

CDC *Vital Signs* Town Hall Teleconference

Keeping Truckers Safe on the Road

March 10, 2015

2:00 pm (EDT)

Coordinator: Welcome and thank you for standing by. At this time all participants are in a listen only mode until the question and answer session of today's call. At that time if you would like to ask a question please press star 1.

Today's conference is being recorded. If you have any objection, please disconnect at this time. I would now like to turn the meeting over to your host Dr. Rich Schieber. You may begin.

Dr. Rich Schieber: Hi. I'm Rich Schieber, the director of CDC's *Vital Signs* program, and very glad you could join us today. We're going to be discussing for the next hour the latest *Vital Signs* report and it's about trucker safety.

Let me go over some housekeeping details first. To see the PowerPoint presentation that we're going to go by, you can go online and download it and you can go to this Web address to download it. It's [www.cdc.gov/stltpublichealth](http://www.cdc.gov/stltpublichealth). Look on the far right side of the page for the *Vital Signs* teleconference link.

Another way is that you can Google "CDC *Vital Signs* Town Hall" and click on the top link and that should get you there. Also on the same web page you can access three bios for today's presenters and the audio recording and transcript which will be available next week.

So after the presenters talk there will be time for Q&A. And you can get in the queue at any time even during the talk by pressing star 1 and then say your name when you're prompted.

So for our topic today Keeping Truckers Safe on the Road let me do some introductions. We're going to hear from three colleagues.

First we'll hear from my friend, Dr. Stephanie Pratt, the coordinator for the Center for Motor Vehicle Safety in the Division of Safety Research at the CDC National Institute for Occupational Safety and Health or NIOSH. She will talk about this month's *Vital Signs* report.

Then we'll have Dr. Terry Bunn present. Dr. Bunn is an associate professor in the Department of Preventive Medicine and Environmental Health at the University of Kentucky College of Public Health. And she's the director of the Kentucky Injury Prevention and Research Center.

Dr. Bunn will discuss surveillance, research, and outreach of the Kentucky Occupational Safety and Health Surveillance program. She will then hand the call over to Mike Watson, the global road safety manager for the Shell International Petroleum Company. And he will talk about Shell's road safety journey. So now let me turn the call over to Stephanie Pratt. Thank you.

Dr. Stephanie Pratt: Thank you Dr. Schieber. And thanks for - to everyone for joining us today. The theme today for our teleconference is Keeping Truckers Safe on the Road.

As Dr. Schieber said I'm going to talk about the latest *Vital Signs* report which is in - the theme of which is Trucker Safety Using a Seat Belt Matters but today we'll expand the discussion a bit more to some other road safety topics.

Would you please go to slide number 5? We're here today to talk about the safety of the workers we all depend on to deliver products and services - truck drivers.

The problem is that 65% of the truck drivers who die on the job, die in a motor vehicle crash. We've seen recent increases in the deaths of large truck occupants.

These dropped to 35-year lows in 2009 but have begun to increase again between 2009 and 2012. In fact, the National Transportation Safety Board has identified truck safety as one of its most wanted safety improvements for 2015.

It's well known that seat belts are the most effective way to prevent crash injuries or deaths. Since 1970, federal regulations have required drivers of large trucks to use their seat belts. We've seen substantial improvements in seat belt use by truck drivers in the last ten years but about one in six still don't use their seat belt.

Slide 6. There are about 2.6 million Americans who drive a large truck for work. Because many of the data points I'm going to cite today are specific to large trucks it bears taking a moment to define these.

Large trucks are those that weigh more than 10,000 pounds gross vehicle weight rating. They're used in a variety of work settings and they come in all shapes and sizes.

In addition to the tractor trailers we typically think of, large trucks are also the heavy duty pickup trucks we would see on a construction or mine site. There're panel trucks that deliver packages. They may be emergency vehicles, utility trucks, auto transporters, and so on.

Slide 7. The aims for our *Vital Signs* study were to examine current data on worker deaths and injuries in large truck crashes, to identify risk factors that distinguish truck drivers who never use their belts from those who do, and to recommend how states and employers can help prevent crashes, injuries, and deaths from large truck traffic.

The main focus of our *Vital Signs* report was increasing seat belt use among truckers but recognizing the importance of making sure that crashes don't happen in the first place. Today we're going to also talk about some other risk factors for crashes such as drowsy and distracted driving.

Slide 8. You're the primary data sources we use for our study. First the national survey of US Long-Haul Truck Driver Health and Injury. This was a survey conducted by NIOSH via personal interview at 32 truck stops across the country.

We also used two data sources from the US Department of Transportation. The first is the Fatality Analysis Reporting System or FARS which is a national

census of traffic crashes that were reported to the police and that resulted in at least one fatality within 30 days of the crash.

We also looked at a survey of seat belt use by large trucks and bus drivers. This was conducted by DOT using an observation methodology where researchers looked at truck drivers as they were going by in traffic and ascertained their belt use.

We also used the Census of Fatal Occupational Injuries or CFOI which is the Bureau of Labor Statistics database. That's a national census of on-the-job deaths from all causes.

Slide 9. Here're some basic statistics on truck crashes, injuries, and fatalities. In 2012, nearly 700 large truck drivers or passengers died in a traffic crash and 26,000 were injured.

At least 35% of the truck drivers who died were not wearing a seat belt. And the study from the Department of Transportation suggests that if seat belts had been worn up to 40% of these deaths could be prevented.

In the NIOSH survey of long-haul drivers, 35% reported that they had had one or more serious crashes at some time during their driving careers. And by serious crashes I mean one that had resulted in injury, fatality, or property damage that was serious enough that the vehicle had to be towed away.

And our survey also showed that on average long-haul drivers reported driving 108,000 miles in the past year. Now this high level of exposure to

traffic and high incidence of crashes underscores the importance of wearing a seat belt all the time.

Slide 10. In addition to causing a great many injuries and deaths of large truck occupants large truck crashes also place quite a burden on society. There were a total of 317 crashes reported to the police in 2012.

The total cost was estimated to be \$99 billion, \$40 billion of which was associated with fatal crashes alone. And for each death of a driver or a passenger in a large truck, there were six deaths of other road users in large truck crashes that year.

Slide 11. Our survey found that for long-haul drivers not using a seat belt was linked to other kinds of safety risks. Compared to the long-haul drivers who wore their seat belt drivers who reported never wearing them were also more likely to live in a state that didn't have a primary enforcement seat belt law.

And this type of law allows a police officer to pull over and ticket a driver or passenger for not wearing a seat belt even if they don't see any other traffic violation.

Drivers who never wore their belts were also more likely to work for an employer that didn't have a written safety program, to report having had at least one moving violation in the past year. An example of this would be running a traffic signal. And they reported often driving ten miles an hour or more over the speed limit.

Slide 12. A report described what states can do to improve truck safety. First - and follows from the previous slide - increasing seat belt use through primary enforcement seat belt laws. Also, enforcing federal regulations and state laws that address risk factors for crashes.

For example, regulations on maximum hours of driving, bans on text messaging, bans on handheld phones, and speed limits. It's important here to have coordination between state police and the state and federal inspectors who enforce trucking safety regulations.

Another thing that states can do because of the burden of truck crashes on the public is to include information about how to drive safely around large trucks in driver education manuals and trainings.

Slide 13. We also talked about what employers can do to prevent truck crashes. First, a commitment to driver safety at the highest levels of leadership is essential. And you'll hear a great deal more about that from Mike Watson in a few minutes.

Then establish a comprehensive driver safety program and enforce the policies that you set. In your policies you can certainly require belt use, and I'll talk about that in a minute, but also address the factors that are known to contribute to the occurrence of crashes.

For example, your policies might require setting delivery schedules that would allow drivers to operate within the law with respect to speed limits and hours of service.

Your programs could also educate drivers on how to avoid drowsy or distracted driving. They could also ban text messaging and the use of handheld phones while driving. Now these are already required by federal regulations but the point here is that employer policies support those regulations.

And finally considering - consider banning hands-free phones because any phone conversation diverts the driver's attention away from their main job which is to drive. Employers can also involve drivers in solving driver safety problems rather than simply dictating what needs to happen.

Slide 14. Employers can do a number of things to promote seat belt use specifically. First, requiring everyone in the truck to buckle up. Next, explaining the value and safety benefits of wearing a seat belt in trainings and routine safety meetings and again involving workers in designing and implementing the programs that would promote belt use.

Slide 15. Here are my take home points. The best way to keep truck drivers safe is to prevent crashes from occurring in the first place. And if a crash does occur wearing a seat belt is the single most effective way to prevent injury or death.

Slide 16. I thank you for your attention. And here's my contact information. I look forward to our discussions later. And I'll now turn this over to Dr. Terry Bunn.

Dr. Terry Bunn: Thank you Dr. Pratt. Good afternoon. I'm Terry Bunn, associate professor in the Department of Preventive Medicine and Environmental Health at the UK

College of Public Health. And I've directed the Kentucky Injury Prevention and Research Center or KIPRC as we call it since 2010.

Today I'll be providing examples of Kentucky's own experience in trucking injury surveillance, research, and outreach.

Slide 18. This is our disclaimer. Most all of this work was supported by NIOSH. Its contents are solely our own responsibility and this presentation does not represent the official views of NIOSH.

Slide 19. KIPRC is the unique partnership between the University of Kentucky and the Kentucky State Department for Public Health. We're the bona fide agent for the Department for Public Health in the areas of violence and injury prevention and serve this function in their stead.

Our state Occupational Safety and Health Surveillance program contains both an indicator program as well as our Fatality Assessment and Control Evaluation program or our FACE program.

Our Kentucky Occupational Safety and Health Surveillance program or KOSHS program as we call it has been funded since 2005. And it uses multiple existing data sources to track both fatal and nonfatal worker injury and illness incidence rates, work-related hospitalizations, work-related burns, and high injury risk industries and occupations to name a few.

With these indicators we identify state specific occupational injuries, priorities, and issues. Our FACE program has been funded since 1994, more than 20 years now. And we focused on trucking safety initiatives since 2005.

We conduct truck driver injury surveillance and perform onsite fatality investigations so that we can produce fatality reports with feasible, practical prevention recommendations to inform employer worker safety trainings as well as intervention and policy development.

We also conduct research studies based on Worker's Compensation injury data, emergency departments, inpatient hospitalization and trauma registry data, crash data, and fatality data as well. We've also established numerous industry and association partnerships.

Slide 20. In the surveillance of truck driver injuries that you can see here on the slide there were approximately between 15 and 25 transportation fatalities per year, transportation - actually truck driver fatalities per year between 2009 and 2013 using our own FACE data as the data source.

Looking at truck driver first reports of injuries that were submitted to Worker's Compensation that contain both nonfatal and fatal injuries, both driving related and non-driving related injuries are displayed. The number first reports of injuries has increased in the last three years from 2011 to 2013. Note that these data are numbers and not rates.

Slide 21. The KOSHS program has published a number of research studies in the area of trucking safety. Slide 21 shows the results of our respective match case controlled study published in 2005, a seminal study that used Kentucky crash data and determined driver sleepiness, fatigue, distraction and inattention, drivers over the age of 50, and the nonuse of seat belts increase the odds of a fatal commercial vehicle collision.

The cases were commercial vehicle drivers who died and the controls were drivers who survived an injury collision. The case in controls were matched on unit types as well as roadway type.

These results provided evidence of occupant restraint effectiveness in commercial vehicle collisions no matter whether the occupant was the driver or the passenger.

Slide 22. Federal Motor Carrier Safety Administration regulations mandate driver and sleeper berth occupant restraint installation but only require truck drivers to wear seat belts not sleeper berth passengers.

In this 2013 matched pair covert study injury odds were increased more than 2.25 times for both drivers and sleeper berth passengers who were not using occupant safety restraints compared to those who did use their occupant safety restraints in a semi-truck crash.

Nonuse of occupant safety restraints by both drivers and sleeper berth passengers significantly increase the odds of an injury in a semi-truck collision regardless of the seating position.

From these results we recommended that trucking companies institute mandatory occupant safety restraint policies that pertain to both semi-truck drivers and sleeper berth passengers.

The editors of Fleet Owner and American Trucker interviewed our FACE personnel and published this study in Fleet Owner, Medical Express, and CDL Jobs in 2013.

The article was also disseminated to the Federal Motor Carrier Safety Administration or FMCSA at the national level who responded that this subject was of great interest to them and that it would be circulated widely.

Based on this study and the recommendations in two Kentucky sleeper berth fatality reports a couple of companies even let us know that they now require occupant restraint use in sleeper berths.

Slide 23. Truck driver injuries, surveillance, and research are both conducted here at KIPRC in collaboration with numerous partners. One primary trucking partner is the Kentucky Trucking Association.

We collaborate with them on the Kentucky Trucking quarterly newsletters and we're concurrently developing worker safety trainings with them. They're an integral of our FACE advisory committee.

The National Trucking Association - actually National Truckers Association collaborates with us and other FACE states on fatality report-based truck alerts that are published on their blog.

And the Owner Operator Independent Driver's Association or OOIDA, Women in Trucking, Kentucky Motor Transport Association, the Kentucky Governor's Executive Committee for Highway Safety, the Kentucky Chapter of the FMCSA and Federal Highway Administration, individual trucking

employers, as well as insurance agency partners all inform and use Kentucky FACE findings. And many of them are advisory committee members.

Slide 24. In the area of policy development, Kentucky is a leader in moving the national agenda forward on mandated entry level driver safety training and national rule making. The Kentucky FACE program testified before the Kentucky Senate Transportation Committee on behalf of KR281.907 that passed in 2013 and mandates annual driver safety training of commercial carriers registering for interstate and intrastate licenses.

FACE program testimony included examples of truck driver FACE reports that recommended driver safety training on a number of topics including driver distractions, fatigue, restraint use, vehicle inspection, and roadside emergency management.

Slide 25. FACE trucking outputs are disseminated to a wide range of stakeholders including the Governors Executive Committee and Highway Safety that includes the Kentucky State Police, the Kentucky Office of Highway Safety, the FMCSA, and the Kentucky Motor Transport Association, as well as to our 4,200 trucking employer and employee LISTSERV.

We also utilize social media such as Twitter and Facebook. Our FACE advisory committee disseminates our output. The advisory committee consists of OSHA representatives, the Department of Workers Claims, FMCSA, the Trucking Association, and others.

In addition we provide our program outputs to the NIOSH state-based Occupational Health Surveillance Clearinghouse, the NIOSH FACE website,

the NIOSH Center for Motor Vehicle Safety, and other stakeholders such as OOIDA, Women in Trucking, the National Minority Trucking Association, the National Trucker Association, the National Trucking Association, Worker's Compensation insurance agencies, and to the National Safety Council's Journey to Safety Excellence program.

Slide 26. I am happy to answer any questions you have at the end of this teleconference. And my contact information is listed here. Thank you and I'm going to turn the presentation over now to Mike.

Mike Watson: Right. Thank you very much Dr. Bunn.

Slide 27. What I'd like to do today is talk about Shell's road safety journey to Goal Zero. And before I get into that I do want to thank NIOSH for including me in this teleconference on this most important subject.

Slide number 29. Why is road safety important to Shell? Shell is a company that operates in about 70 countries today. And between about 1990 to 2008 our investigation and research in all of these countries where we operated collectively indicated our number one cause of fatal death in our company was because of road fatalities.

And this includes our own employees, which we have about 93,000 Shell staff and our contractors. We have about 500,000 contractors working for us globally. In any given day we have about another 400,000 subcontractors. So in any given day our workforce can be upwards close to a million people.

Now Shell staff and our contractors drive close to 800 million miles per year which is about 75 times a day around the world. So our number one risk factor from 1990 to about 2008 was road fatalities.

Hence our company said we need to do something about this horrible trend and epidemic. And that's when our journey changed. Now you can see from the diagram - the pictures on slide 29 obviously we're delivering products to customers. This is about 80% of our exposure.

Building new projects - these can be plants, facilities, service stations, etc. Our people in many countries - we actually provide transport to get our people to and from work safely. And lastly and most importantly, is the communities where we operate.

And these are the interfaces with community to general public where we want to minimize any impact to them and actually in many cases help them improve their own road safety.

Slide number 30. Our general theme at Shell is called Goal Zero. And this means no harm to people, no harm to the environment. Safety is always our top priority. We aim for Goal Zero which is again no incidence, no harm to people, and not putting our neighbors or facilities at risk.

Now supporting our Goal Zero journey and drive for a compliant safety culture, number one is leadership. And I'll talk a little more about that in a minute - the leadership at all levels in the organization.

We also have a very simplified set of road safety requirements that are very clear for our own people as well as our contractors to understand the lifesaving rules which I'll come to in a minute.

Now at the forefront of our road safety or our safety program in Shell is what we call the Golden Rules. Number one is comply. That means comply with legislation.

Number two is intervene. That's intervene when others - when we see unsafe actions. And number three which is respect. And that's respect for people - not only our own people but also individuals in the community.

The top right of this slide also goes over our policy and commitment statement on health safety, security, environment, and social performance. And that is extremely important. It's signed by the chief executive of our company and that really sets the tone in our culture for safety.

Slide number 31. A little bit about safety leadership. Obviously all leaders face choices and dilemmas. And most companies are always faced with the challenge of cost, safety, schedule. And which one takes precedence and how do you balance those?

Now leaders or role models - whether they choose to be or not. A leader's behavior impacts those around them and creates the culture of the organization. Leaders are judged by the things they do and say not by their intention.

Good safety means good focus, good discipline, shared vision, and professionalism of our teams and our qualities as leaders. Our chief executive has been quoted as saying poor safety is nothing more than lack of good leadership. Safety is not only our number one priority in value it's a fundamental reflection of our performance.

Slide number 32 gives you a flavor of our holistic approach to road safety at Shell. It's a very simple approach. Number one is around leadership and commitment. And this is at all levels in the organization as well as with our contractors.

Number two is around management controls. And we have a very simplified set of management controls that deal with driver behavior and what driver interventions are required.

Number two is around vehicle specifications, vehicle maintenance. Number three is around journey management - what type of journeys we go on and how those journeys are managed. And lastly is around assurance and sustainability.

Now we use the hierarchy of controls for our journey management. The first item is we attempt to eliminate the journey - not to do it at all. The second one is if the journey has to be made can we reduce it to a lower risk mode of transport. And that include marine or it could include railcar.

If it does need to be made by a vehicle then we attempt to combine journeys with other journeys. So many times we'll have contractors work together and share the load of getting materials and equipment out to our sites as well as

even carpooling, van pooling with our own employees and work force. Obviously any time a journey does need to be made we apply driver vehicle and journey controls.

Slide number 33. You heard me mention a minute ago about our lifesaving rules. Back in 2009 Shell implemented 12 lifesaving rules, four of which are related to road safety. Now we combine these rules with driver recognition and robust consequence management to bring success in road safety.

Briefly, our rules - number one is while driving do not use your phone, including hands-free and do not exceed speed limits. Number two is wear your seat belt.

Number three is follow a prescribed journey management plan which also includes fatigue management. And lastly is no alcohol or drugs while working or driving. If an employer or contractor chooses not to follow these rules they basically choose not to work for Shell.

Slide number 34. One of our key success factors in road transport. We have a global requirement that all heavy good vehicles must have in-vehicle monitoring systems or telematics. This rule has been around since 2002.

Now in-vehicle monitoring system is a great mechanism to give feedback to drivers. It's also used for training, recognition, and where appropriate consequence management.

Proper IVMS implementation helps to reduce incidents, crashes by 20–30%, reduce the speeding violations upwards of 90%. We've increased seat belt

compliance from 80–100%. And we are also able to monitor and manage driver's hours, rest breaks, and reduce chances of driver fatigue.

Now there's other business benefits of in-vehicle monitoring systems as well. And that's typically fuel consumption savings at least 5–10% as well as vehicle maintenance and vehicle utilization.

Slide number 35. Fatigue is a major issue in our investigations of all our fatal incidents. Between 1990 to 2008 we discovered fatigue was about 20% of the cause of those fatalities. So obviously this is a major emphasis and focus we put forth is on driver fatigue.

Slide 36. Just a little bit of the driver training or driver interventions that we do. Number one, we focus on driver behavior. Our incident investigation analysis indicate about 93% of the crashes that occur are a result of driver behavior. Only about 7% are vehicle or mechanical or road infrastructure issues.

Now our driver training interventions we start with actually a tool we call a Driver Behavior Indicator. This is actually a tool that helps us detect certain behaviors that drivers may have. And then we have training programs that deal with those behaviors.

We also do instructor-led driver training. This consists of classroom training, commentary drives, and then assessment drives. We also have e-learning modules.

I might mention our driver behavior program is actually focused on the Cranfield University out of the UK who is one of the leading universities on driving behavior.

We also have a Hearts and Minds or behavioral-based safety program for all of our drivers. An additional program, Elements, include driver training on fatigue, journey management, and rollover awareness.

Slide 37. A little bit more about our road safety program can be found on the Shell www site that anyone can access under road safety. We have monthly road safety tips for our heavy good vehicle truck drivers and contractors.

Since 2009, Shell has had remarkable improvement in our road safety journey to Goal Zero. We've had an 87% reduction in fatalities. We've had a 56% reduction in our crashes.

Slide number 38 is a little more information where you can contact me should you have any additional questions. With that I would like to turn the microphone back to Dr. Schieber.

Dr. Rich Schieber: And thank you very much. That was very, very good all of you. Thank you Stephanie, and thank you Terry, and thank you Mike.