TESTIMONY OF JEFF MILLER SENIOR VICE PRESIDENT, NATIONAL FOOTBALL LEAGUE BEFORE THE

SPECIAL COMMITTEE ON AGING

UNITED STATES SENATE

JUNE 25, 2014

Mr. Chairman and members of the committee,

On behalf of the National Football League, I appreciate the opportunity to offer this written testimony to the Special Committee on Aging on the topic of concussions in sports. Attached to this statement are copies of the NFL's "2012 and 2013 Player Health and Safety Report". These documents provide substantial information on the projects the NFL is pursuing to make football safer at all levels, to assist our retired players when they leave our game and to change sports culture as it relates to head injuries. Essential for the purposes of this hearing, the reports also detail the NFL's substantial scientific research investments with world class partners – including institutions represented here today – to accelerate progress on diagnosis, prognosis, treatment and prevention of brain injury. This statement will highlight some key aspects from the report.

There is nothing more important to the NFL than the health and safety of our players. Commissioner Goodell has stated repeatedly that he spends more time on the health and safety aspects of our sport than any other issue. We also appreciate that the decisions we make impact football at all levels, other sports, as well as influence our society more broadly.

There is no better example than the NFL's commitment to support research around brain injuries. Tens of millions of research dollars already at work promise to advance the understanding of the brain; millions more are being spent to compensate retired players who have cognitive injuries. These breakthroughs will benefit public health far beyond sports.

National Institutes of Health

In September of 2012, the NFL announced a \$30 million commitment to funding medical research with the Foundation for the National Institutes of Health (FNIH). The unrestricted gift is the NFL's single-largest donation to any organization in the league's history, demonstrating just how strongly the NFL believes in the pursuit of medical research into basic neuroscience.

Some areas of research to be funded by our grant include chronic traumatic encephalopathy (CTE); concussion management and treatment; and the understanding of the potential relationship between traumatic brain injury and late-life neurodegenerative disorders, especially Alzheimer's disease. All of these are topics of today's hearing.

The funding has already helped support important research projects. In December of last year, the NIH announced its first round of grants to eight institutions for the study of traumatic brain injury. In addition, the NIH announced funding for six pilot projects in sports-related concussions.

Just last month, President Obama announced the next \$16 million of our commitment to the NIH at the White House's summit on youth sports safety. The NIH will pursue a longitudinal research effort into the effects of concussions. The topic of today's hearing will be benefitted by this important work.

Apart from these initiatives, the NFL has supported research and educational efforts with a variety of private and public institutions, including the Centers for Disease Control, leading equipment manufacturers and major universities.

Head Health Initiative

In March of last year, we announced with GE the Head Health Initiative, a four-year, \$60 million collaboration to speed diagnosis and improve treatment for mild traumatic brain injury as well as find ways to better prevent against the injury.

The initiative includes a four-year, \$40 million research and development program to evaluate and develop next generation imaging technologies to improve diagnosis that would allow for targeting treatment therapy for patients with mild traumatic brain injury.

In addition to the research program, the NFL is partnering with GE and Under Armour to launch the Head Health Challenge, which has two focus areas that seek new solutions for understanding mild traumatic brain injury. The organizations pledged to find and fund ideas that accelerate solutions for brain protection. The challenge fund could invest up to \$20 million.

We received more than 400 submissions from people in 27 countries to the first innovation challenge. All of these ideas were directed toward better ways to diagnose brain injury. In January, with GE, we presented 16 winners from around the world, \$300,000 each with an opportunity to win another \$500,000 in the next year. The expert judges from the military, NIH and others believe that the 16 winners all have a realistic chance to make a difference in the diagnosis and prognosis of traumatic brain injury in a short time.

The second challenge which focused on methods for protecting the brain from injury, recently closed. This challenge was even more popular. The website received more than 40,000 visitors from more than 100 countries. In the end, inventors, entrepreneurs, academics and others submitted more than 450 ideas representing 19 different countries around the world. We are reviewing the submissions now with the intent of making awards this September.

Retired Players

Our efforts to promote sports safety and advance scientific research goes far beyond head injuries and far beyond football. The NFL works to ensure that everyone who plays the game or has played the game receives the best possible medical care. This includes the many retired NFL players pursuing different careers and interests long after they leave the playing field. We are pleased that retired players are living productive and healthy lives.

In 2012, a NIOSH study found that former NFL players are likely to live longer than men in the general population. Former players also had a lower rate of cancer-related and heart disease related deaths. For those players who do experience medical challenges, the NFL 88 Plan has distributed almost \$30 million since 2007 to former players for assistance with for dementia, ALS and other neurodegenerative diseases. In addition to the 88 Plan, we also have comprehensive disability plan; long-term care insurance; joint replacement surgery; and players

now have the opportunity to remain in the NFL medical plan post-career. All told, the NFL distributes well over \$150 million a year in pension, disability, and other post-career benefits to retired players.

In 2012, we established the NFL Life Line as a free, independent and confidential phone consultation service and website. All members of the NFL family have complete access to the Life Line and its staff of trained mental health experts 24 hours a day, every day of the year. The NFL Player Care Foundation ("PCF") provides resources for former players to take care of their mental and physical well-being. The PCF provides a free national screening program open to all former NFL players, including a series of private and confidential cardiovascular and prostate screenings, along with mental health resources and education.

Fostering a strong culture of player health, wellness and safety – that extends across all aspects of a player's life, from his football career to his family and personal growth– is a focal point for the NFL. Players are provided resources, tools and support to assist them as they move through their careers and lives, from signing with their first NFL team to having their first child to adjusting to life post-football.

On the Field

During a player's playing career, the first rule that the NFL follows in all cases is that medical decisions take precedence over competitive ones.

In recent years, we have made significant improvements to our practices and protocols to better identify and manage injuries. First, we added an athletic trainer to a skybox in every stadium for the sole purpose of quickly identifying possible injuries and relaying that information to the team medical staff. Second, the medical staff now has available the actual video of the play on which the injury occurred; they can watch that video on the sidelines almost immediately to better understand how the injury occurred. Third, with respect specifically to concussions, several special protocols are in place. Players who may have sustained a concussion are removed from the game or practice and examined by trained medical professionals. Anyone who has sustained a concussion may not return to play that game under any circumstances. A player who may be showing signs or symptoms of a concussion is taken to the locker room away from the noise and the lights of a packed stadium. There, a doctor can perform a full exam.

The sideline review is a standardized exam, consistent across all 32 teams, and is based on internationally accepted medical standards. This year, team medical personnel were aided by unaffiliated neurological consultants in making concussion diagnosis. These doctors, local concussion experts, have no relationship with a club and are there solely to offer their expertise when it is needed. We were very pleased with the program in its first year and will use it again this coming season.

If a player is diagnosed with a concussion, he may not return to play or practice until he completes a graduated protocol involving periods of rest, examination and exercise challenges, and has been cleared by his team neurological expert as well as an independent expert identified in consultation with the players association.

Players know more about concussive injuries than they have ever before. In each locker room is a fact sheet and poster designed to educate players, coaches and others at our team on concussions – what they are, what symptoms to look for, and what to do if a player suspects that he or a teammate has had a concussion. We worked closely on the poster and fact sheet with the Centers for Disease Control and Prevention. Working with the CDC and others, we have helped to design a complimentary version for all youth and high school sports, which is freely available on the CDC's website. According to the CDC, it is one of their most popular offerings and has been downloaded more than a million times.

Youth Sports Safety

In addition to the NFL's work with the CDC to educate the public about concussion injuries, we are also proud of our efforts to promote youth concussion laws in every state to make athletes in all sports safer.

The legislative effort was inspired by Zackery Lystedt's courageous story. As a 13-year old football player, Zackery suffered tragic injuries in a football game. During his recovery, Zackery became the inspiration for legislation passed in Washington State that would become a model for youth sports concussion laws passed around the country.

The NFL committed to advocating for the Lystedt law, which had then passed in six states, until every state adopted this important protection for all youth athletes. Earlier this year, the NFL achieved its goal and today all fifty states have passed laws addressing concussion in youth sports. As a result, all youth athletes are safer and parents, coaches and teachers are more aware of concussion diagnosis and treatment than ever before.

Finally, in support of USA Football's Heads Up Football program, the NFL committed \$45 million to promote Heads Up Football and make it the gold standard for youth and high school football. This program insists that every coach is certified in teaching the game correctly, in concussion and heat exposure education and in equipment fitting. More than half of all youth leagues have already signed up for Heads Up Football as it enters its second year. Hundreds of high school programs are signing up this year in the first year of the high school version of the program.

Mr. Chairman, this is a brief summary of the NFL's efforts advance scientific research and sports safety. Please consider the attached reports for further information on the NFL's efforts.

Thank you.