years to
6 address this problem. For years NIOSH and ACTE
7 have worked to raise the awareness of
8 occupational safety and health in schools, to
9 promote a safe and healthy workplace, and to
10 reduce injuries. NIOSH and ACTE cosponsored
11 seven times in the last nine years the National
12 Safety Competition and award for educators in
13 career and technical schools. For safety --
14 the safety competition has been advertised in
15 ACTE's technique magazine and on its web site,
16 and NIOSH has promoted the competition on its
17 web site over the last few years.
18 Additionally, NIOSH has been presenting the
19 safety award to the winning teacher at ACTE's
20 national policy seminar's power breakfast in
21 Washington, D.C. This year for the first time
22 NIOSH also sponsored an exhibit booth at the
23 national policy seminar. For the last ten
24 years NIOSH has been invited to bring a NIOSH
25 safety update during a one-hour session during

1 ACTE's annual convention, and for several years
2 NIOSH has participated at ACTE's annual
3 convention with an exhibit booth -- with an
4 exhibit booth that disseminated publications.
5 ACTE has also helped during that event by
6 selling NIOSH publications at its bookstore.
7 Some things that we can do to continue the
8 partnership. ACTE has a trusted educational
9 network of community-based training programs
10 conducted and recognized educational
11 institutions which place their students in
12 predominantly local, small to medium-sized
13 business enterprises. This trusted source of
14 training and education is an ideal environment
15 for better characterizing the need for safety
16 training, and could serve as an important link
17 in outreach to the small business community.
18 Young workers are at risk if not properly
19 trained. ACTE could provide an important
20 partner in developing realistic curricula and
21 case studies and assisting and evaluating the
22 effectiveness of outreach in training
23 activities. It could serve as an important
24 community-based resource.
25 Lastly ACTE hopes to work with NIOSH to

1 rejuvenate and expand the teacher safety awards
2 as a model for other educational organizations
3 and institutions.

4 I'd like to take this final opportunity to
5 thank NIOSH for inviting me to make these brief
6 remarks today. Further, I'd like to commend it
7 for its longstanding commitment to the health
8 and safety of young student workers. ACTE
9 appreciates your dedication and welcomes our
10 continued partnerships for years to come.
11 Thank you.

12 **DR. BORRE:** Julia Storm.

13 **MS. STORM:** Good morning. I'm Julia Storm.
14 I'm a cooperative extension specialist at North
15 Carolina State University, and I'm responsible
16 for agricultural health and safety, education
17 and outreach.

18 I'd like to make some recommendations for the
19 agricultural sector. First, I think we need to
20 better characterize what health and safety
21 practices are being practiced currently in
22 agriculture. What are the barriers to those
23 that are not being practiced, and what could be
24 some economic or other incentives for adopting
25 and sustaining good health and safety practices

1 in agriculture.

2 Secondly -- and just for an example, we have
3 some information coming out of the agricultural
4 health study about this. We know that in North
5 Carolina among farmer pesticide applicators the
6 use of chemically-resistant gloves doubled in
7 the ten years between the mid-1980s and the
8 mid-1990s. So it would be good if we had those
9 kinds of measures for all kinds of -- the whole
10 -- the whole gamut of health and safety
11 practices.

12 Secondly, I think that NIOSH should continue to
13 capitalize and further capitalize on the
14 opportunity to collaborate with the
15 agricultural health study. This is a large
16 ongoing comprehensive long-term health study of
17 farmers and farm families in North Carolina and
18 Iowa. I know there's currently some
19 collaborative research going on there, but I
20 think that's a great opportunity that should be
21 followed up on, particularly with research that
22 bridges toxicology and epidemiology to further
23 characterize the chronic health issues that are
24 associated with pesticide exposure. This would
25 help in identifying susceptible populations and

1 those gene/environment interactions that may be
2 going on with chronic health issues associated
3 with pesticide exposure.

4 Thirdly, I think that we need to better
5 characterize and learn more about the actual
6 pesticide exposure of farm workers in a variety
7 of field situations. I know there's been some
8 great work in the northwest in agriculture in
9 identifying what is going on with pesticide
10 exposure in field work, and also, along with
11 that, identifying practical interventions that
12 will reduce exposure where needed and protect
13 workers.

14 Fourth, I think that there's some recent
15 initiatives that have taken place to -- as
16 consensus and stakeholder processes in the
17 agricultural sector that should inform the
18 NORA, and I've brought two of them here.
19 They're published in 2003. One is the National
20 Land Grant Research and Extension Agenda for
21 Agricultural Safety and Health. That was
22 prepared by a committee on agricultural safety
23 and health research and extension. And also a
24 very thorough consensus process also documented
25 in 2003 by -- edited by Petrie using history

1 and accomplishments to plan for the future, a
2 summary of 15 years in agricultural safety and
3 health and action steps for future directions.
4 This is -- a tremendous amount of input went
5 into this particular document and I think NORA
6 could do well by -- by utilizing that
7 information.
8 Finally, I think it would be really helpful for
9 NORA to be in a format similar to the healthy -
10 - or at least an aspect of NORA be in the
11 format of the Healthy People 2010 goals and
12 objectives for each industry sector. We need
13 to establish targets that we like to meet, to
14 measure our progress, and then ongoingly (sic)
15 identify the research, intervention and
16 outreach and education gaps.
17 Since I have one more minute I'm going to throw
18 in a sixth recommendation. The other would be
19 to do some more study in factors affecting the
20 access to and benefits of preventive
21 occupational health and safety services for
22 agriculture, as well as emergency services for
23 farmers and farm workers.
24 Thank you very much for the opportunity to
25 comment.

1 **DR. BORRE:** Travis Parsons?

2 **MR. PARSONS:** Good morning, and how is
3 everybody out there this morning? My name is
4 Travis Parsons. I represent the Laborers
5 Health and Safety Fund. I am the senior safety
6 and health specialist for the Fund. We
7 represent Laborers International Union, over
8 800,000 workers all over North America. We do
9 health and safety services for them.
10 Everything -- we're predominantly construction
11 workers, which is your heavy highway workers,
12 your building construction, about 600,000 of
13 our membership is construction work. We also
14 represent public employees, which represents
15 another 200,000 or so, and that is everything
16 under the sun, so you know, again, through
17 other construction workers to janitors to
18 maintenance workers to everything. So that's
19 what we represent.
20 At our annual conference we had about -- I
21 guess it was about three weeks ago, we had a
22 very similar thing to this -- this workshop
23 right here. We actually had a round table
24 discussion with NIOSH's assistance at the
25 conference, and what I'm going to do today is

1 just summarize the things that came out of that
2 meeting, with a couple of other things, so --
3 try to be brief. I could go on forever, but...
4 One of the big -- two-est (sic) big things that
5 came out that we think there needs to be
6 research in is more research in demolition
7 industry when it comes down from
8 (unintelligible) -- there's not a whole lot of
9 stuff out there when it comes to demolition and
10 it's a very dangerous work, very dangerous
11 work. There's going to be more of it in the
12 metropolitan areas coming up.
13 Also night work on the highways
14 (unintelligible). Night work is increasing,
15 especially in the metropolitan areas, and we
16 need more research in that. Is it more
17 dangerous? Of course, we think it inherently
18 is because it's at night and the drivers at
19 night are sometimes more dangerous but really
20 is it and why are we doing night work? What
21 research needs to be done?
22 And that alludes to work zones in general. Our
23 workers are always concerned about working on
24 the work zones and a lot of our workers work on
25 the work zones and that alludes to also, which

1 was discussed earlier -- earlier by Don and
2 Gary about the partnerships with NIOSH's
3 assistance and OSHA's assistance. Partnerships
4 are very, very important and we definitely need
5 to continue those and build on the successes
6 that we've had. They spoke very eloquently
7 earlier about the highway work zone lines so
8 I'm not going to talk about that. We don't
9 need to reiterate what they said, but we just
10 need to continue those efforts.

11 Other areas of research that we see a need for
12 is Hispanic and other non-English-speaking
13 workers. It's increasing in our country, as we
14 know, especially in the Hispanic population,
15 especially in major cities. What differences
16 do they have? Do they understand the rights?
17 Do they have health and safety rights? Do they
18 know that? What differences do they have in
19 the workforce? Do -- are -- is that a concern
20 to them? How do we get through to them?

21 That's a big, big problem within our
22 organization so it's -- Hispanic is the main
23 one, and other non-English-speaking.

24 Let's talk a little bit about training --
25 training in general. Health and safe-- there's

1 a whole lot of health and safety training out
2 there now as -- that exists. But what really
3 works? How do we impact our workers and how do
4 we impact our workforce? Does the existing
5 training really work? So I think there needs
6 to be some research on the evaluation of
7 current training methods, especially for adult
8 learning. You know, adult -- the attention
9 span for an adult is about an hour, I think, so
10 after -- you know, what training are we doing
11 and does it currently work and what can we do
12 as far as new training.

13 And then there's some oldies but goodies.
14 Noise is always a concern, silica,
15 musculoskeletal disorders, falls -- the number
16 one killer out there on our buildings and in
17 all this trenching excavation. I think every
18 time I pick up the paper somebody's died in a
19 trench accidents, so that's also another
20 important area of research.

21 And then to -- I'm going to be quick so -- to
22 finalize things, in the end, does safety pay?
23 And in this room -- everybody in this room, we
24 all believe safety pays. How can we prove to
25 our contractors, how can we prove to our

1 owners, how can we prove to our workers that
2 safety pays? So research to prove how safety
3 pays, how does it affect the bottom line? How
4 does it decrease your worker comp fees? Is
5 there incentives to having a safe workforce?
6 And I have one minute left, so I actually
7 finished early, so thank you for your time and
8 I will answer any questions afterwards.

9 **DR. BORRE:** Because you do have one minute
10 left, does anyone have a question -- a quick
11 question?

12 (No responses)

13 Okay. If the group would like to have a little
14 break right now, you could take five minutes.
15 We have two speakers who did not speak from
16 this first section and they will be given the
17 section next time. There are restrooms right
18 outside the door, and you're welcome to take a
19 break out in the hall around these doors. Be
20 back in (inaudible).

21 (Whereupon, a recess was taken from 10:30 a.m.
22 to 10:40 a.m.)

23 **DR. BORRE:** I'd like to call David Covarrubias.
24 Is David here?

25 (No responses)

1 Michael Rybolt? Anna Gilmore Hall and Shelly
2 Heath-Watson.

3 **UNIDENTIFIED:** (Off microphone)
4 (Unintelligible) timekeeper (unintelligible).

5 **DR. BORRE:** Okay. I'm going to wait a second
6 for our timekeeper to return.

7 **UNIDENTIFIED:** (Off microphone) We can start
8 (unintelligible).

9 **DR. BORRE:** Okay, can we ring it?

10 **UNIDENTIFIED:** (Off microphone)
11 (Unintelligible)

12 **DR. BORRE:** Okay. Shelly Heath-Watson? You
13 want to -- you're -- okay. Michael Rybolt and
14 Shelly Heath-Watson, Anna Gilmore Hall -- is
15 Anna here?

16 **UNIDENTIFIED:** (Off microphone)
17 (Unintelligible)

18 **DR. BORRE:** Okay. Daniel Droblich? Sylvia
19 Johnson? Brad Boler (ph.) -- if I've
20 mispronounced your name, please correct me.

21 **MR. BOEHLER:** (Off microphone) Beeler (ph.).

22 **DR. BORRE:** Boehler, Brad Boehler. Michael.

23 **MR. RYBOLT:** Good morning. My name is Michael
24 Rybolt. I'm the scientific and regulatory
25 affairs manager for the National Turkey

1 Federation. I'm here today representing the
2 poultry industry Worker Safety and Health
3 Committee, which is a joint committee between
4 the National Chicken Council and the National
5 Turkey Federation. The committee -- National
6 Turkey Federation represents 99 percent of the
7 turkey industry, and I believe the National
8 Chicken Council represents about 96 percent of
9 the broiler industry. Our joint Worker Safety
10 and Health Committee includes representatives
11 from each one of the companies. They're
12 responsible for worker safety and health. Some
13 are HR people, as well.

14 During our recent annual convention we had our
15 joint meeting down in Orlando, and the joint
16 committee decided to provide some research
17 priorities to NORA. The poultry industry
18 Worker Safety and Health Committee requests
19 that NIOSH adopt the following three resear--
20 or the following priorities for the national
21 research agenda. I was asked to present only
22 on one issue, which you see on your agenda is
23 chloramines. This same presentation was given
24 at the town hall meeting in Ohio recently. The
25 committee asked me to discuss chloramines with

1 you today.

2 During the annual convention back in February

3 of this year approximately 50 percent of the

4 companies attending reported that they had

5 experienced a chloramine issue. Given the high

6 percentage, it is likely that others in

7 attendance have also experienced employee

8 complaints about chloramine exposure, but have

9 failed to segregate it -- the specifics of the

10 exposure from the traditional chlorine usage.

11 Chloramines naturally result when chlorine --

12 chlorinated water, which is commonly used in

13 the meat industry -- poultry industry, too --

14 to sanitize our products and equipments. The

15 chlorine in the water becomes impregnated with

16 ammonia. The source of ammonia can either be

17 from the biological debris that comes in on the

18 products, or it can -- unfortunately, sometimes

19 we have ammonia leaks that may drip into our

20 chlorinated water supply, and then you have the

21 chloramine formed. Ammonia has a great

22 affinity for water and will therefore typically

23 stay in solution. However, when it does

24 combine, it -- when it is introduced into

25 chlorinated water, they will combine and it

1 will gas off.

2 The research priorities that were identified

3 were that we do not currently have the physical

4 means to measure chlo-- chloramine levels in

5 the air. When we suspect exposures of chlor--

6 expect exposures when employees report

7 significant irritation, yet when we go out in

8 the plant and monitor for our chlorine and our

9 ammonia levels, our indicators are -- there's

10 no issue or there's no significant levels.

11 Permissible exposure levels, threshold limit

12 values, et cetera, have not been defined so we

13 don't know what, if any, level is injurious to

14 the employees. And also that the degree of the

15 problem within the industry is not understood.

16 And that's what the Committee -- our chairman

17 asked me to come and present to you today. I

18 would like to note that the -- the Joint

19 Committee had recently, in January of '05,

20 signed into a OSHA alliance, similar to some of

21 the other industries out there. I did want to

22 highlight that and to also mention the chlorine

23 issue within the industry.

24 Told you I wouldn't take five minutes. Thank

25 you.

1 **DR. BORRE:** Thank you very much. We have
2 Shelly Heath-Watson.

3 **MS. HEATH-WATSON:** Good morning. My name is
4 Shelly Heath-Watson and I work with ORC
5 (unintelligible) International and I am
6 representing the National Eye Institute this
7 morning, and I have the pleasure of speaking
8 with you about Healthy Vision Month in the
9 partnership that we have with NIOSH for Healthy
10 Vision Month. Healthy Vision Month occurs each
11 May. This will be our fourth observance for
12 the National Eye Institute and the national eye
13 health education program. And what the -- what
14 Healthy Vision Month tries to do is each --
15 each year it focuses on a different one of the
16 ten vision objectives in Healthy People 2010,
17 and tries to take what we know the research is
18 telling us about the various eye conditions and
19 eye disease and translate those into community
20 outreach efforts, public health campaign
21 messages and programs.
22 And this coming May, May 2006, our focus is on
23 reducing occupational eye injury, and that's a
24 completely new area for the National Eye
25 Institute. NEI had not done any work in that

1 area previously for its education programs, and
2 so it reached out to NIOSH to partner and they
3 jumped on board willingly and wholeheartedly.
4 And because of NIOSH's participation and
5 collaboration with us, we're very excited about
6 the kinds of things that we've come up with for
7 Healthy Vision Month 2006.

8 NIOSH came on as a cosponsor of the month. In
9 so doing, it helped to form the direction of
10 our campaign for this year, including the tag
11 line in the slogan and the materials that were
12 created and the content of those materials. So
13 by virtue of this relationship, NIOSH has added
14 credibility as far as being the expert in this
15 area, and has extended the reach of Healthy
16 Vision Month because not only do we have NEI's
17 dissemination networks, we also have access to
18 NIOSH's. And as far as making our voice
19 louder, because we're saying the same thing and
20 we're sharing the same messages, our tag line
21 or our theme for this year -- as I said, for
22 May -- is "Eye Safety at Work is Everyone's
23 Business. Prevent Injury. Use Protective
24 Eyewear."

25 About 2,000 workers are injured each year --

1 excuse me, each day. We see eye injuries that
2 require some kind of medical treatment, and so
3 we're trying to get this word out and we're
4 trying to let employees and employers know what
5 they can do to have a safer healthy work site
6 and environment.

7 The kinds of materials and resources that we
8 developed -- and I say we, NEI, NIOSH, the
9 National Safety Council also came on as a
10 cosponsor, the American Association of
11 Occupational Health Nurses came on as
12 collaborators, and so have all had a hand in
13 the content and the direction for the Month.
14 The kinds of things we've come up with are
15 promotional work site materials, posters, event
16 posters. We've created a PowerPoint
17 presentation for use of -- by employers or can
18 be a self-guided work module for employees,
19 just to give them ideas of what can -- they can
20 do to make their work site safer, what they can
21 do to protect their vision and that of their
22 employees or their coworkers. We have magnets,
23 we've got stickers, we will be sending out a
24 monthly e-bulletin and in the e-bulletin it has
25 links to more resources, either on the NEI

1 site, the NIOSH site, the National Safety
2 Council site. And so really looking to extend
3 the reach of our collective voices, we're
4 definitely making more of an impact working
5 together than we could have done individually.
6 What else can I share with you -- the kinds of
7 materials that we've produced and why they are
8 for May, we've made them evergreen so that they
9 can be used in the work sites year 'round.
10 They're available to the public for no cost.
11 If you come to the NEI web site you can order
12 those materials. And so we're just encouraging
13 people to try and help get the word out through
14 their various -- their various sources.
15 And so special thanks to the NIOSH team that
16 worked with us. It was Max Lum's office. We
17 worked very closely with Fred Blosser and
18 Christy Bowles. Dr. Larry Jackson was
19 incredible; and from the National Safety
20 Council with Elizabeth Wilson; and Bruce Lloyd
21 from the American Association of Occupational
22 Health Nurses. There's much, much more I can
23 share with you about Healthy Vision Month. The
24 site went live -- I want to say last week. I
25 have sample materials with me. I can put them

1 out in the front if you're interested in seeing
2 them.

3 But I'd like to extend a thank you again for
4 the invitation just to share with you briefly
5 about Healthy Vision Month and all that NIOSH
6 is doing and will continue to do to make eye
7 health and safety a national priority. Thank
8 you.

9 **DR. BORRE:** Sylvia Johnson.

10 **MS. JOHNSON:** Good morning. Before I get
11 started, I'd like to apologize for a technical
12 error here on the sheet. I will actually not
13 be talking about OSHA this morning, but I will
14 be talking about the occupational research
15 health agenda for manufacturing for the next
16 decade.

17 Again, my name is Sylvia Johnson and I'm
18 working -- I represent the United Auto Workers,
19 and we represent several entities within our
20 organization. We do -- we represent workers
21 who work in the manufacturing sector. We
22 represent nurses, state employees, public
23 employees, and so we don't just represent auto
24 workers, but specifically today I will be
25 talking about manufacturing and the

1 occupational research needs for manufacturing.
2 Let me first say that on behalf of the UAW we
3 thank you for the opportunity to voice our
4 concerns and make recommendations on the future
5 of occupational health and safety research over
6 the next decade. The UAW has always supported
7 NIOSH in its efforts to protect workers against
8 hazards.

9 Having spent five of the last seven years of my
10 career working as an occupational
11 epidemiologist for the UAW, I've seen first-
12 hand the devastation some occupational hazards
13 have caused workers. On the other hand, I've
14 also seen first-hand how concerted efforts
15 between government, unions, academia and
16 corporations benefit worker safety and health
17 programs.

18 I want to speak about the priorities for
19 occupational safety and health research in the
20 manufacturing sector based on the experiences
21 of the UAW at the national and local levels.
22 Without a doubt, the UAW put our -- we've put
23 our money where our mouth is in support of
24 research. We negotiated jointly-administered
25 research funds from General Motors, Ford and

1 Chrysler starting in 1984. Millions of dollars
2 have been spent and around 100 publications
3 have come out of this research. We also
4 launched smaller efforts at International
5 Truck, NUMMI and other locations.
6 In our view, the most important goal of
7 research is identifying gaps in protections,
8 meaning situations where workers are getting
9 sick or injured under current conditions. This
10 can be because an exposure permitted by
11 standards is making people sick. As an
12 epidemiologist who frequently made visits to
13 the plant floor, I can't tell you how often
14 workers complained of their eyes burning,
15 headaches, skin irritations, and then the
16 industrial hygienist would come and do an
17 assessment and conclude that the exposures were
18 within the OSHA standard. This clearly
19 suggests that many of these standards need to
20 be lowered.
21 Health effects research, including injuries, is
22 the most important thing that NIOSH can do, and
23 is something that only NIOSH will do. Industry
24 only pays for health effects research after
25 some other investigator has found a problem and

1 industry is convinced it will make a cost go
2 away.

3 Sometimes there is a gap in protections because
4 the method of controlling exposures is not
5 known, or a more efficient method of
6 controlling exposure is needed. But this is
7 much less a priority than showing an exposure
8 is causing people to get sick or injured.
9 So here are the issues that we need NIOSH and
10 other agencies, academics and management to
11 address.

12 First, we know that workers who work in
13 machining plants, foundries and even in vehicle
14 assembly plants are still dying early from
15 cancer and respiratory diseases. We need to
16 know more about whether there are risks from
17 these chemicals at current exposure levels.
18 Second, ergonomics still cause half of all
19 injuries in our workplaces. We need to know
20 how much exposure is too much exposure.

21 Third, we've learned that severe and fatal
22 injuries are concentrated among skilled workers
23 doing maintenance and repair work. We need to
24 understand better how to measure the exposure
25 and job characteristics that cause these

1 fatalities.

2 Fourth, we need to know more about the
3 respiratory health effects of fine and ultra-
4 fine particles.

5 And finally, we need to measure work-related
6 stress, including the stress of working in pain
7 from ergonomic injuries, which we believe
8 causes high blood pressure and mental illness.

9 Again, thank you for the opportunity today.

10 The UAW looks forward to continuing our working
11 relationship with NIOSH in improving the lives
12 of America's workforce. Thank you.

13 **DR. BORRE:** Brad --

14 **MR. BOEHLER:** Boehler.

15 **DR. BORRE:** -- Boehler, Brad Boehler.

16 **MR. BOEHLER:** Thank you. Good morning, ladies
17 and gentlemen. I'm very pleased -- my name is
18 Brad Boehler and I'm very pleased to be here --
19 invited this morning to speak to you a little
20 bit about the need for further corroborative
21 research between the aerial work platform
22 industry and NIOSH. I'm the director for
23 product safety for Skyjack, a producer of
24 aerial work lifts, and probably the largest
25 manufacturer of scissor lifts in the world

1 today. As such I'm a member of various
2 standards organizations such as the ANSI
3 Committee A-92 for Aerial Platforms, the CSA B-
4 354 Elevating Work Platform Technical
5 Committee, and internationally the ISO
6 Technical Committee 214 for Elevating Work
7 Platforms. I'm also a contributing member of
8 various industry organizations such as the
9 International Powered Access Federation and the
10 Aerial Work Platform Training Organization.
11 And as a manufacturer, I guess I'm feeling a
12 little lonely here so far today, but I thought
13 I would come.

14 Studies of accident data, some of which were
15 done by Michael McCann from the Center to
16 Protect Workers Rights, indicate that aerial
17 lifts are associated with nearly four percent
18 of construction-related deaths in that time
19 period, and many more injuries. Aerial work
20 platforms are designed and produced as tools to
21 put workers and their materials at elevation in
22 order to perform tasks. Now placing people at
23 elevation, regardless of the method, is an
24 inherently dangerous task and ultimately a
25 great responsibility. I believe today that any

1 manufacturers of aerial work platforms are
2 aware of this responsibility to safeguard the
3 user, and these producers are actually pursuing
4 methods in order to ensure that the machinery
5 they create is practical and safe for use.
6 However, although this is extremely important,
7 the design and manufacture of the lifts is just
8 the first step in protecting the worker using
9 this equipment. For a worker about to be
10 placed at elevation, many other factors are
11 involved in the safe completion of their
12 assigned tasks.
13 Their lifting equipment must be the proper type
14 for job site conditions, and it must be able to
15 travel and elevate on that particular job site
16 terrain, and it also must be of sufficient
17 elevating height and load-carrying capacity for
18 the task. The equipment must be properly
19 maintained and ready for safe use, as well.
20 Unfortunately, regular maintenance is not
21 always a priority on many job sites, and in
22 fact in some cases safety devices are
23 deliberately overridden as they are deemed to
24 hinder productivity. A proper pre-use
25 inspection could eliminate many poorly-

1 maintained lifts from immediate service. And
2 finally, the operator must be properly trained.
3 I can't emphasize enough the training
4 requirement. A properly trained operator is
5 able to ensure that the equipment that they are
6 about to use is truly safe for use and in a
7 safe state of repair, that it is the
8 appropriate tool for the task that they have
9 been assigned, and that the surrounding
10 environment is indeed acceptable for safe use
11 of that lift. With complete and competent
12 training, I believe an operator will understand
13 that staying within those accepted limits will
14 help to ensure that they go home uninjured that
15 evening.

16 Skyjack and I have entered into a collaborative
17 effort with NIOSH previously. Dr. Christopher
18 Penn and his team in Morgantown, West Virginia
19 are working on a project entitled "Fall
20 Prevention for Aerial Lifts in the Construction
21 Industry" and have thus far completed physical
22 testing of a scissor lift and found that for
23 the most part -- or actually for all parts,
24 that it does exceed the requirements as set out
25 in the ANSI standards for stability. They've

1 also done human factors subject testing to
2 determine the forces that may be imparted by a
3 human being on that platform, and as well that
4 testing's preliminary data seems to indicate
5 that that is close to the 100 pounds as set out
6 in the ANSI standard as well.

7 This collaboration has been a great benefit to
8 both these -- manufacturer, myself, the
9 scientific community and the industry as a
10 whole, and I will endorse and support the
11 continuation of this initiative in any way I
12 can.

13 How can NIOSH continue to help the aerial work
14 platform industry create the safest at-height
15 work environment for workers? Well, the
16 current project needs to continue, and will be
17 used to ensure that the virtual lift -- or I'm
18 sorry -- they're going to create a computer
19 simulation to ensure that the virtual lift
20 matches their physical data that they have
21 found. They will then test that virtual lift
22 in many different scenarios to determine what
23 the limits of use may be.

24 As well, just to talk a little bit about what
25 Travis said with regards to operator training,

1 I would like to see that NIOSH could possibly
2 evaluate and -- the requirements and
3 effectiveness of operator training in the
4 future. As well there is fall protection
5 questions based on some issues in the OSHA
6 regulations that are not quite clear to all
7 professionals in the industry, and there are
8 varying -- varying opinions on what type of
9 fall protection is required. So certainly that
10 would be another research topic that could be
11 undertaken.

12 In conclusion, my personal goal is to ensure
13 the safe work of aerial work platforms. There
14 are a variety of different approaches to pursue
15 and achieve this, and I feel that one of the
16 best is having the brightest research
17 investigators various methods of mitigating
18 these hazards associated with elevating
19 personnel. Skyjack and the aerial work
20 platform industry will cooperate and
21 collaborate with NIOSH whenever possible to
22 pursue this goal. Ultimately I believe
23 education and elevation will create a safer
24 workplace for performing tasks at height using
25 aerial work platforms. Thank you for your kind

1 attention.

2 **DR. BORRE:** Thank you very much.

3 I'm going to call the next group of people, but
4 I am going to ask one more time for David
5 Covarrubias.

6 (No responses)

7 Okay. Martin Cherniak, Anna Gilmore Hall,
8 Darryl Droblich and Mary Lamielle. Mary
9 Lamielle? Anna Gilmore Hall? James Repace?
10 Steven Trippel? Mary Ann Latko.
11 We'll begin with Martin Cherniak.

12 **MR. CHERNIAK:** My name's Martin Cherniak. I'm
13 a professor of medicine at the University of
14 Connecticut Health Center and I'll be talking
15 principally from the point of view of an
16 academic investigator, which is mostly what I
17 do.
18 You know, I started out at NIOSH 25 years ago.
19 Marilyn remembers 'cause we were in the same
20 BIS class in 1981. And it was simpler in those
21 days. We had -- for a variety of reasons, the
22 labor markets were stable, they were --
23 sponsorship was much more clear-cut, we had
24 stable product categories and industries, and
25 we had a couple of vehicles which were really

1 gold standards. One of them was the Cohort
2 Mortality Study, primarily geared towards
3 cancer investigation, and the second was the
4 Single Agent Classical Lab Toxicology Study,
5 and nobody's talking about those today.
6 Now that gives me one lesson, that you have to
7 be very wary when you're presenting an agenda
8 and presenting a list. You know, political
9 culture, research organizations, budgets,
10 professional training priorities, they have a
11 curious habit of upsetting lists and
12 (unintelligible) disrespectful of tradition, so
13 I'm not going to advise NIOSH on the ten things
14 it should do because they won't have any
15 meaning in five years.
16 But I do want to say -- talk about a couple of
17 things which I think are important. One of
18 them is that one of the strengths and the
19 weaknesses of this field, and particularly one
20 that NIOSH has encountered, is that in many
21 ways we deal with -- in a multi-disciplinary
22 field. It's evident in the study sections and
23 our advisory panels. People come from a
24 variety of different sectors with -- with
25 cross-lapping concerns.

1 On the other hand, much of the research
2 community is moving in a direction that's
3 cross-disciplinary, which is to say that
4 there's a great deal of detail and
5 sophistication within subsets of fields which
6 then integrate. This is a conceptual problem,
7 and it's one that NIOSH is going to have to
8 work through. And the reason that it's going
9 to have to work through is that I really do
10 believe that in this climate of very
11 restrictive budgets and limiting resources,
12 there nevertheless are many, many opportunities
13 and it really has in a lot of ways to do with
14 the -- what is a large breadth of investigative
15 talent in this country and an inadequacy of
16 investigative funds. And that's a combination
17 which, with the right expression and the right
18 conceptual platform, can actually work well to
19 the effect of the -- positive effect of the
20 institution.

21 Now I want to give a couple of examples,
22 particularly in terms of what I know are
23 priorities here, which are research to practice
24 and intervention. I basically direct something
25 called the Ergonomics Technologies Center,

1 which is largely a sound and vibration
2 laboratory with biomechanics, and we deal
3 primarily with physical hazards in this aspect
4 of our work. There are other aspects of our
5 work. If we look at the field of vibration,
6 for example, hand/arm vibration -- which was an
7 area NIOSH was involved in some years ago -- I
8 can legitimately say that the physiologic and
9 physical science understanding are sufficient
10 that this is a historical problem we can well
11 eliminate. We can eliminate it with
12 engineering and we can eliminate principally
13 with issues around design. But it's not
14 happening here, and I think we have some
15 lessons in terms of where it is happening.
16 And although it's not always popular, if we
17 turn to our European colleagues we can see the
18 way that they've dealt with this problem
19 through the European community which is on a
20 multi-national, multi-centric consortium basis
21 with very clear goals, very clear directions,
22 and a lot of attention to the organization of
23 the process and its time scales. We've done it
24 a bit here and NIOSH has with the
25 musculoskeletal disease consortium, but that's

1 only one start. And I think it requires,
2 again, a different kind of platform than what
3 we have.

4 This is also motivated by the issue of concrete
5 problems that are large-scale problems that
6 require cross-disciplinary work and -- and a
7 concentration of resources which just can't be
8 dispelled indifferently.

9 A second area I would raise is on physical
10 acoustics. A number of people have talked in
11 terms of sectors, particularly construction and
12 mining, about problems of hearing loss. Many
13 of you know there's been significant
14 development in the field of physical acoustics
15 and sound cancellation and moving away from
16 bulky headsets to earpieces, and levels of
17 integrating both the environment and personal
18 protection, which are quite different from the
19 way we've approached this in the past, and they
20 can be effective while maintaining
21 communications. Again, strong basis in
22 physical sciences.

23 But occupational health is not the field that's
24 making the contributions to these areas. We
25 see it in other research areas, but it doesn't

1 particularly cross over very well. We also see
2 other institutions that are funding that
3 research, and I have to say not always so
4 effectively, largely in the military. But
5 again, the platforms are there. They just --
6 doesn't necessarily spread in its current --
7 current milieu.

8 With that, I would say -- I know NIOSH has not
9 used extensively and NORA has not used
10 extensively the SBIR and STTR mechanism, but
11 I'm not sure they are the best mechanism for
12 much of this kind of work. This is a much
13 longer discussion -- or maybe it's a shorter
14 discussion than detailed about what might be
15 the right mechanism, but I think if we look at
16 the areas where they have not worked, what we
17 can find is in fact a very different area.
18 And finally -- I see the fist, so I want to
19 talk about one area which I must do -- I'm
20 sorry, but so many people have canceled you
21 have to give me two more minutes and -- and
22 that really is in an area that we don't do
23 particularly well in this field and that is on
24 healthcare and medical utilization. And
25 there's been a number of discussions of the

1 area but I want to mention just a few points
2 that are important.

3 If we look at what's occurring within states in
4 the insurance industry, we realize there's a
5 merger going on, at least conceptually, of what
6 would be called the workers compensation and
7 the group health products. If you remove the
8 term "products" what you can see is that
9 there's a very different way of defining the
10 field and a recognition that there is in fact a
11 continuum, particularly with many degenerative
12 diseases and the effects of disease on -- on
13 performance, function and so forth.

14 Now one of the areas where I think we have
15 failed badly is on the area of performance, and
16 I would say medical performance within work
17 sector. There's enough data to suggest that --
18 that treatments and the approaches that are
19 taken towards the working population vary by
20 sector and vary by region in ways that have
21 nothing to do with disease, or if they do it's
22 rather coincidental. Some of you are probably
23 familiar with the work coming out of Dartmouth
24 and Winbird's work on small -- local analysis
25 and regional analysis. But if we're looking

1 for huge effects in this society and huge risks
2 which are addressed in rather erratic ways,
3 healthcare utilization is one. And I'm not
4 talking necessarily about coronary artery
5 disease and processes, but I am talking about
6 joints, musculoskeletal disease and many other
7 areas where we see massive differences. And
8 simply talking about practice guidelines or
9 simply talking about a very high-risk sector is
10 not adequate because in fact we see these
11 massive differentials in the limited studies
12 that have been done, and we don't have the
13 information base. I think it's an important
14 area which ARC and other agencies would be well
15 interested in.

16 And finally as I sit down I just want to
17 comment about one area that's been particularly
18 bugging us, we do work in high frequency
19 vibration. We do a lot of work on dental
20 tools, medical instruments and so forth.
21 There's several groups around the world
22 (unintelligible) some very important and
23 potentially consequential and poten-- and
24 certainly controllable effects from high
25 frequency vibration. We've gone to the various

1 institutes, like the Dental Institute, and the
2 response we always get is that's what NIOSH
3 does.

4 Now the medical institutes will deal with --
5 with their workforces. You know, they deal
6 with the aging of the healthcare population.
7 They'll deal with the replacement of healthcare
8 population. They'll deal with the inability to
9 attract people into the -- into programs and
10 into jobs. But they don't deal with many of
11 the health problems which are intrinsic in
12 those occupations -- except perhaps for backs.
13 And I want to say simply that I think there's
14 openness to it, but they really -- it's just
15 something they just haven't conceptualized. So
16 that would be my other recommendation by
17 sector, that there are other institutes that
18 have their own germane workforces that NIOSH
19 could approach. And thank you.

20 **DR. BORRE:** Thank you, Dr. Cherniak. Darryl
21 Drobnych.

22 **MR. DROBNICH:** Good morning. My name is Darryl
23 Drobnych. I'm senior director of government
24 affairs and programs for the National Sleep
25 Foundation. Yes, there is such an entity in

1 Washington, D.C. that's called -- called as the
2 National Sleep Foundation. We're a non-profit
3 organization. We're dedicated to raising
4 awareness about sleep, sleep disorders and the
5 consequences of fatigue. Most of the -- two of
6 the most important of that being drowsy driving
7 and workplace accidents. Eighty percent of
8 what we do is public education. We also fund
9 some post-doctoral research fellows and do
10 advocacy around the issues of drowsy driving,
11 school start times for adolescents and
12 workplace education.

13 What I'd like to talk to you today about is I
14 guess a cross-cutting issue. First of all I'd
15 like to thank NORA for allowing us this
16 opportunity to add some input. But we think
17 sleep and fatigue is a cross-cutting issue and
18 that a third of us -- we spend -- or all of us
19 spend a third of our lives sleeping. And sleep
20 and the loss of sleep has a tremendous impact
21 on how we live, think and function during the
22 other two-thirds of our day. Sleepiness
23 affects vigilance, reaction times, learning
24 abilities, alertness, mood, hand-eye
25 coordination and accuracy of short-term memory,

1 all skills that we need on the job, obviously,
2 as well as in other parts of our lives.
3 According to the National Commission on Sleep
4 Disorders research, approximately 50 million
5 Americans suffer from more than 80 different
6 types of sleep disorders, and another 20 to 30
7 million suffer intermittent problems that are
8 related to pain, stress, anxiety, depression
9 and other ailments each year. Sleep-related
10 disorders affect members of every race,
11 socioeconomic class, and of all ages and
12 genders, obviously.

13 Sleep is also related to other medical
14 conditions. For example, problems like stroke
15 and asthma attacks occur more frequently during
16 the night and early morning. Lack of sleep
17 appears to trigger seizures in people with some
18 types of epilepsy. Sleep disorders occur in 75
19 to 98 percent of patients with Parkinson's
20 disease. Sleep problems such as insomnia have
21 also been closely linked to depression and
22 other psychiatric disorders. And a recent
23 study found that 69 percent of primary care
24 patients in physician waiting rooms complained
25 of occasional or chronic insomnia.

1 Overwhelmingly the majority of these people are
2 not properly diagnosed or being treated because
3 of a lack of awareness and education, not only
4 amongst primary care doctors, but other health
5 professionals as well as oc. med. doctors and
6 the patients themselves. They simply don't
7 recognize the signs and symptoms of the major
8 sleep disorders, that being insomnia, sleep
9 apnea and restless leg syndrome.

10 Beyond that, America is chronically sleep-
11 deprived because of lifestyle. Yeah, this 300
12 years of Puritan work ethic hitting now the
13 24/7 society and wreaking all kinds of havoc,
14 not only in the workplace but also on the
15 roads, or the medical wards of your local
16 hospital. More than 63 million Americans
17 suffer from minor to severe levels of
18 sleepiness.

19 According to National Sleep Foundation's "Sleep
20 in America" surveys -- and these are nationally
21 representative surveys we've been doing since
22 1998 -- the majority of Americans, almost 60
23 percent -- get less than seven hours of sleep
24 per day. Research says that we need anywhere
25 from seven to nine hours of sleep to actually

1 maintain proper alertness throughout the day.
2 The survey also showed that 32 percent of
3 Americans sleep as little as six hours or less
4 per night during the work week. In total, 64
5 percent of Americans get less than eight hours
6 of sleep that experts say that is needed to
7 maintain proper alertness and health.
8 Sleepiness as a result of untreated sleep
9 disorders or sleep deprivation has been
10 identified as a growing number -- as a cause of
11 a growing number of on-the-job incidents. At
12 least 15 million Americans have non-traditional
13 work schedules that conflict with their
14 biological clocks. According to the National
15 Sleep Foundation's 2000 national poll, 43
16 percent of adults believe that sleepiness
17 negatively affects their performance at work.
18 While shift work has plateaued (sic) over the
19 last decade, there is a rise in the number of
20 people that work other alternative shifts
21 outside of the usual 9:00 to 5:00, so you'll
22 see a lot of those people working in the
23 service sector jobs, working 12:00 to 8:00
24 shifts, and different shifts that might
25 interfere with their sleep. NIOSH has done

1 research on the effects of shift work and long
2 hours, and we encourage them to continue these
3 programs.

4 The other issue of concern that -- to us is the
5 issue of drowsy driving. Drowsy driving is a
6 very insidious public health problem. The
7 National Traffic -- National Highway Traffic
8 Administration estimates about 100,000 police-
9 reported crashes are the result of driver
10 fatigue each year. In NSF polls that we've
11 been doing over the last eight years, 50
12 percent of Americans say that they've driven
13 drowsy at least once, and one in five, or
14 almost 20 percent, say that they've actually
15 fallen asleep at the wheel. In the new poll
16 that we will be issuing in two weeks focus in
17 on adolescents. Twenty percent of 16 and 17-
18 year-olds say that they've actually fallen
19 asleep at the wheel in the past year, and a
20 large percentage of -- a good percentage of
21 them, about 11 percent, say they actually do so
22 a few times a week.

23 Really what we need at this point is better
24 data and surveillance systems to fully assess
25 how sleep deprivation and disordered sleep are

1 linked to morbidity and mortality and other
2 public health concerns. At this time sleep is
3 under-recognized in most federally-supported
4 surveillance systems, thereby limiting the
5 inclusion of sleep-related factors from
6 documents such as Health People 2010 and NORA
7 and other managed healthcare systems. Sleep
8 needs to be addressed in a more substantial way
9 to reflect the importance in human functioning
10 in order to produce a comprehensive safety --
11 health and safety agenda for the new
12 millennium. Baseline data is needed to
13 identify clear objectives and goals for
14 subsequent educational programs and
15 intervention models related to promulgating the
16 good sleep habits, the treatment of sleep
17 disorders and conveying the consequences of
18 sleep deprivation. With that, I thank you very
19 much.

20 **DR. BORRE:** Thank you. We'd like to hear from
21 Stephen Trippel.

22 **DR. TRIPPEL:** Thank you. My name is Stephen
23 Trippel. I am the past president of the
24 Orthopedic Research Society and it's on behalf
25 of that organization that I speak here today.

1 I like to view my role, though, as not just
2 speaking on behalf of the members of that
3 organization, but on behalf of all of the
4 workers in the United States who sustain or
5 suffer from musculoskeletal disabilities or
6 problems.

7 I'm also on the American Academy of Orthopedic
8 Surgeons Council on Research, and I'm also on
9 the faculty of the Indiana School of Medi--
10 Indiana University School of Medicine.

11 You've heard a lot today about occupational
12 disorders, and many of the speakers have
13 alluded to MSD in their presentations. I'm
14 sure that's not unique to this session. You've
15 probably heard it before and I'm sure you'll
16 continue to hear about it in the future.

17 The musculoskeletal system has traditionally
18 been viewed in terms of its construction by
19 bones, joints, muscles, tendons and ligaments.
20 However, that traditional view of the
21 musculoskeletal system is now outmoded. It now
22 needs to be viewed as a system of cells, cell-
23 regulatory molecules and structural molecules
24 that make up the bones, the joints, the
25 ligaments and the tendons. And if we're to

1 understand musculoskeletal disease, we need to
2 understand it now at that new level.

3 Unfortunately, our lack of understanding is
4 leading to difficulty in managing many of the
5 disorders that we encounter in the
6 musculoskeletal system.

7 When an activity gets our musculoskeletal
8 system in trouble, we experience pain, loss of
9 function and disability. Depending on the
10 occupation, this loss of function may involve
11 any number of a wide variety of ailments. I
12 could use the shoulder or the wrist or the neck
13 or the knee, but for the sake of discussion,
14 let's use an example that's fairly common, and
15 that's the back.

16 Why does one person get back pain from an
17 activity while his or her coworker, doing the
18 same activity, does not? Where specifically in
19 the back is the pain coming from? How are the
20 mechanical forces produced by an activity --
21 presumably the cause of the problem --
22 converted into the cellular or tissue damage
23 that limits the function? And isn't that the
24 problem? What cell-signaling molecules or
25 their target cells are involved in creating the

1 damage? What cell-signaling molecules and
2 target cells can be recruited to promote
3 repair? How can we gain control of these
4 molecules and cells and tissues that are
5 responsible for the problems so we can better
6 treat them -- or better still, prevent them
7 altogether?

8 Answers to these questions are needed to enable
9 workers to maintain -- and when lost, regain --
10 the high levels of musculoskeletal function
11 that they require to perform their jobs.
12 Research into the cellular biology, molecular
13 biology and mechanobiology of occupational
14 problems is needed to find the answers to these
15 questions. Such research is required -- and
16 hopefully sooner rather than later -- to
17 adequately address the current needs of
18 American workers. Thank you.

19 **DR. BORRE:** Mary Ann Latko.

20 **MS. LATKO:** Good morning. I'm Mary Ann Latko
21 and I'm the director of scientific and
22 technical initiatives with the American
23 Industrial Hygiene Association. On behalf of
24 AIHA I'm pleased to appear here today in
25 support of NIOSH and the National Occupational

1 Research Agenda. I want to thank NIOSH for
2 this opportunity, and to offer the views of
3 AIHA on the important issue of occupational
4 health and safety research.

5 As a leading association of occupational and
6 environmental health and safety professionals,
7 AIHA represents professionals who serve on the
8 front line of worker health and safety. AIHA
9 members and other professions -- professionals
10 in the occupational health and safety rely on
11 NIOSH to conduct research and make
12 recommendations for the prevention of work-
13 related illnesses and injuries. In 1996 AIHA
14 was one of the earliest supporters of the
15 development of NORA, and we remain a strong
16 supporter to this day. AIHA has provided
17 numerous liaisons to the different NORA sectors
18 over the past ten years, and believes the
19 research conducted by these sectors has worked
20 to prevent serious disabling and sometimes
21 fatal workplace illnesses and injuries. Now as
22 NIOSH looks to renew the NORA project by
23 announcing new research goals for workplace
24 health and safety, AIHA again offers our
25 support and assistance.

1 Many things have changed over the past ten
2 years. None more so than the renewed look at
3 workplace health and safety and its
4 relationship to homeland security issues and
5 emergency planning. As NIOSH looks at the many
6 possible research issues to undertake this next
7 decade of NORA, we believe the following are
8 the top issues and research needs.

9 Cost benefit analysis of occupational hygiene
10 programs, preventive measures, control
11 strategies and other interventions, including
12 the effectiveness of workplace interventions to
13 prevent or correct ergonomic concerns.

14 Clandestine drug laboratory cleanup and the
15 development of sampling and analytical methods
16 and exposure assessment strategies related to
17 the exposure of first responders and cleanup
18 workers.

19 Toxicology of nanomaterials, sampling and
20 analytical methods, and a means to monitor and
21 protect workers from excessive or potentially
22 harmful dermal and respiratory exposures.

23 Effective use and application of control
24 banding as a control strategy and methodology
25 that will aid in communicating the hazards of

1 materials to workers in a uniform manner
2 globally.
3 Harmonization of international stands for
4 respirators and other personal protective
5 clothing and equipment.
6 Response to and worker protection from pandemic
7 flu and other illnesses.
8 Developing exposure limits that consider
9 synergistic effects and incorporate factors
10 related to the reality of today's workplace,
11 where workers may be changing not only jobs but
12 careers and industries.
13 Working in non-traditional work environments,
14 and schedules that include compressed work
15 weeks and tele-commuting, and staying in the
16 workforce longer.
17 Exposure assessment strategies related to the
18 dermal route of exposure.
19 Applied industrial hygiene research that is
20 rapid turnaround for research to practice, or
21 R2P, and development of interventions that
22 focus on improving work conditions and reducing
23 or eliminating worker health and safety
24 concerns.
25 Long and short-term health effects that may be

1 experienced by emergency preparedness and
2 response personnel, and determining the proper
3 procedures and interventions to eliminate or
4 reduce those adverse health effects.

5 And finally, noise control solutions, hearing
6 protective -- hearing protector effectiveness,
7 impact noise effects and the effectiveness of
8 hearing conservation programs and how they can
9 be made more effective.

10 With the ongoing structure of NORA being
11 focused on sector councils, each sector council
12 should carefully consider if these topics are a
13 concern for their sector. And if so, include
14 the topic in their research agenda.

15 Again, AIHA appreciates the opportunity to
16 provide our public support for NIOSH and the
17 National Occupational Research Agenda. We
18 offer our assistance in any way possible, and
19 hope to continue to work closely with NIOSH and
20 the many diverse individuals and organizations
21 contributing to this important project. Thank
22 you.

23 **DR. BORRE:** Thank you, panel. As we move
24 through the morning, we've had several -- we've
25 heard from many of you. There are some folks

1 who were not here earlier and I'm going to call
2 their name again to see if they can come up and
3 speak. Also I'd like to remind everyone that
4 we do have a timekeeper and she will give you
5 the sign of one minute and zero minutes.

6 David Covarrubias -- David Covarrubias? He has
7 a great name; I wish I could say it better.
8 Anna Gilmore Hall? Mary Lamielle? James
9 Repace?

10 (No responses)

11 Manuel Anton, Michael Greenberg, Mark -- Mike
12 Demchak and Jim Mitchell.

13 (Pause)

14 We'll start with Manuel Anton.

15 **MR. ANTON:** Good morning. My name is Manual
16 Anton. I am a consultant at the PanAmerican
17 Health Organization, which is the regional
18 office for the Americas of the World Health
19 Organization. On behalf of Dr.
20 (unintelligible) who is the regional advisor on
21 worker health at the PanAmerican Health
22 Organization, I would like to speak briefly
23 about one issue that PAHO has been addressing
24 intensively in the last -- in the last six
25 years.

1 Given the fact of the fastest-growing
2 participation of Hispanics in the U.S.
3 workforce, almost 11 percent, the occupational
4 safety and health of this population has become
5 one of the priorities of our workers health
6 program. As a response to this challenge, in
7 2000 PAHO decided to join other organizations
8 in order to forge a strategic alliance, the
9 Hispanic Forum. This initiative is focused on
10 serving the needs of environmental and
11 occupational health that the Hispanic community
12 in the U.S. is facing. It is sponsored by
13 several organizations, some from the U.S.
14 government such as EPA and OSHA; private and
15 non-government organizations such as 3M, the
16 National Safety Council and the National
17 Alliance for Hispanic Health; and also by
18 multilateral organizations like PanAmerican
19 Health Organization and the Organization of
20 American States.

21 Among its general objectives we can point out
22 the following ones: To prevent, reduce and
23 eliminate the environmental and occupational
24 risks that threaten the Hispanic community in
25 the U.S.; to improve -- number two, to improve

1 availability and quality of information related
2 to the occupational and environmental health of
3 Hispanics; to reduce inequality in the access
4 to healthcare services in order to improve the
5 occupational and environmental health status of
6 Hispanic workers and their families.

7 During this six years the Hispanic Forum has
8 carried out four international events that have
9 brought together different relevant actors from
10 community-based organizations serving Hispanic
11 population in the U.S. to ministers of health
12 and labor from Latin American countries. The
13 main objectives of the first two forums were to
14 identify common challenges, forge new
15 associations, develop strategies and plans of
16 action, and finally strengthen the capacity of
17 these community-based organizations so that
18 they could develop and use better tools to
19 serve in a timely and effective way the needs
20 of this population.

21 The last two events were focused on high-level
22 decision-makers. A hemispheric meeting on
23 occupational safety and health leadership was
24 held in 2004 in order to outline the main
25 issues that were presented in the 17th World

1 Congress on Safety and Health at Work in
2 Orlando in 2005 under the team agenda of the
3 Americas. The topics included, among others,
4 occupational safety and health of vulnerable
5 populations, implications of foreign trade
6 agreements on workers health, and corporate
7 health responsibility and occupational health.
8 Within immigrant workers, Hispanic workers have
9 specific characteristics and needs. Language
10 barriers, psychosocial factors linked to the
11 legal status, poor reporting on working
12 conditions and inequalities on health care
13 access are among the issues that make this
14 group vulnerable or at risk. Within the PAHO
15 -- PAHO's activities, workers health problem
16 will get the commitment of working on this
17 issue within the Hispanic Forum.
18 Finally, as one of our collaborating centers,
19 we would like to thank NIOSH for inviting us to
20 this meeting and allow us being part of this
21 remarkable effort. Thank you.

22 **DR. BORRE:** Michael Greenberg.

23 **DR. GREENBERG:** Good morning. My name is
24 Michael Greenberg. I'm professor of emergency
25 medicine and professor of public health at

1 Drexel University College of Medicine in
2 Philadelphia, and I'm here representing the
3 American College of Medical Toxicology. I'm a
4 practicing medical toxicologist and a member of
5 that College.

6 The American College of Medical Toxicology is a
7 professional, non-profit association of
8 physicians with recognized expertise in medical
9 toxicology. For those who don't know, medical
10 toxicology is a formal medical subspecialty
11 focusing on the diagnosis, management and
12 prevention of poisoning and other adverse
13 effects due to medications, occupational and
14 environmental toxicants, and biological agents.
15 Medical toxicology is officially recognized as
16 a medical subspecialty by the American Board of
17 Medical Subspecialties.

18 There are currently only slightly more than 300
19 physician members of the American College of
20 Medical Toxicology, all of whom are Board-
21 certified in medical toxicology. There are
22 approximately 40 medical toxicology fellowship
23 physician trainees currently enrolled in
24 approximately 20 post-graduate training
25 programs nationwide. Physicians enter the two-

1 year fellowship training after completion of a
2 primary residency in emergency medicine,
3 pediatrics, internal medicine or preventive
4 medicine. Board certification requires
5 successful completion of an accredited
6 fellowship and a comprehensive written
7 examination.

8 Some examples of problems addressed by medical
9 toxicologists include hazardous exposure to
10 chemicals such as pesticides, solvents, heavy
11 metals, toxic gases, alcohols and other
12 industrial materials; unintentional and
13 intentional drug overdoses; drug abuse
14 management, including inpatient care for acute
15 withdrawal from addictive drugs, as well as
16 outpatient medical review officer services for
17 industry and organizations; envenomations;
18 ingestion of foodborne toxins such as botulism
19 and marine toxins; independent medical
20 evaluations assessing injury for possible
21 disability resulting from potentially dangerous
22 exposures; chemical, biological and nuclear and
23 radiological weapons that may be used by
24 terrorists; and protection of workers from
25 chemical hazards at work. Medical

1 toxicologists provide these kinds of
2 professional services in a variety of clinical,
3 industrial, educational and public health
4 settings including emergency departments,
5 intensive care units, outpatient clinics,
6 poison control centers, medical schools,
7 universities, clinical training sites, industry
8 and corporations, government agencies and
9 clinical and forensic laboratories.

10 Since 1999 the College has had a cooperative
11 agreement with ATSDR supporting expanded
12 educational activities for medical
13 toxicologists in environmental health and
14 toxicology, and that cooperative agreement has
15 supported various educational symposia,
16 internet-based teaching resources, multiple
17 teaching monographs, and a national network of
18 public health consultation for incidents
19 involving mass chemical exposures.

20 There's a current memo of understanding on
21 collaboration between NIOSH and the College.
22 The purpose of that memo is to facilitate
23 collaborative activities between NIOSH and of
24 the ACMT, including communication and exchange
25 of technical information, consultation,

1 professional education, document generation and
2 review, and research in a joint effort to
3 promote health and safety in the workplace and
4 to enhance the capacity of healthcare providers
5 and public health professionals to address
6 health risks posed by occupational exposure to
7 toxic -- to potentially dangerous substances.
8 I'm here today to tell you quite simply that
9 Board-certified medical toxicologists and the
10 American College of Medical Toxicology
11 represent a group that is ready, willing and
12 able to help NIOSH with respect to toxicologic
13 hazards that may exist in the workplace.
14 Specifically, medical toxicologists can be
15 helpful in planning and conducting research in
16 concert with NORA. Medical toxicologists can
17 also be helpful in identification and
18 generation of important research agendas and
19 the evaluation of research proposals by
20 participating in research councils as the new
21 NORA focus and priority-setting shifts to an
22 industry sector approach.
23 Finally, I would like to thank NIOSH for
24 allowing us to speak and I'd be happy to answer
25 any questions about medical toxicology at the

1 next break. Thank you very much.

2 **DR. BORRE:** Jim Mitchell.

3 **MR. MITCHELL:** Good morning. My name is Jim
4 Mitchell. I'm director of the Center on Aging
5 at East Carolina University in Greenville,
6 North Carolina and associate director of the
7 UNC Institute on Aging in Chapel Hill. And I'm
8 really not representing anyone in particular
9 except myself, I guess, but I'd like to make
10 some observations about potential for
11 partnering with NIOSH and other federal
12 organizations such as the National Institute on
13 Aging concerned specifically with issues such
14 as older workers and aging workers; and
15 secondly, those in occupations who serve older
16 people that require assistance; and thirdly,
17 the impact of occupational transition and job
18 loss on family care-givers and the capacity of
19 families to provide care for older people.
20 I want to offer an example of how NIOSH might
21 partner with other federal organizations in the
22 way of -- to enable them to gather better data
23 concerning the problems of older people,
24 particularly in rural areas. And I want to
25 mention an example that points out interplay

1 between the role environment and job loss and
2 our knowledge of those processes and the
3 effects of job loss on the quality of life of
4 older people.

5 We really know very little in the research
6 community about the effects of rural economic
7 and demographic transition and change on the
8 quality of life of older people living in those
9 areas, particularly people who are left behind.
10 To better address this, we formed a consortium
11 between investigators at ECU where I work, UNC
12 Chapel Hill, University of Kentucky, West
13 Virginia University, and Virginia Tech. And we
14 looked specifically at the feasibility of a
15 project looking at rural transition and quality
16 of life of older people. And I began this
17 process by looking at 55 rural counties that
18 are non-adjacent to any kind of urban area,
19 particularly -- some are adjacent to
20 micropolitan areas, but none adjacent to
21 metropolitan areas.

22 What I found when I looked at census data over
23 a 40-year period was that there is considerable
24 variability among these rural counties, and
25 variables including economic and demographic

1 transition on one dimension, and job loss in
2 the other dimension. But the significance of
3 this -- for me, anyway -- is that it represents
4 the idea that there's considerable variability
5 among rural areas or areas that we define as
6 rural. And more importantly, that that
7 variability has significant implication for the
8 quality of life of older people through
9 variables such as job loss.

10 Now what can we do about this? Well, I think
11 it's important that NIOSH and other
12 organizations and agencies reach consensus on
13 definitions of, for example, what is rural. To
14 me, rural has to extend beyond non-metropolitan
15 and it has to extend beyond non-urban in order
16 for the concept of rural to make sense.

17 I would also urge NIOSH, as it considers its
18 job sector categories that were recently
19 announced this morning, to consider
20 compatibility with other job sector categories
21 to enhance research capacity in the future,
22 especially as we get into a longitudinal and
23 long-term data-gathering. I think it's also
24 important for me to, again, emphasize the
25 critical nature of encouraging people engaged

1 in research dealing with older adults and job
2 transition and job categories to continue to
3 work together. Thank you very much.

4 **DR. BORRE:** Mike Demchak. Mike Demchak.

5 **MR. DEMCHAK:** Good morning, ladies and
6 gentlemen. My name is Mike Demchak. I'm with
7 R. M. Wilson Company. My presentation this
8 morning will be centered around ergonomically-
9 correct seating on mobile equipment in
10 underground mines. Seats in mobile equipment
11 in underground mines is extremely
12 uncomfortable. The road surfaces of most
13 roadways in underground mines, especially near
14 the face, are extremely rough and uneven. The
15 shock and vibration that one's body receives or
16 the operator receives are very intense. This
17 abuse, along with constant attenuation of one's
18 body, causes one to become weary, tired and
19 fatigued. I experienced this first-hand while
20 I was working in a mine.

21 At R. M. Wilson Company, upon my request, we
22 decided to do something about this situation.
23 We began by piecing together some different
24 types of elastomeric foams which we acquired
25 and piecing them together and -- and then we --

1 we were looking for somebody to manufacture
2 these things, which was not an easy task. Then
3 when we were into production, we started
4 marketing them.

5 The mining division of NIOSH asked me if they
6 could go underground to test our seat pads, as
7 we were the only ones who were producing seat
8 pads made out of elastomeric foams. We worked
9 up an agreement with NIOSH whereby we would
10 share ideas, they would introduce me to some
11 new foams that they were using, and I would
12 take them underground to test our seat pads.
13 One pad that we made was -- proved to be 98 --
14 95 percent effective in absorbing shock and
15 vibration.

16 NIOSH is now working on several projects with
17 which R. M. Wilson is involved. One is
18 bulldozer seats on -- in surface mines. And
19 they're checking on the breakdown of
20 elastomeric foams in seating and they're going
21 to be -- be on -- they'll be working with new
22 types of foams that'll be coming out, but this
23 is in its infancy.

24 Upon request, R. M. Wilson Company produced and
25 engineered -- engineered and produced what we

1 call a throw seat. It is composed -- a throw
2 pad, excuse me. It is composed of two seat
3 pads approximately 15 by 15 which are sewn
4 together. A person going underground,
5 especially a mechanic, can take this seat pad
6 with him. They can -- they can use it as a
7 seat pad in any situation, even on a piece of
8 mobile equipment. They can throw it on the
9 ground. They can lay on it if they're working
10 on something above, or they can kneel on it and
11 they will feel -- feel comfortable when the
12 work is done. Yes, it is ergonomically
13 correct. And when they are finished, they just
14 take the pad, pick it up by the handle that is
15 con-- and carry it away -- carry it away like a
16 -- like a suitcase.

17 These are some of the products which we're
18 working with to -- to help to make the
19 environment for miners healthier and -- and
20 we're -- and I -- I wish to thank NORA for this
21 invitation to come here to share these ideas
22 with you, and I thank you for your attention.

23 **DR. BORRE:** Thank you. As we move to our next
24 set of speakers, I would like to ask those of
25 you who would like to speak in this morning's

1 session who are not on the agenda for the
2 morning to please come and see me as the other
3 speakers that I'm calling are taking their
4 place at the podium. If there is someone else
5 who would like to speak this morning, we have
6 some room.

7 Again I'll call David Covarrubias?

8 (No responses)

9 Anna Gilmore Hall?

10 (No responses)

11 Mary Lamielle?

12 (No responses)

13 And James Repace?

14 (No responses)

15 Andrew Langer? Is there someone who would like
16 to come and -- to the podium and speak?

17 **UNIDENTIFIED:** (Off microphone)

18 (Unintelligible)

19 **DR. BORRE:** Your name?

20 **MS. CONDON:** Marian Condon.

21 **DR. BORRE:** Mary Ann Condon?

22 **MS. CONDON:** Yeah.

23 **DR. BORRE:** Okay. Is there anyone else who
24 would like to speak at this time?

25 (No responses)

1 Come on. You're welcome; there's space.

2 There's a chair; it's waiting for you.

3 Okay. Andrew.

4 **MR. LANGER:** Sure. Well, I want to thank you
5 all for allowing me to speak today. My name is
6 Andrew Langer. I'm manager of regulatory
7 policy for the National Federation of
8 Independent Business, and actually I have a
9 soft spot in my heart for occupational safety
10 and health issues. My father's an occupational
11 safety and health scientist, and as I was
12 growing up as a kid my dad spoke a great deal
13 about the research he was doing with NIOSH.
14 He's a mineralogist, my mother is an
15 epidemiologist, so if you can imagine growing
16 up in a household like that, it was kind of
17 hard for me to avoid going into regulatory
18 studies. I tried desperately to do it; didn't
19 happen.

20 Anyway, NFIB is the national small business
21 trade association. We have 600,000 members.
22 Our average member size is five employees. And
23 that's really what I wanted to talk briefly
24 with you about today because our members, our
25 small businesses represent, you know, 90

1 percent of the firms that are out there.
2 Ninety percent of the first that are out there
3 have fewer than 20 employees. And our members
4 deal with the regulations that come out of the
5 research that's done by NIOSH and interpreted
6 later on by OSHA.
7 Our members deal with those regulations
8 differently, and they have a much different
9 impact, and I'll talk very briefly about why
10 that is. We know what the cost is for our
11 members. For firms with fewer than 20
12 employees, the cost of regulation is roughly
13 \$7,600 per employee per year. So for our
14 average member of five employees, that's
15 roughly -- almost a \$40,000 regulatory cost for
16 them.
17 For firms with larger than 20 employees, that
18 cost drops, and this is where the big
19 difference is and why that is. Well, for the
20 economists in the audience, if there are any --
21 and I apologize if I start to butcher economics
22 -- the fact is that the economies of the scale
23 change for larger firms. They're better able
24 to handle the regulatory costs. They're able
25 to pass those on. And the fact is that once

1 you get above 20 employees, firms start hiring
2 the professionals needed to interpret and
3 design the regulatory meaning for the
4 regulations that are out there.

5 So our members -- invariably it's the small
6 business owner or someone that they've
7 designated, in addition to their normal duties,
8 who have to figure out what NIOSH is saying,
9 what OSHA is saying in the Code of Federal
10 Regulations. And I spend a great deal of my
11 time dealing with that as an issue for my
12 members, trying to find ways to make it easier
13 for them to figure out what they need to do to
14 be in compliance, and to protect the health and
15 safety and well-being of their -- of their
16 employees, because invariably they want to do
17 that. These small business owners, they live
18 and work and play in their communities. They
19 become almost like family with their employees,
20 and they want to make sure that they're
21 healthy. It's just a matter of figuring out
22 how to go about doing it.

23 So in essence what I would ask, as NIOSH moves
24 forward with their research agenda, that they
25 start to examine ways of making those

1 regulations simple and easy to understand. You
2 know, you start to talk about MSDs, my members
3 start to glaze over. They can understand sort
4 of repetitive injuries and they can understand
5 trying to find ways to mitigate those. But you
6 know, for our members it has to be simple.
7 I'll give you a real quick example. Last year
8 -- or a couple of years ago, OSHA put out a new
9 hazardous communications guidance system, and
10 the book that they put out was literally bigger
11 than my little portfolio -- it was about this
12 big. And we went into OSHA and we said, you
13 know, my members aren't going to use this.
14 They're going to take a look at this, they're
15 going to glaze over, go a little pale, and it's
16 more likely they're going to use it as a
17 backstop for a door than anything else. And
18 the fact is -- the bottom line is, a document
19 that -- that isn't used is a useless document.
20 And we're all after the same thing here. I
21 just testified up on the Hill last week about
22 this. We want small businesses because they
23 represent that large sector of the economy. We
24 want them to be in compliance with the law. We
25 want them to understand what their

1 responsibilities are. So what I'm asking is
2 that we all move forward to find ways to make
3 it easy, especially in light of all the
4 regulations that are on the books.

5 I know most of the folks in the crowd are
6 interested in engaging in new research to sort
7 of expand the horizons of what we're out there
8 protecting, because as we move forward in
9 science we understand that there are more
10 things maybe that we need to protect. But I
11 really think we need to make a conscientious
12 and concerted effort to figure out how to make
13 it easier for businesses to understand how to
14 comply with what's already on the books, what's
15 already out there. Because as you begin to
16 pile on more regulation, more requirements for
17 them, it's going to make it harder for them to
18 figure out what they need to do to comply with
19 what's already out there.

20 So I leave you all with that. Thank you very
21 much, and thank you for the -- allowing me the
22 opportunity to speak today.

23 **DR. BORRE:** Marian.

24 **MS. CONDON:** Thank you. Good morning. My name
25 is Marian Condon and I work at the American

1 Nurses Association as a staff specialist in --
2 in the occupational environmental health center
3 there. The ANA is a professional association
4 that represents the country's 2.9 million
5 nurses, and we have -- we have had members
6 attend the town hall meetings across the
7 country to present the occupational health
8 agenda of nurses.

9 With the aging health needs -- with the health
10 needs of an aging population and coupled with
11 the aging nursing population and the continuing
12 -- the continuing nursing shortage, all
13 increase the urgency in addressing the
14 occupational health needs of nurses.

15 There are six topic areas that our priorities
16 can be broken into, the first being the
17 musculoskeletal disorders. According to the
18 Bureau of Labor Statistics in 2004 nurses had
19 8,810 reported work-related MSDs which resulted
20 in an average of seven days away from work.

21 This of course is grossly under-reported.
22 Research to prevent back and other MSDs needs
23 to promote nursing education and training in
24 the use of assistive equipment and patient-
25 handling devices. Research needs to be done on

1 reshaping federal and state ergonomic laws to
2 highlight the ways that technology-oriented
3 safe patient-handling techniques benefit
4 patients and the nursing workforce.

5 The next topic area is that of chemical
6 exposures. RNs are routinely exposed to a
7 variety of hazardous chemicals, including
8 drugs, chemicals used in hospital labs, and
9 chemicals used for hospital cleaning and
10 sterilization purposes. And these have been
11 associated with both chronic and acute health
12 effects. Research needs include examination of
13 health effects, employee surveillance and other
14 efforts to protect nurses.

15 The next area of concern is worker fatigue.
16 Available research shows that overtime and
17 extended work shifts for nurses is associated
18 with increased risk of smoking, alcohol use,
19 risk for back, neck and shoulder disorders,
20 vehicular accidents and increased exposure to
21 biological hazards. It also affects safe
22 patient-handling with slow -- by creating
23 slowed reaction time, lapses of attention to
24 detail, errors of omission, compromised
25 problem-solving, reduced motivation and

1 decreased energy for successful completion of
2 required tasks.

3 Further research is needed to evaluate overtime
4 and extended work shifts, and the relationship
5 to productivity, quality of safety provided in
6 hospitals, and the incidence of workplace
7 accidents, injuries and stress-related
8 illnesses among nurses. Research needs to be
9 done on reshaping federal and state policy that
10 will limit the ability of employers to mandate
11 overtime.

12 Bloodborne pathogen exposure, a lot of progress
13 has been made, but there's still room for
14 improvement. Research is needed on the human
15 factors and work practices of nurses related to
16 safe patient-handling of sharp devices and
17 compliance with other measures to protect them
18 from these exposures. Further research is
19 needed on facility-wide policies to promote
20 worker compliance with safety practices,
21 further research and development of safety-
22 engineered devices is also needed.

23 Respiratory protection, research needs to be
24 done on ensuring that federal and state
25 pandemic planning policies include the use of

1 N95 filtering disposable respirators to be
2 annually fit-tested rather than the use of
3 surgical masks, which are not protective of the
4 nurse or the healthcare worker.

5 The last is -- topic is workplace violence.
6 Among all American workers, healthcare and
7 social service workers have the highest rates
8 of non-fatal assault injuries in the workplace.
9 Further research is needed on the development
10 of preventive interventions of violence towards
11 healthcare workers and intervention
12 effectiveness. Thank you very much.

13 **DR. LUM:** Thank you, panel. We have a
14 tradition now we're going to have to uphold.
15 At every other town hall meeting that we've
16 held around the country, when we've asked that
17 there's somebody in the audience that really
18 wants to speak, that's been thinking about
19 taking a few minutes and coming forward to
20 speak, it's now your time to come to the
21 podium. So we must uphold this tradition.
22 Someone in here would like to give us the final
23 talk before we break for lunch. Is that
24 correct? Who is that person? Please come down
25 front now. We're going to -- oh -- no, that's

1 a NIOSH person, that doesn't count. That was a
2 nice try, though. I give him credit -- all
3 right, let's see if there's -- Mary Lamielle; I
4 don't believe she's here. She was signed up to
5 speak. James Repace, has he come in? And then
6 David Covarrubias, who I feel I know personally
7 after this, as you must. He's not here. And I
8 think Ilise was the last one. I don't see her
9 here.

10 **MS. FEITSHANS:** (Off microphone)

11 (Unintelligible) in the afternoon.

12 **DR. LUM:** Oh, you're going to -- in the
13 afternoon. Very good.

14 **MS. FEITSHANS:** (Off microphone)

15 (Unintelligible) to eat (unintelligible).

16 **DR. LUM:** Okay. Very good, very good. And
17 Anna Gilmore Hall?

18 Well, they will be here this afternoon, with a
19 little luck, so we're going to dismiss for
20 lunch and we'll come back here at about 1:15.
21 If you are a risk-taker, there's the cafeteria
22 upstairs and -- I have to be careful because
23 you might run into a Secretary who's actually
24 cutting the ribbon, I think -- hopefully he's
25 cut it already so that you can get in -- this

1 morning on the new design in our cafeteria.
2 That's upstairs. We'll probably have to help
3 you get through security to get to the
4 elevators. We'll do that. But also going out
5 and going down the street near the metro stop
6 there's a lot of little shops in there and
7 there's the Ford Cafeteria across the other
8 street that has a very nice cafeteria.
9 Could we come back at 1:15, reconvene here.
10 And again, thank you very much for coming this
11 morning. Thank you for sharing your ideas,
12 very important, and we'll see you this
13 afternoon.

14 (Whereupon, a recess was taken from 12:00 p.m.
15 to 1:25 p.m.)

REGIONAL AND LOCAL SESSION: STAKEHOLDER PRESENTATIONS

16 **DR. LUM:** I think we can begin this afternoon's
17 session. Let me introduce Mary Ann Latko from
18 the Industrial Hygiene Association, another
19 tremendous partner with NIOSH, and who
20 volunteered late in the game to help us out
21 today -- like maybe a few hours ago, so -- but
22 she's going to guide us this afternoon. And
23 just a reminder that we would like you to stay
24 with your five minutes before we pull the trap
25 door which we've installed now and -- we didn't

1 have any problems this morning, more or less,
2 so -- I think we got through it. And again,
3 the timekeeper is right here, Ann Berry. When
4 that fist goes up, that means you have no more
5 time left.

6 So with that, I'll introduce Mary Ann. Mary
7 Ann, thank you.

8 **MS. LATKO:** Thanks, Max. We're going to be
9 bringing people up in groups of four, for those
10 of you who weren't here this morning. And Ann
11 will politely but firmly keep you on track with
12 your time, should we have to do that.

13 So our first group of panel members will be
14 Ilise Feitshans, Harold Weiss, Tom Walsh,
15 Michael Hodgson. Harold Weiss, Tom Walsh or
16 Michael Hodgson? Okay. Marilyn Fingerhut,
17 Scott Madar, Bruce Scholnick. Bruce Scholnick?
18 Shelley Davis. Bradley Rein. Ingrid Denis.
19 Thank you.

20 Our first speaker will be Ilise Feitshans with
21 GWU.

22 **MS. FEITSHANS:** Let's see, I'm not going to
23 talk like this the whole time.

24 My name is Ilise Feitshans and I'm a lawyer and
25 a public health professional, and I've been

1 writing about occupational health and lecturing
2 on the subject for about 30 years. I write the
3 treatise -- in case you've memorized it, I'm
4 sure -- for WestLaw called "Designing an
5 Effective OSHA Compliance Program", and in case
6 you haven't memorized that, you might have
7 memorized "Bringing Health to Work", I'm sure.
8 But today I'm also a script writer for Digital
9 2000, who's going to do a 35-year retrospective
10 on OSH Act and NIOSH, and I have been asked to
11 submit a paper, which I did, for the Human
12 Ecology Action League that's entitled "Nurses
13 and Teachers, Worker Health, Worker Concerns".
14 I want to discuss very briefly something from
15 the past that impacts workplaces today and in
16 the future -- genetics. The (unintelligible)
17 genetic propensities, even the very nature of
18 the interaction between these genetic players
19 and the work environment ultimately plays a
20 role, if not controls, our individual ability
21 to perform work today and tomorrow. My request
22 is very narrow and specific. I perceive the
23 role of genetic testing in the workplace as
24 inevitable. And equally inevitable, a
25 discourse that's fraught with painful questions

1 -- painful social questions such as eugenics,
2 social engineering, stigma, discrimination,
3 liability and healthcare costs. And I request
4 that NORA/NIOSH take the lead and research the
5 role of genetics and genetic technologies at
6 work.

7 Only NIOSH has the statutory permission to have
8 a really open discussion about the hard choices
9 that we will find in new genetic technologies.
10 Genetics poses hard questions. Genetics is
11 hard to understand, but it's important. And
12 perhaps the greatest challenge for NORA/NIOSH
13 will be defining not the genetic materials of
14 concern to workers and their employers, and not
15 the criteria for the predictability and
16 reliability of genetic testing and screening
17 itself. The greatest challenge, and where I
18 hope that my expertise might be of value to
19 NORA/NIOSH, is the area of the definition of
20 terms.

21 No one wants to make employers pay for problems
22 that are inherited. And social policies such
23 as the state-based funds for workers
24 compensation when injury or occupational
25 disease comes from a previous employer serves

1 as a precedent that shows us this very point.
2 But at the same time, we, society in general,
3 and NORA/NIOSH especially, must reconcile this
4 -- this fundamental notion that it might be
5 unfair to make someone pay as a repository for
6 third parties past with three very important
7 factors that that must be weighed against.
8 First of all, employers remain responsible for
9 providing employment and places of employment
10 that are free from recognized hazards under
11 Section 501 of OSH Act. And certainly genetic
12 technologies will reveal the connections
13 between workplace exposure and genetic
14 transformations, and that would be studied by
15 the scientific community. And this will
16 inevitably broaden the scope of what we
17 understand to be recognized hazards.
18 NORA/NIOSH research must explore this new
19 reality very keenly.
20 Second, ADA, the Americans with Disabilities
21 Act, does apply to genetic conditions, so
22 knowledge in the scientific community that can
23 prevent harm from recognized hazards does not
24 escape the requirement to provide reasonable
25 accommodations at work to people who can

1 perform the essential functions of their work
2 despite these concerns about genetic factors in
3 the workplace which were heretofore unknown or
4 misunderstood.

5 Lastly, the convergence of new genetic
6 technologies as applied through path-breaking
7 research may redefine our collective societal
8 notions of things like safety, health and
9 disability. We must correct policies that
10 incorporate the best genetic research without
11 creating an underclass of people who lose their
12 employability due to stigma, discrimination,
13 insurance costs or potential liability.

14 This task is of millennial importance to every
15 workplace and every worker in our society.

16 That explains why genetics is hard, not easy.
17 NORA/NIOSH must rise to meet this challenge to
18 explore the best future path for applying
19 genetic technologies and to make the best
20 practices for work in the 21st century.

21 Thank you for your attention and time.

22 **MS. LATKO:** Thank you. Our next panelist is
23 Marilyn Fingerhut with NIOSH.

24 **MS. FINGERHUT:** Actually I used to be with
25 NIOSH. I retired October 1st, but somebody

1 kindly put that in. My heart is still with
2 NIOSH.

3 I want to bring your attention to a priority of
4 NIOSH that you might not think of as being
5 connected with NORA, and that is global
6 collaborations, that the N in NORA is not
7 intended to be a limiting term, only national.
8 It was intended to mean bigger than NIOSH;
9 i.e., National. So it's a national agenda.
10 It's everybody's agenda.

11 Global collaborations is one of the cross-
12 cutting programs, like ergonomics, that we --
13 NIOSH, we at NORA, all of us who are NORA --
14 will bring to the sectors. And I want to give
15 an example of new opportunities that will exist
16 if we're very clever about how to make use of
17 them.

18 There is a international initiative that has
19 been underway for about ten years, reasonably
20 successful, called the Global Road Safety
21 Initiative -- began ten years ago after the
22 World Health Organization did some injury
23 calculations globally. Just in December 2005
24 the U.N. General Assembly passed a resolution
25 on Global Road Safety to acknowledge its

1 reasonable success and to give impetus to
2 countries to do better.

3 The World Bank, the National Academy of
4 Sciences, the CDC, the Department of
5 Transportation and USAID in February held a
6 meeting on the international Global Road Safety
7 Initiative which I went to for NIOSH, and it
8 turns out that the -- as excellent as it is, it
9 has missed the point of workers on roads, and
10 also missed the opportunity of using workplaces
11 as a way to try to deal with the problems.
12 Right now the -- and for the ten years the --
13 the priorities have been helmets, seat belts,
14 general population activities.

15 So I think that it's time to advance the
16 recognition and attention to both the problems
17 of workers and roads and also use workplaces
18 for action globally. Multinationals want their
19 people to be safe in developing countries.
20 Multinational manufacturers use trucks on
21 roads, so they are -- have an opportunity to
22 contribute to safety and also to have their
23 workers be safe.

24 Another function of global collaborations with
25 the NORA sectors will be to share good

1 practices that work elsewhere. Our little scan
2 of the European agency site on occupational
3 health information pulls -- for road safety
4 pulls up 180 documents, many of which are
5 practices which are working in their countries
6 and which could benefit workers in the U.S., as
7 well. So by -- by tackling sector-based
8 problems, both -- both for the U.S. and
9 elsewhere at the same time, and also sharing
10 things that work from one country to another,
11 we can probably do more help for workers than
12 we might have been able to otherwise.

13 Additionally, with some of these initiatives
14 there is money available so that partnerships
15 could be undertaken of multinationals,
16 international unions, with the people in the
17 countries because the World Bank and the other
18 international development organizations are in
19 fact funding activities of this type, and
20 workers could then benefit from funds that are
21 provided.

22 Another aspect for workers of these global
23 initiatives is that sometimes globally -- and
24 also we heard this morning about needle sticks
25 in national initiatives -- the workers who

1 carry out the initiative are often forgotten.
2 The healthcare workers have been forgotten in
3 the polio vaccination and the AIDS activities,
4 the training of healthcare workers didn't seem
5 to be recognized in the initiatives.
6 The road safety initiative has a comparable
7 problem. The -- those -- one of the approaches
8 to better roads in developing nations is to
9 build good roads, so you put the trucks on the
10 good roads and the people can walk on the
11 little roads. In India millions of miles of
12 roads are being constructed and there is now an
13 additional huge silicosis problem because there
14 are many mom and pop operations crushing stones
15 and the whole communities have this exposure.
16 So the development activities also need to take
17 into account the workers carrying out the
18 initiatives. And those of us who are working
19 in the different sectors and therefore can
20 become -- are or could become part of
21 international initiatives, we could ensure that
22 the working people get their due attention.

23 Thank you.

24 **MS. LATKO:** Our next panelist is Scott Madar
25 with ORC Worldwide.

1 **MR. MADAR:** Good afternoon. My name is Scott
2 Madar and I'm a consultant with ORC Worldwide.
3 ORC Worldwide welcomes this opportunity to
4 provide input and suggestions for the next
5 decade of NORA. ORC is an international
6 management and human resources consulting firm
7 whose Washington, D.C. office specializes in
8 providing occupational safety and health
9 consulting services to businesses. Currently
10 over 130 of the world's leading companies in
11 diverse industries are members of ORC's
12 occupational safety and health groups. The
13 focus of these groups is to promote effective
14 occupational safety and health programs and
15 practices in businesses.
16 ORC member companies represent a range -- a
17 broad range of industries and services,
18 including aerospace, electric power generation,
19 automotive manufacturing, telecommunications,
20 food and beverage, household and personal
21 products, petroleum, chemicals, metals, paper
22 and pharmaceuticals. To a lesser extent, ORC
23 also has members who perform or are involved in
24 construction or maritime activities. These
25 comments are solely those of ORC and may differ

1 from the views and comments of individual
2 member companies.

3 For more than 30 years, almost as long as NIOSH
4 and OSHA have been in existence, ORC has worked
5 in the occupational safety and health arena.
6 ORC was intimately involved in the
7 establishment of NORA a decade ago, and has
8 been a strong participant in and supporter of
9 the NORA process. We welcome the opportunity
10 to continue to work with NIOSH in the coming
11 decade.

12 In addition, ORC agrees that a renewed NORA
13 should focus on areas of research whose results
14 can have direct, practical and lasting impacts
15 on safety and health in the workplace. To that
16 end, ORC respectfully suggests that NIOSH
17 consider the following items when crafting the
18 research agenda for the next decade.

19 Data issues. NIOSH should examine the various
20 occupational safety and health injury, illness
21 and fatality databases in existence among
22 federal agencies. NIOSH should categorize the
23 data being collected, identify any gaps in the
24 data, and ultimately seek ways to fill those
25 gaps. In particular we encourage NIOSH to

1 focus on improving the data collection and
2 analysis related to occupational illnesses, as
3 this is a major weakness of existing data
4 systems. It simply will not be possible to
5 have a significant impact on the reduction of
6 long-term latent occupational illnesses without
7 a better set of data. Lastly with regard to
8 data, businesses are relying on contractors to
9 perform various critical job functions more
10 often. Despite increased reliance on these
11 workers, little work has been done to evaluate
12 the data regarding fatalities and serious
13 injuries among this group, and the impact of
14 these relationships on worker safety. NIOSH
15 should develop a means to collect and analyze
16 this untapped dataset.

17 Safety and health as a value to business. In
18 order to justify non-regulatory reasons for
19 increasing investments in occupational safety
20 and health, NIOSH should examine management
21 systems, metrics and risk reduction strategies
22 in order to identify best practices among the
23 various industrial sectors. This information,
24 along with the analysis of safety culture, what
25 makes a company successful, should also be the

1 focus of future research.

2 Intervention effectiveness should also continue

3 to be emphasized in NIOSH research.

4 Specifically we encourage the development of

5 additional tools that could help with the

6 evaluation of interventions. Whether they are

7 programs, policies or new control methods,

8 these tools would be especially useful to the

9 business community.

10 Emerging issues -- emerging technology, excuse

11 me. The impact of nanotechnology will soon be

12 felt in nearly all industrial sectors. This

13 cross-cutting topic must be a primary focus of

14 NIOSH's in the coming decade. NIOSH must

15 continue to take the lead in addressing

16 occupational safety and health when working

17 with nanoparticles. We suggest that NIOSH

18 should also collaborate closely with the EPA

19 and other government agencies, as well as with

20 stakeholders. ORC is currently developing a

21 matrix of business practices that address

22 safety and health and nanotechnology, and would

23 welcome NIOSH's involvement.

24 Continuing past research. ORC encourages NIOSH

25 to continue the research started during the

1 first decade of NORA. Specifically, additional
2 work is warranted in the areas of
3 musculoskeletal disorders, organization of
4 work, and hearing loss.

5 In closing, ORC appreciates the opportunity to
6 share our thoughts regarding NIOSH's research
7 agenda for the coming decade, and would be
8 willing to work with NIOSH in whatever capacity
9 necessary to see that these and other important
10 research items are addressed. Thank you.

11 **MS. LATKO:** And our fourth panelist is Ingrid
12 Denis with the Association of Occupational and
13 Environmental Clinics.

14 **MS. DENIS:** Good afternoon. Hi, my name is
15 Ingrid Denis and I'm with the Association of
16 Occupational and Environmental Clinics. One of
17 our main concerns is building a cadre of
18 occupational health and safety professionals of
19 tomorrow. Many people have expressed concern
20 about attracting students to occupational
21 safety and health. Certainly this is a
22 challenge that we all recognize and which NIOSH
23 has committed resources towards through its
24 training opportunities in the ERCs, medical
25 rotations and internship opportunities at other

1 non-profit organizations.
2 However, there's always room for improvement.
3 In light of our changing workplace and societal
4 landscape it's important that we shift our own
5 occupational safety and health compass, as
6 well. In addition to the training
7 opportunities currently offered through NIOSH,
8 there's a need to develop a more comprehensive
9 approach to recruiting people to the field.
10 There's a need to go beyond the four core
11 disciplines of medicine, nursing, industrial
12 hygiene and safety, and to include such areas
13 as health education, health economics, health
14 policy, toxicology -- it goes on.
15 There's also a need to develop an approach to
16 reach out to undergrads. This will have two
17 effects. One is to extreme -- expand the
18 stream of people applying to graduate programs
19 in occupational safety and health, and also
20 will have the effect of attracting more
21 students from diverse backgrounds. There's
22 also a need to have special outreach to
23 minorities, immigrants and people from under-
24 served communities. And finally, there's a
25 need to be willing to devote resources to

1 mentorship.

2 An approach that we've found successful at AOEC

3 is the Occupational Health Internship Program.

4 While it's still a very small program, it

5 contains some useful lessons that could be used

6 to expand the program, or establish similar

7 programs, throughout the country, perhaps

8 through the ERC or the TPG structures. OHIP

9 has two primary goals that are different from

10 those of your standard internship programs.

11 First, we want students to have a learning

12 experience that is based on understanding the

13 world of work from the point of view of the

14 worker. This often involves a participatory

15 research approach. And second, we want the

16 students to give something back to the workers.

17 We want them to share what they've learned so

18 that the workers can use this information to

19 improve our own work environments.

20 These two goals are complementary. In the

21 process of learning about the work environment

22 from workers, students begin to formulate a

23 product that will be useful to those workers.

24 Students are motivated to work to solve real

25 problems. And in the long run, we think, it

1 helps produce a highly qualified and motivated
2 occupational health professional.

3 OHIP is also unique in who it recruits. We
4 have purposely broadened our recruitment beyond
5 the core disciplines to include undergraduates
6 as a way to recruit more students from
7 immigrant and minority communities. This also
8 helps to better serve those worker communities
9 during the summer projects by having students
10 with unique cultural and language skills.

11 For example, we had a Mandarin-speaking intern
12 who played a pivotal role in a project with
13 Chinese workers -- Chinese restaurant workers.
14 We've also had Spanish-speaking interns work
15 with hotel room cleaners, day laborers and
16 retail service workers.

17 OHIP students are already making a difference -
18 - entering graduate programs in occupational
19 health nursing, being hired by university labor
20 education programs and healthcare unions. This
21 is important. Many OHIP interns still in
22 school are volunteering as translators and
23 health workers in community-based clinics.

24 NIOSH needs to continue its current program
25 that supports graduate students in the core

1 disciplines, but it also needs to fund other
2 programs such as OHIP and other training
3 programs that seek to broaden the pool of
4 students who are eligible and interested in
5 occupational health and safety.

6 In closing I'd like to leave you with a quote
7 from one of our interns from the west coast. I
8 didn't come to public health school thinking
9 this would be my focus. A lot more people
10 would be interested in occupational health and
11 safety if they knew more about what it is. We
12 need to do more PR. Occupational health and
13 safety is not on people's radars. They think
14 of work site wellness programs and don't think
15 about how work affects people's health. Thank
16 you.

17 **MS. LATKO:** Thank you, panel. Our next four
18 panelists, Harold Weiss, Tom Walsh, Michael
19 Hodgson, Bruce Scholnick, Bradley Rein, Bill
20 Kojola, Claire Barnett. Thank you.

21 Our first panelist will be Harold Weiss with
22 the University of Pittsburgh.

23 **MR. WEISS:** Hello and good afternoon. To its
24 credit, in the previous NORA research areas
25 NIOSH highlighted the needs and goals to define

1 and implement a broad national occupational
2 reproductive research agenda. To achieve this
3 NIOSH has been involved in identifying critical
4 research needs in the areas of surveillance,
5 field studies and toxicology. But left out of
6 almost all of these efforts has been a focus on
7 exposure during pregnancy to one of the most
8 dangerous and ubiquitous environmental
9 exposures to which almost all pregnant women
10 are exposed to, namely the risks from
11 automobile crashes and trauma.

12 Recent research has shown that about one in
13 every 25 pregnancies is involved in a police-
14 reported crash. What appears to be driving
15 this disconcerting statistic is an almost
16 perfect storm of women are working more,
17 working later into their pregnancy, and driving
18 more and more distances. The result is that
19 women commuters and women employed in the
20 transportation activities are increasingly at
21 risk of adverse reproductive effects from
22 crashes and other occupational trauma.

23 The population impact of this increased
24 exposure to motor vehicle crashes during
25 pregnancy can be seen in the table that I've

1 left with the panel that compares the annual
2 frequency of fetal versus infant crashes,
3 injuries and deaths. You will note that
4 because the fetus takes on the risks of the
5 mother that it -- that they're more likely to
6 be exposed and actually suffer five times as
7 many deaths than infants do from crashes, even
8 though fetuses are exposed over a much shorter
9 period of time -- obviously, nine months.

10 But fetal death is not the only endpoint of
11 concern. Over the last two decades the medical
12 literature has increasingly documented in
13 larger and larger studies the range of motor
14 vehicle crash threats to the mother, fetus and
15 the newborns. The more important among the
16 documented adverse birth outcomes for the
17 offspring include substantially increased fetal
18 mortality, neonatal deaths, placental
19 abruption, premature (unintelligible) low birth
20 weight.

21 Direct and indirect damage to the fetus from
22 maternal crashes also leads to an as yet
23 unquantified number of children that have
24 suffered injury or damage to the brain and
25 other organs. This can lead to acquired birth

1 defects and many types of developmental
2 problems. These types of disabilities are
3 well-documented in case reports throughout the
4 literature, but not through large scale
5 population-based studies. In any event, these
6 events leave the families to cope with the
7 grief of the fetal loss, or the burden for
8 carrying these young survivors who may be
9 permanently impaired.

10 The potential factors, mechanisms and impact on
11 the developing fetus resulting from maternal
12 crash involvement are usually multi-faceted but
13 as yet rather incompletely understood. From a
14 clinical perspective, many things can happen to
15 the fetus during and after a crash to upset the
16 mother, the fetus or the delicate balance
17 between them. There may be direct harm to
18 maternal, fetal or shared organs. There may be
19 indirect harm to the fetus from maternal
20 physiologic adaptations to trauma, fluid loss
21 and shock. There may be effects from maternal
22 stress, common in serious traumatic events,
23 known by itself to impact on the fetus. There
24 may be effects from diagnostic regimens,
25 medical surgical procedures or the wide variety

1 of prescription medicines and self-medications
2 taken by the mother. How all of these interact
3 under different scenarios for different levels
4 of severity at different gestational ages is
5 simply not well understood. This is mainly due
6 to a lack of study.

7 Therefore it's highly recommended that NORA
8 include within its new round of occupational
9 research priorities and within a continued
10 focus on occupational reproductive research a
11 priority on trauma and pregnancy that will, in
12 general, identify research needs, assist in the
13 development of reproductive health research,
14 expand existing surveillance systems to include
15 accurate information on maternal crash and
16 occupational factors to identify research
17 needs, to create new partnerships that expand
18 resources, to encourage research that would
19 encourage the understanding of biological and
20 biomechanical processes under (unintelligible)
21 abnormal reproductive outcomes after trauma,
22 and to encourage the dissemination of results
23 to the public to increase awareness and to
24 encourage safety assurance.

25 Some more specific examples of suggested

1 elements related to this priority are attached
2 at the end of my statement. Thank you very
3 much for your kind consideration to this
4 neglected but very important area of
5 occupational reproductive health.

6 **MS. LATKO:** Our next panelist is Bradley Rein
7 with USDA.

8 **MR. REIN:** Thank you. My name is Bradley Rein
9 and I'm with the USDA/Cooperative State
10 Research, Education and Extension Service.
11 I've been working with NIOSH since I think 1991
12 in helping organize the first Surgeon General's
13 Conference on Agriculture. I would -- am the
14 USDA representative on NORA I and I applaud
15 NIOSH for all of the things that they have done
16 to help support research in the area of
17 agriculture since the early '90s. Because of
18 NIOSH we now have a lot better sense of what
19 the issues and the injuries and illnesses and
20 the occupational safety factors are in
21 agriculture.

22 I applaud NIOSH for having the insight to
23 include an agricultural sector in NORA II, and
24 I think that's a move in the right direction
25 and I look forward to working with NIOSH on

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that.

I would like to talk about -- a little bit about some of the ways we can work together. We've been doing a lot over the years. One of the things we do -- we're a very old agency. We have a very formalized structure in working with our land grant and university partners, and one of the things they have done is they have recently developed a national agenda for action on agricultural safety and health through the experiment station directors and the extension service directors. This agenda, I think, is a move in the right direction and I would like to have NORA con-- NIOSH consider that as they develop a structure for identifying their agricultural safety and health research and outreach efforts.

I applaud Dr. Howard for his initiative in research to practice. I think that's something that we can work together very effectively with. And with that, I think I'll leave it.

Some of the issues, again, we would like to see a little bit more engineering-related types of solutions to agriculture. Agriculture's changing tremendously in this country due to

1 the influence of biotechnology, the
2 international competitiveness. There's a lot
3 of technology that I think can be transferred
4 that helps agriculture compete, both
5 internationally as well as produce a safer
6 workplace. Thank you.

7 **MS. LATKO:** The next panelist is Bill Kojola
8 with the AFL-CIO.

9 **MR. KOJOLA:** Thank you very much. I'm with the
10 safety and health department of the AFL-CIO,
11 and first of all we'd like congratulate NIOSH
12 on ten years of success with NORA I. We think
13 that the initiation of NORA was important to
14 focus what amounts to a limited amount of
15 resources to address issues of safety and
16 health and to address the most important
17 research questions affecting workers.
18 Of course it's -- you know, it's important and
19 critical to identify hazards and causes of
20 injuries and illnesses among workers in this
21 country. However, from our point of view, I
22 think the most critical element ultimately is
23 the bottom line for protecting workers is
24 intervention. This is where you begin to
25 intervene to reduce and eliminate exposure to

1 those hazards and risks. It's where the impact
2 of what we learn from research on hazards,
3 causes and risks can be implemented to realize
4 real benefits that benefit the employers and
5 employees. Research -- NIOSH's research won't
6 make a difference if we don't translate this
7 into action in our workplaces, so from our
8 perspective we think that intervention research
9 is where the substantial emphasis in NORA II.
10 We have several other suggestions I think that
11 are deserving attention and consideration as
12 NIOSH moves forward into its second decade in
13 NORA II. Unlike NORA I where the -- where the
14 -- the universe was -- was carved up by
15 focusing on issues in safety and health, NORA
16 II looks to address issue -- addressing sectors
17 and -- and industries. And you know,
18 logically, either one of those makes -- makes
19 some sense and in round two the focus will be a
20 -- a sectoral approach.
21 However, we do have some concern about losing
22 some of the cross-cutting issues that cut
23 across industries when you use a sectoral
24 basis, and I know there's going to be a group
25 that looks at these cross-cutting issues, but

1 we really want to make sure and emphasize that
2 we see this as really the central committee
3 that's linking all of these sector-based
4 researches together because we see that there's
5 a number of issues that cut across that we
6 don't want to see fall through the cracks when
7 you organize in this fashion.

8 Issues of, for example, work organization and
9 stress cut across a lot of industries.

10 Minority and vulnerable populations, uses of
11 PPE, ergonomics, nanotechnology -- these are
12 all the kinds of issues that don't just lend
13 themselves (sic) to using a sectoral approach, so
14 we -- we -- I think we need to have some
15 serious open dialogue and linkage among these
16 industry groups to make sure that these cross-
17 cutting issues don't -- don't fall through the
18 cracks.

19 Two is we like to apply the lessons that we
20 learned from NORA I and apply those to NORA II.
21 What did we learn, what -- what worked and why,
22 what didn't work and how to correct it, so that
23 we don't reorganize ourselves and fall prey to
24 making some mistakes that might have occurred
25 as -- as NORA -- as NORA I was unfolded. So I

1 think -- I think it would be important for
2 NIOSH to summarize the overall experience of
3 NORA I so that NORA II can -- can -- can
4 benefit from that and move -- and move forward.
5 Data and data accuracy, we don't know what the
6 scope of the -- of the -- of -- of workplace
7 injuries and illnesses is in this country. We
8 know that there's serious under-reporting, and
9 I think that's a major failing of the research
10 community in -- in the United States, and --
11 and I'd like to say that that's not a huge
12 problem, but I think we need to engage in
13 research to get a more comprehensive and fuller
14 picture of -- of what we're facing with -- in
15 terms of injury and illness in this country.
16 We think that establishing effective lines of
17 communication with organized labor and other
18 stakeholders is critically important, and it
19 needs to occur over the duration of -- of -- of
20 NORA II, and we're talking about a number of
21 years here.

22 Then lastly, funds for research -- they're
23 dwindling. Let's -- let's be honest. The
24 NIOSH budget has been flat or -- or less than
25 flat and as the CDC tap and -- and -- and the

1 quest for pro-- you know, providing wages and
2 benefits for workers, the amount of money
3 that's available to NIOSH to actually conduct
4 research, both intramural and extramural, is
5 dwindling. So we need, as a community of
6 stakeholders -- if we're interested in this, we
7 need to find ways to get real increases in --
8 in NIOSH research dollars so that we can move
9 the issue forward. Thank you very much.

10 **MS. LATKO:** And our fourth panelist is Claire
11 Barnett with the Healthy Schools Network.

12 **MS. BARNETT:** Thank you. Thank you very much
13 for the opportunity to provide comments today
14 towards setting the agenda for the next decade.
15 My name is Claire Barnett and I'm executive
16 director of Healthy Schools Network, Inc.
17 We're a national environmental health not-for-
18 profit organization that seeks to ensure that
19 schools are environmentally responsible to
20 children, to personnel and to their
21 communities.

22 Since our founding in the mid-1990s we have
23 secured new policies, regulations and funding
24 for schools in New York state and in New York
25 City -- the nation's largest school district --

1 and federally, and advised and insisted (sic)
2 scores of local, state and national groups on
3 establishing reform agendas on school
4 buildings.

5 We have a clearinghouse, a Healthy
6 Schools/Healthy Kids clearinghouse, both on-
7 line and telephone assistance, which we
8 developed ten years ago in concern with adult
9 occupational health and safety experts, with
10 parents and others. In that time we've worked
11 with individuals in every single state. The
12 volume of visitors now on an annual basis is
13 approximately that of the federally-funded
14 national clearinghouse on educational
15 facilities.

16 Regarding the need for research aiming at
17 improving adult health and productivity through
18 better guidelines and standards for
19 occupational safety and health in our nation's
20 120,000 public and private schools, it is a
21 very timely research opportunity that NIOSH
22 must seize. EPA estimates that approximately
23 half of the nation's 120,000 schools have
24 polluted indoor air. Asthma's not only a
25 leading occupational disease among teachers and

1 custodians, but the single largest cause of
2 student absenteeism due to chronic illness.
3 There are 54 million children in 120,000
4 buildings.

5 Indoor air can be five to 100 times more
6 polluted than outdoor air. Americans spend 80
7 to 90 percent of their time indoors. The
8 American Society of Civil Engineers believes
9 that schools are in worse shape than prisons.
10 Children, who breathe more air per pound of
11 body weight than adults and who are especially
12 vulnerable to environmental health hazards in
13 their developing years, may encounter in school
14 or in day care exactly the same or very similar
15 exposures as the adults, and they vastly
16 outnumber adults in schools.

17 Our research recommendation is that NIOSH, in
18 partnership with CDC's National Center for
19 Environmental Health and ATSDR, which carry the
20 agency's priorities on protecting children's
21 environmental health, establish a partnership
22 with the EPA, U.S. Environmental Protection
23 Agency, on a national research project to
24 evaluate school environmental health. Such a
25 pilot can rely on existing EPA guidance and

1 regulations on healthy school environments. In
2 fact there is a dedicated web portal now shared
3 between the EPA, CDC and Department of
4 Education on that. It should be advised by
5 pediatric environmental health experts and by
6 experienced parents and personnel, and
7 occupational safety and health people as well.
8 Outcomes could impact studies on indoor air and
9 help determine if assessing children's
10 environmental and occupational health is a
11 valuable way to determine overall adult
12 employee health hazards in day care centers and
13 schools where the children outnumber the adults
14 by a fair ratio. My organization and many
15 others would be pleased to partner with you on
16 such a project. Schools really are an ideal
17 workplace to study indoor air and low level
18 chemical exposures.

19 At this time I want to add to this and place on
20 the record several documents. One is a peer-
21 reviewed document or report called "Schools of
22 Ground Zero, Early Lessons Learned in
23 Children's Environmental Health". There were
24 seven public schools in the impact zone around
25 ground zero. One of them opened very early

1 before the fires were still out. The report
2 documents the evacuations and cleanups of 9/11
3 impact zone schools. An informal backpack
4 survey done in cooperation with the local
5 parent associations indicated continuing health
6 effects on elementary-age children as late as
7 spring of 2002. No agency has reported such
8 data. It was done through an informal
9 community survey.

10 We're also putting on the record a new report
11 called "Who's in Charge of Protecting
12 Children's Environmental Health at School", and
13 a data report on New York State school
14 facilities and student health, student
15 achievement and student attendance. I -- based
16 in New York State, and New York is data-happy.
17 We have a lot of good record-keeping on health
18 effects. We have a good -- lot of good data
19 reporting on standardized testing, as well as a
20 lot of data on school facilities that a lot of
21 states don't have. We recently -- our office,
22 working with some outside consultants, recently
23 completed a report showing that poor facility
24 conditions are associated with lower test
25 scores, higher absenteeism and higher

1 suspension rates. We did not have the research
2 capacity to look at employee health or
3 productivity.

4 I encourage you to consider schools as part of
5 your research agenda. Thank you.

6 **MS. LATKO:** Thank you, panel. We'll have our
7 next four speakers come up from the audience
8 now. Is Tom Walsh here?

9 (No response)

10 No Walsh. Michael Hodgson?

11 (No response)

12 Bruce Scholnick?

13 (No response)

14 Mark Ellis?

15 **UNIDENTIFIED:** (Off microphone)

16 (Unintelligible)

17 **MS. LATKO:** Gary Ewart?

18 (No response)

19 That's (unintelligible) --

20 **DR. LUM:** Are you looking at me? I was still
21 looking for that guy this morning. I don't
22 know --

23 **MS. LATKO:** We can ask and see if David's here.

24 **DR. LUM:** Yeah, is David here finally? God, I
25 hope he is. He's with the U.S. Postal Service,

1 I noticed that. Isn't their slogan "We
2 deliver"? I don't know, so we'll get them --
3 get on them for that.

4 So we come to again the chance to ask the
5 audience if there's anybody in the audience
6 that would like to come up and give us a few
7 words about what's on your mind that didn't
8 speak this morning or really is moved to speak
9 at this point. This is the time to do it.

10 (No responses)

11 Hearing no volunteers, let's move on to our
12 program. Do you want to introduce Christy?

13 **PRELIMINARY SUMMARY OF NORA DOCKET**

14 **DR. SODERHOLM:** I'll introduce Christy
15 Forrester. Christy is an epidemiologist in the
16 Cincinnati education and information division
17 at NIOSH and she agreed to disrupt her life in
18 Cincinnati for three months to come help in the
19 NORA office here in D.C. -- six months, sorry -
20 - and so we had thought early on that this
21 might be our wrap-up meeting for the NORA town
22 hall meetings, but we still have a couple more
23 to go. And so rather than doing a formal wrap-
24 up of everything, I've asked Christy to do a
25 preliminary summary of what we've heard in the

1 town hall meetings, the information that's come
2 in the docket, and so this is a -- a first-
3 glimpse -- if you come to the symposium to get
4 a more -- a better glimpse, and if you
5 volunteer to be on a research council you'll
6 have every word of it available to you. So let
7 me help by getting the slides started here.

8 **MS. FORRESTER:** That was quick. Well, hello
9 there, everybody. My name's Christy Forrester
10 and I think Sid described what I'm doing here
11 pretty well. I'm here for six months and
12 basically this past few months have been about
13 com-- attending all the town hall meetings,
14 reading the comments and basically listening to
15 you all because that is -- that is what we're
16 here to do. NORA is dependent on all of you
17 and all of your comments. That is what will
18 make it a success.

19 I'm trying to figure out how to work this
20 thing.

21 (Pause)

22 And this is just a reminder. I think Sid had
23 this slide earlier today, but for those of you
24 who weren't here this morning this shows how
25 the stakeholder input -- which would be all of

1 your input, both through the web, through the
2 information we collect at the town hall
3 meetings, through e-mail, mailed-in comments --
4 all of that will be provided to the research
5 councils. And that, in combination with the
6 surveillance data and with the expertise of the
7 folks on the council, will allow them to set
8 priorities and then finally come up with a
9 draft research strategy.

10 So we're talking about the town hall meetings.
11 We've had several -- well, we've had ten,
12 including today, and as you can see they've
13 been very successful. One in particular that
14 was interesting was the Iowa City meeting
15 because 29 of those folks actually participated
16 electronically. So for those that couldn't
17 attend, we had them patched in so that they
18 could participate as well. And then today I
19 think that basically this will probably knock
20 us right over 1,000 after today, so as of March
21 7th -- and I should probably explain why I use
22 that date. I took the total meeting attendees
23 as of the 7th and then as far as the
24 submissions go, I had to put a, you know, cut-
25 off point so what you see for the rest of this

1 is based on everything up to March 7th. And it
2 includes everything that was entered on the web
3 and then two of the town hall meetings, the
4 very first two. And the reason why there are
5 only those two is because we wait for the
6 complete transcript to come back and then it's
7 broken down into the individual sector pieces
8 or whatever it applies to, and it is entered at
9 that point. And the same thing will happen for
10 the others, but we are just receiving --
11 they're still coming in, so basically it was
12 just the first two. So if the numbers look a
13 little low in some cases, like the submissions,
14 then that definitely reflects the lack of the
15 other -- I guess it would be seven at this
16 point.

17 And another thing I want to mention about the
18 submissions, we have 379 that I considered for
19 this, is that that amount -- one submission
20 includes ten, 15 ideas a lot of the time. So
21 379 submissions is quite a bit more than that.
22 So what I did for this was I picked the top
23 issues. Now this wasn't quantitative in any
24 way, shape or form, or qualitative. It was
25 very subjective because this is an early stage,

1 and I went through and I looked at what was
2 most discussed for each of the sectors. So
3 there is a good chance that some of the things
4 may be missed over in this that in the end will
5 appear to -- will appear in the final. For
6 example, a lot of the things that came up in
7 the town hall meetings that are not yet entered
8 into the docket.

9 Okay. So for transportation, warehousing and
10 utilities, this included folks from port
11 workers, train -- railroad folks. It included
12 trucking -- just a big variety of occupations.
13 And they were concerned with environmental
14 exposures. Diesel exhaust was important for
15 the -- the trucking folks. Carbon monoxide
16 seemed to be most discussed in warehousing.
17 And also the aerosolized engine oil was an
18 issue with flight attendants. Musculoskeletal
19 disorders, that's no surprise; that seems to be
20 talked, you know, through every one of these so
21 I'll kind of just go right by that one. Shift
22 work and irregular hours are -- are an issue,
23 and work life. When I talk about work life
24 issues I'm talking about maintaining the safe
25 culture at home as well, taking care of

1 yourself at home so that -- which would then be
2 reflected in your work. And then training
3 issues, everyone talks about training and they
4 talk about it in different ways. And this one
5 in particular was just talking about the safety
6 training and the need for it and the need for
7 simple solutions, practical solutions, easy to
8 package ideas that could be distributed to the
9 different companies. And then there's small
10 business, which had a variety of different --
11 different -- what do you -- risk factors that
12 they were talking about and different research
13 ideas, talking -- I think we talked about that
14 today, a lot of the same things, the lack of
15 available funds in order -- or resources in
16 order to get the same benefits that a larger
17 company would have. For example, having an in-
18 house industrial hygienist to translate the
19 standards and the recommendations.
20 And in construction the number one, not
21 surprisingly, was falls. I didn't specify any
22 area of falls because there were so many that
23 were talked about. It was everything from the
24 surveillance of falls, the -- what happened
25 when the person fell, were they trying -- were

1 they over-reaching, what were the circumstances
2 around it. And then the others were did they
3 fall from a height, did they fall -- was there
4 a slippery surface, their -- the surveillance
5 was discussed quite a bit. And then
6 musculoskeletal disorders and noise, noise
7 coming from the very loud machinery that they
8 have everywhere so it made me think I need to
9 cover that. The training of workers and
10 employers, that was -- this group specifically
11 talked about workers and employers. I think
12 that the idea they were trying to get across is
13 that when you have both the workers and the
14 employers involved, then you have a certain
15 level of buy-in, number one, and that you have
16 a -- everyone understands everyone's on the
17 same page and so there's an appreciation for
18 safety in that way as well. Surveillance was
19 discussed, some (unintelligible) to falls, but
20 other injuries and illnesses. And then the
21 immigrant workers, as far as the language and
22 cultural barriers to communicating with them.
23 In agriculture, forestry and fishing -- well,
24 agriculture in particular -- pesticides remains
25 an issue. Training was -- as the others, came

1 up. Tractor safety, and that is for -- they
2 talked about it in the cases of the young, the
3 older -- well, just as in the next one with the
4 migrant aging and youth, there were individual
5 considerations, but tractor safety was one of
6 those as well. And then the effectiveness of
7 interventions. They talked about a lot of
8 interventions that are out there, things that
9 can be done, but that have not been evaluated
10 for the effectiveness. So you can put all of
11 these tools out there on the market, but if you
12 don't know how well they work, then what is the
13 point. And then finally surveillance.
14 In healthcare and social assistance, safe
15 patient-handling was the first. And they
16 discussed that in terms of both the person
17 who's doing the handling, the worker, as well
18 as the patient -- which I thought was kind of
19 interesting. Then non-traditional work
20 settings, as in home healthcare, the lack of
21 regulation for those particular areas, not
22 knowing what to expect when you walk into a
23 home healthcare setting. Infectious disease
24 and personal protective equipment, that came up
25 in relation to concerns for avian influenza,

1 for SARS and tuberculosis. Shift work,
2 irregular hours and fatigue -- I think we
3 talked about that earlier today. Someone had
4 mentioned that it can cause reduced vigilance,
5 it -- lack of coordination, difficulty to
6 concentrate and that would affect both the
7 worker and the patient. And then chemical
8 exposures, waste anesthetic gases was an issue
9 that came up, and disinfectants. And one of
10 the issues that I thought was interesting was
11 when they talked about safer solutions -- safer
12 substitutions, I mean. And they talked about
13 you can propose one, but if you don't know what
14 the health effects are for the substitution,
15 what good is it to propose that substitution.
16 So they talked a lot about how it would be --
17 like, for example, with glutaraldehyde, how it
18 would be useful to know what peracetic acid or
19 whatever they're using, what the long-term
20 health effects -- or short -- short-term health
21 effects would be for those particular
22 chemicals. And then violence, which I believe
23 was discussed earlier today, is -- is a huge
24 issue with the healthcare sector.
25 In wholesale and retail trade musculoskeletal

1 disorders came up, as the others. It's usually
2 with young workers, wanting to provide young
3 workers with information so that they can learn
4 safety at a young age so that it would continue
5 on through adulthood, and I thought that was
6 kind of interesting. Someone had mentioned,
7 too, that -- you know, that you -- the younger
8 folks will watch the older folks for how
9 they're working and they will model their
10 behavior based on the older folks. So if you
11 have a youth, you know, at a very young age
12 learning the right way to work, then when
13 they're older and they have younger folks
14 coming in, then they'll be working safely and
15 the folks behind them will be learning safely,
16 so I thought that was kind of interesting. And
17 economics, cost-effective safety solutions,
18 that was all about how do you sell it to the
19 employer, how do you sell safety, how can you
20 show them that safety is not an expensive,
21 immediate sort of item, that it's a long-term
22 investment in the future and future
23 productivity, that in the long run they will
24 actually make more money. And they would like
25 -- a lot of the people said that they would

1 like to have some evidence -- some hard
2 evidence so that they could take it with them
3 and say hey, look, listen, this is what
4 happened with this company or that company.
5 Inadequate health coverage was mostly discussed
6 in terms of part-time employees, the folks that
7 would work almost the full-time level, but
8 because they had that one hour less or were
9 only allowed to work up to that point, they
10 were not eligible for full health coverage, so
11 that was an important issue. Violence in the
12 same sense -- safety culture, talking about a
13 supportive safety culture, talking about if the
14 employer -- if the employer is -- values
15 safety, then it will be easier for the
16 employees to report problems that they have
17 with safety or to communicate back and forth
18 and everyone will be on the same page.
19 In the public and private services, chemical
20 exposures were a top issue. One of the
21 interesting ones that I -- well, I thought it
22 was one of the interesting ones when they
23 talked about the clandestine drug labs and they
24 talked about the crystal meth and the
25 firefighters, the police, the EMS, all of their

1 exposures as they're going into these
2 situations and not being prepared for them.
3 And musculoskeletal disorders, of course.
4 Indoor air quality, when they talked about that
5 it was with regard to schools mostly, talking
6 about asbestos and mold. And when workers
7 would go in to do -- tear out all of that, a
8 lot of times they weren't -- the kids were
9 still in the schools, so it was both dangerous
10 to the workers who weren't protected for it, as
11 well as dangerous for the children that were in
12 school there. And if it wasn't taken care of
13 properly, even after it was done -- like with
14 mold -- it could still be an issue. With work
15 organization and stress, that was -- that was a
16 very broad issue. Small business was
17 discussed, as well as violence. And one thing
18 about the violence actually that -- there was a
19 man who spoke at one of the meetings who was
20 discussing the different types of violence.
21 And one of the interesting things I found, he
22 was talking about the folks that had a self-
23 preservation -- I can't remember the
24 terminology, but he talked about the folks that
25 actually valued their own life or if they were

1 so detached that they no longer were in touch
2 with that, and that that sort of violence is so
3 different that training folks to recognize that
4 and training folks to deal with that would be a
5 challenge, but it would be important that
6 people could recognize the different signs so
7 that perhaps they could at least reduce the
8 effects of the event or escape from the event
9 completely.

10 And with mining, we had originally intended to
11 have a mining meeting, a town hall meeting.
12 But with all that has been going on with --
13 dealing with the disaster efforts and -- they
14 are just -- they're so tied up that there was
15 no way for us to schedule a meeting with them,
16 at least for the time being. So what I have
17 here are the comments from the web -- that were
18 entered from the web or sent in, as well as
19 comments from a round table from the Salt Lake
20 City town hall meeting that we had. So --
21 let's see, the -- safety programs was -- was a
22 very talked-about issue, as well as
23 communications. Communications -- one man had
24 proposed like wireless communications being in
25 the mines and being able to talk with the folks

1 upstairs, keeping in contact both in disaster
2 situations as well as just to know -- the daily
3 operations and where they are. Exposure
4 assessment, they would like to be able -- they
5 would like to know in advance -- or real-time
6 monitoring, that's more what they said. They'd
7 like to be able to walk in and know that the
8 dust or the chemical exposure, what it is when
9 they're there right there and then. They'd
10 like quick and simple ways to just -- to find
11 out because the -- the exposures that happen in
12 those situations are -- happen so quickly
13 sometimes that these quick solutions are very
14 important to them. Hearing loss, silicosis,
15 that's pretty self-explanatory, and whole body
16 vibration and then shift work, the same issues
17 of vigilance and lack of coordination.
18 And then in manufacturing, the number one was,
19 like we discussed before, the business case for
20 safety. How do you sell it to the employer.
21 And then exposure measurement and evaluation --
22 what was that one; I'm drawing a blank, sorry.
23 Then musculoskeletal disorders, hearing loss,
24 and in manufacturing a lot of the time they
25 have very old machinery that they're dealing

1 with, old equipment, and it -- it takes a while
2 for them to update the equipment usually, that
3 a lot of people are saying that they do it and
4 so they can no longer use it, and a lot of this
5 old equipment lacks equipment guards, so there
6 is a great potential for being harmed with
7 that. And then small businesses.
8 These are the cross-cutting issues. These are
9 the ones that I saw that fall across a number
10 of these, and I think that a lot of us -- we've
11 talked about some of this today, you know, with
12 musculoskeletal disorders crossing --
13 organization of work, a lot of these are -- are
14 -- well, they're all cross-cutting issues.
15 And then with the new issues, these are things
16 that we came across that are I guess new to
17 NORA, new to -- or at least they're the now,
18 sort of the things that are coming up and being
19 discussed. They're contemporary, I guess.
20 Global issues were talked about a lot,
21 everything from harmonization, collaboration,
22 any "ations", so a whole bunch. And then work
23 life was -- was discussed a lot. It -- to have
24 -- a healthy worker is a more productive
25 worker, and a lot of employers would like to

1 see the healthy work life at -- the healthy
2 life at home, as well as at work, and the
3 employees as well. And then nanotechnology,
4 you know, how do you measure it. There are so
5 many aspects of nanotechnology because it's so
6 new and it's -- it moves so quickly that that's
7 a very top issue. And then immigrants, they're
8 -- the percentage of immigrants and the issues
9 that go along with that, the language barriers,
10 culture barriers, it's such a -- an important
11 topic right now because they -- folks that do
12 not speak English, it's not their first
13 language, are quite a large percentage of the
14 workforce, so communicating with them will --
15 well, it will keep from them getting hurt as
16 far as safety goes, but it'll also help with
17 other people because it's not just the worker
18 that is learning about safety. It's also the
19 workers that that worker's working with, and I
20 thought that was an interesting comment that
21 someone had made regarding that. Then there's
22 knowledge management, and I think that that is
23 probably one of the most important ones on this
24 list. They -- folks talk about the management
25 of knowledge, getting the word out to the

1 people that you need to get it to so that it's
2 useful. You know, research for research's sake
3 is not useful. It's -- well, as Dr. Howard
4 would say, you know, that's -- we want an
5 impact. We want to show impact. We don't want
6 to do research for research's sake. So we need
7 to get it out there. And there was somebody
8 that talked about chloramines today, and he had
9 mentioned that he -- this was a repeat
10 presentation of someone who had done it before,
11 and at the last one it actually -- you know, I
12 was putting together this presentation, that
13 last description had kind of stuck with me
14 because the man described the issues with
15 poultry and the chloramines, and he talked
16 about how it took, you know, a period of time
17 before they could figure out exactly what was
18 going on. Chloramines didn't come to mind.
19 That wasn't what they thought of first. And I
20 think that that -- that right there, knowing
21 that that is an issue and knowing that that's a
22 problem, whether or not you know how it
23 happens, you know that this is an issue when
24 these symptoms happen and when these chemicals
25 are present. So obviously the information was

1 not getting to the people who needed to get the
2 information. So I thought that that was a
3 pretty good example of a place where that could
4 have been improved, and it sounds like it
5 actually has been improved, from their -- their
6 discussions. Let's see -- oh, and most
7 importantly in the knowledge management is all
8 about research to practice, which -- there's
9 the (unintelligible) -- which is a -- is a very
10 important aspect of what we're doing here at
11 NORA. It's to take the research -- to transfer
12 the research and translate it -- translate the
13 findings and then to put them out there, to put
14 them in the workplace, to get them active and
15 to get them to the people who need them the
16 most.

17 And thank you all for staying. I appreciate
18 your staying till the end of this -- you know,
19 for my presentation. I wasn't sure if there'd
20 be anybody left, but since it's a little
21 earlier in the afternoon, I think that that may
22 be -- I lucked out there. I think you guys
23 have all heard about the e-news. It's really
24 important, let's you know what's going on at
25 NIOSH. If you want to provide additional

1 input, there's an e-mail -- the address is up
2 there, as well as the e-mail for the NORA
3 coordinator's office. And I appreciate your
4 attention and I'd be glad to answer any easy
5 questions.

6 **DR. LUM:** What a great line.

7 **MS. FORRESTER:** Wonder where I got that from?
8 Anybody --

9 **DR. LUM:** Any questions? Did anyone come in
10 that would like to testify during this -- would
11 like to say something -- yes. Would you --
12 upstairs or do you want to stand where you are?

13 **UNIDENTIFIED:** This is Shelley Davis, she'd
14 like to --

15 **DR. LUM:** Would you care to go up to the podium
16 or --

17 **MS. DAVIS:** Yes.

18 **DR. LUM:** -- would you rather stand here and
19 (unintelligible) be more comfortable?

20 **MS. DAVIS:** (Off microphone) (Unintelligible)
21 wireless mike?

22 **DR. LUM:** Wireless? It's up to you.

23 **MS. DAVIS:** Sure, whatever, that'll be fine.
24 Thank you very much.

25 Good afternoon, my name is Shelley Davis. I'm

1 the deputy director of the Farmworker Justice
2 Fund. In 2003 -- 2004 the Associated Press
3 surprised the nation by saying that Mexican
4 immigrant workers in the United States had the
5 highest fatality rate of any occupational
6 group. As was just mentioned, immigrant
7 workers have particular occupational health and
8 safety needs. They often work in the most
9 hazardous jobs and due to language, culture and
10 other barriers, receive inadequate training.
11 I want to focus my remarks on a particular
12 segment of the immigrant workforce, which is
13 the nation's 2.5 million migrant and seasonal
14 farm workers. Agriculture consistently ranks
15 as one of the three most hazardous occupations
16 in the nation. (Unintelligible) for example
17 the combined category of agriculture, forestry
18 and fishing had a fatality rate of 31.2 per --
19 cases per 100,000 workers. And with regard to
20 non-fatal on-the-job injuries, they had a rate
21 of more than six per 100 workers, including 3.7
22 per 100 workers of lost-time injuries.
23 (Unintelligible) fatal injuries with
24 (unintelligible) leading cause was agricultural
25 vehicles, both tractors and, for hired farm

1 workers, the vehicles used to transport them to
2 and from the fields. Here's the non-fatal
3 injuries. Because of the kinds of work they do
4 -- harvesting, pruning, sorting, packing --
5 they suffer a host of sprain and strain,
6 musculoskeletal injuries, eye injuries from
7 debris, cuts and lacerations from machetes,
8 contusions, amputations from farm equipment,
9 chemical-related illnesses from pesticides.
10 This workforce is primarily an immigrant
11 workforce. The National Agricultural Worker
12 Survey estimates that 78 percent of farm
13 workers come from Mexico and Latin America.
14 And 81 percent speak Spanish as their native
15 language, and then only 25 percent understand
16 English well enough to obtain information in
17 that language.
18 There are also particular structural reasons in
19 agriculture which make it particularly
20 hazardous. The industry has gone to a great
21 dependence on labor intermediaries or crew
22 leaders that recruit, hire and transport the
23 workers. And these crew leaders oftentimes are
24 former farm workers themselves, with only a
25 battered school bus or van as their assets to

1 transport the workers, and they frequently
2 don't receive enough compensation from the
3 growers to provide adequate workplace safety.
4 The second reason is that the National
5 Agricultural Worker Survey (unintelligible) 52
6 percent of the farm workforce isn't documented.
7 And these, you know, (unintelligible) workers
8 are loathe to complain about unsafe workplace
9 conditions, even to their employers, let alone
10 to government investigators. Also language,
11 culture, mobility, short tenure at any given
12 workplace all combine to make the conditions
13 hazardous so that workers are not adequately
14 trained, are often unfamiliar with workplace
15 conditions, and don't have trusted sources that
16 they can turn to for assistance. In addition,
17 agricultural workers lack union representation.
18 Only two percent are union members. As a
19 result, few gain protections from collective
20 bargaining, and most federal and state labor
21 laws, partial or whole, exclude agricultural
22 workers. In OSHA, for example, there are only
23 seven OSHA standards that apply in agriculture,
24 even though many other standards cover
25 conditions that are equally prevalent in

1 agriculture. For example, fall protection,
2 (unintelligible), electrocution, et cetera.
3 So in these context researchers could play a
4 very important role in identifying the causes
5 of injuries and developing low-cost
6 interventions that could really improve
7 occupational health and safety in agricultural
8 workplace.

9 We at Farmworker Justice have been
10 participating over the last 18 months in a
11 NIOSH-funded community participatory research
12 project working with indigenous workers in
13 Oregon, and we've really seen first-hand the
14 value of that, the key role played by the
15 workers themselves in voicing their concerns
16 and identifying the kinds of interventions
17 they're looking for and what they would use.
18 We've also been working across the nation over
19 the last year with researchers and advocates
20 and funders to try to develop an agricultural
21 research agenda. And we've found that
22 oftentime researchers and advocates live in two
23 very different camps and don't communicate.
24 And so the research that's done is not really
25 addressing the key issues and is not being

1 utilized.

2 So from these experiences we'd like to just
3 cull out a few recommendations for the NIOSH
4 NORA. First, we think it's extremely important
5 that NIOSH fund community participatory
6 research projects, that researchers involve the
7 targeted workers and their representatives from
8 the outset in designing the project, in
9 developing interventions and testing them, in
10 making sure that this is the kind of issue the
11 workers think of as important, and that the
12 solutions are low-cost and easy to implement
13 and things that are likely to continue after
14 the research project is done. That they
15 involve community-based organizations that know
16 where these workers are and are trusted by
17 these workers 'cause otherwise you won't get
18 community participation and buy-in, and that is
19 really critical to the usefulness of the
20 project.

21 There are also particular areas that are worth
22 focusing on. First, because of the primacy of
23 motor vehicle accidents in workplace
24 fatalities, that should be an issue that's --
25 that's given attention, as is musculoskeletal

1 disorders, eye injuries, traumatic injuries,
2 heat-related illness and the other major causes
3 of occupational injury and illness in the
4 agricultural workplace.

5 There's also a real paucity of data and the
6 National Agricultural Worker Survey is one good
7 example, but it's very limited in the area of
8 occupational health and safety, in part because
9 funding for safety issues has only been
10 sporadic. So joining forces to put some money
11 into the NAWS as a continuing datastream would
12 be very helpful, as would be long-term
13 epidemiological research that focuses on
14 agricultural workers, even when they return
15 home to Mexico, because many workers, once they
16 become ill or disabled, do return home. And so
17 the adverse health effects they suffer is lost
18 to researchers who only focus on active workers
19 or workers in the United States.

20 Finally, I'd just like to say that we really
21 encourage you to continue supporting the
22 environmental justice grants and other similar
23 funding streams that allow you to tap into
24 researchers that are working with community-
25 based organizations that have close connections

1 to the targeted workforce that can really
2 involve the workers themselves in the projects.
3 Thank you very much.

4 **DR. LUM:** Thanks very much. Thank you. I
5 noticed some folks that walked in late. Again
6 I'll ask, is there anyone that we haven't heard
7 from today who would like to come forward and -
8 - please.

9 **MR. ELLIS:** Good afternoon. My name's Mark
10 Ellis and I'm president of the Industrial
11 Minerals Association of North America, which is
12 a trade organization that represents producers
13 and processors of industrial minerals. We also
14 represent the manufacturers of mining
15 equipment, railroads and trucking companies
16 that serve the industry, law firms, consulting
17 firms, media companies, and all of it is geared
18 towards producing minerals that are essential
19 for our everyday life.

20 These are such basic things as glass, ceramics,
21 paints and coatings. They're the ingredients
22 that are used in fertilizers, so it's basic
23 building-block material and we're that silent
24 part of the mining industry that you don't hear
25 about all the time. Clearly you're familiar

1 with coal or your crushed stone, sand and
2 gravel. But we're more the commodity that are
3 used in manufacturing and agriculture.
4 The Association has strong commitment to
5 occupational safety and health. We have a
6 board established, a safety and health
7 committee that reports to the board, and
8 they're involved in a number of occupational
9 safety and health issues. Typical kind of
10 things are broken down into task forces. Some
11 of the kinds of issues we deal with are dust
12 control and ergonomics.
13 We participate in a number of partnerships with
14 research agencies and enforcement agencies. We
15 have an alliance with the Mine Safety and
16 Health Administration and we're exploring a
17 similar arrangement with the Occupational
18 Safety and Health Administration. And we are
19 engaged in numerous partnerships with NIOSH,
20 including diesel particulate matter, noise,
21 emergency mine communications and the like.
22 I think that what I'd like to draw your
23 attention to is our biggest safety and health
24 challenges, and this is obviously where we need
25 to make sure that these subjects are covered in

1 the occupational research agenda. The task --
2 the town meetings that have been held around
3 the country -- we were unsuccessful as of yet
4 in getting one held for the mining industry,
5 and I understand that NIOSH is working hard to
6 try to make that happen, so we will be a
7 participant in that and we will encourage
8 others to be involved as well.

9 But the challenges that we face are not
10 unfamiliar. They're well-recognized
11 occupational safety and health challenges.
12 They've been around for centuries -- over-
13 exposure to dust, over-exposure to crystalline
14 silica, noise-induced hearing loss. Probably
15 the biggest one that we're facing now and it is
16 partly a testament to how well we've done in
17 keeping the workplace safe and healthy is an
18 aging workforce, but that presents new issues
19 for us.

20 I think that NIOSH has done a lot of
21 progressive things under Dr. Howard, and I
22 think that one of the things that we feel is
23 important for the National Occupational
24 Research Agenda is something that focuses on
25 the research to practice initiative. It's very

1 important to take research and to translate
2 that into something that's useable out in
3 industry, and I know that that's something that
4 Dr. Howard has moved very aggressively on in
5 his tenure at NIOSH, and we applaud him for
6 that and we encourage the agenda, as it's
7 developed, to stay in that same line.

8 I think that the biggest problems we have right
9 now are intervention strategies. We know what
10 our problems are, but how do we break them.
11 And so I think that any research that can be
12 done to determine what is an effective
13 intervention strategy would be of great
14 assistance to us.

15 Also control technologies. People have been
16 knocking metal picks against hard rocks for
17 centuries, and it makes a lot of noise, it
18 makes dust, and we have yet to figure out a way
19 to take the metal and coat it and make it so
20 that when you bang it against the rock it
21 doesn't make a noise or doesn't produce dust.
22 But that's where the research is needed, trying
23 to get things that either control the exposure
24 or isolate the person who's conducting the
25 work, better PPE -- you know, these are the

1 kind of things that would be of benefit to our
2 industry.

3 So I think I'll just close with that, and thank
4 you for listening to us and we hope that you'll
5 support our agenda.

6 **DR. LUM:** Thank you very much. Anyone else?

7 (No responses)

8 And finally, is there -- the remainder of the
9 folks that are in the audience, is there any
10 "aha" moments that you want to share with us
11 that you may have had or anything you want to
12 share before we close the meeting?

13 (No responses)

14 Not necessarily a testimony, something you
15 heard or you want to share with the audience,
16 anyone out there to do that?

17 (No responses)

18 **ADJOURN**

19 Well, if that's the end, I'd just like to say
20 one more thing here. If Mary Ann could please
21 come up and, you know, we have to give you
22 something to take on the Metro, something --
23 now this thing -- don't drop it on your foot, I
24 must say. But again, I think -- the short is
25 that we couldn't do our work without partners

1 like you guys helping us for ten years, helping
2 us get NORA together for the town hall and also
3 for the symposium. Thank you very much. Thank
4 you for your leadership, really. Thank you.
5 And now, if -- as Christy said, you know, it's
6 not just to thank you for coming, it's to thank
7 you for staying. Just look around, I don't
8 think motivation is the issue for us. People
9 are concerned about this. We appreciate you
10 staying. These are your -- the folks that
11 really make it happen for us.
12 Please join us this coming decade in the NORA
13 symp-- at the NORA symposium in April and the
14 NORA agenda that's coming up for the next
15 decade. Thank you all very much.

16 (Whereupon, the meeting adjourned at 2:52 p.m.)
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CERTIFICATE OF COURT REPORTER**STATE OF GEORGIA****COUNTY OF FULTON**

I, Steven Ray Green, Certified Merit Court Reporter, do hereby certify that I reported the above and foregoing on the day of March 13, 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 31st day of March, 2006.

STEVEN RAY GREEN, CCR**CERTIFIED MERIT COURT REPORTER****CERTIFICATE NUMBER: A-2102**