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Thank you. Well, good morning to you all and thank you, Dr. Arias, for that very kind introduction. Usually, when I get introduced and people go through my biography, they do make mention that I've been in prison for 11 years. And you should just see the body language of the entire audience sort of move backwards briefly. But seriously, when people talk about that portion of my professional career, it actually is an underpinning and sets the stage for my presentation to you here this morning. Because as the Assistant Bureau Director for the Federal Bureau of Prisons in the Justice Department for 11 years, I had the responsibility for not only the healthcare of federal prisoners across the country but also food services, and safety, and environmental health. And so I have a personal awareness of the importance of environmental health and the environment when we talk about the overall health of individuals.

I'd like to thank you all for being here at this very, very important National Environmental Public Health Conference. I bring you a message of gratitude and of encouragement from the U.S. Department of Health and Human Services and my bosses, Secretary Mike Leavitt, and Assistant Secretary for Health Admiral John Agwunobi,. As you know Secretary Leavitt came to us in the Department of Health and Human Services from the Environmental Protection Agency. So at the top of our department there is definitely an awareness of the importance of the environment.

He brought a new challenge for health and human services to revitalize environmental public health and to infuse environmental issues into public health planning. I think that we're gathered together here and we've gathered together the right people at the right time to meet this challenge.

I'm impressed by the leadership that has gathered for this conference. I'm impressed by the agenda. Flying here this morning I was reviewing the agenda and seeing the richness of the content not only of what you have been through but also that which you'll have opportunity to—to attend in the immediate future. I only wish that I could have joined you earlier.

Without a doubt the partnerships and the activities that result from this conference will help make a difference in protecting the health and wellbeing of all Americans. This gathering is very important to HHS and to us in the Office of the Surgeon General. We've been working tirelessly to raise awareness about environmental public health issues. You do have a spy in the midst of the Office of the Surgeon General, you understand, because the Chief of Staff of the Office of the Surgeon General is Rear Admiral Robert Williams, who came to us after several years of dedicated service to the Agency for Toxic Substances and Disease Registry, and he too is an engineer. He does not let us forget the importance of the environment and of engineers.

And as some of you may know, the Office of the Surgeon General oversees the 6,000-member Commissioned Corps of the United States Public Health Service. Our mission is to promote, to protect, and to advance the health and the safety of the nation. We're

one of the United States seven uniformed services like the Army, the Navy, the Air Force, the Marine Corps, the Coast Guard. But not many people know that there are two more services in uniform, the National Oceanic and Atmospheric Administration and the United States Public Health Service. Now remember those seven services because that information and $3.50 gets you a macchiato at Starbuck's. I said so.

But many of our officers are focused on improving environmental public health across our nation and throughout the world. Captain Craig Shepherd is our Chief Professional Officer for Environmental Health. He leads a cadre of more than 350 environmental health officers who are working on diverse issues and who are always standing ready for deployment in case of emergencies. The Corps has a long and distinguished history of advancing and maintaining environmental public health. During World War II, our officers provided environmental services for numerous federal housing projects. And today our offices protect the environment through their work here at CDC, at the Indian Health Service, at the Food and Drug Administration, ATSDR, the Environmental Protection Agency and beyond. These are not just jobs for our officers. In fact, the officers are passionate about their work and they inspire me in countless ways everyday.

Our commissioned officers also support the Office of the Surgeon General and our three overarching priorities for a healthy nation. These three priorities that we have been working on relentlessly over the past several years are prevention, public health preparedness, and eliminating health disparities. And environmental health is one of the central tenants of prevention.

Everyone in this room knows that there are many factors that impact our health: genetics, our personal choices, and our environment. All three of these are intertwined. And when our environment is not healthy and safe, our bodies and our minds are not either. A healthy indoor environment is a key to good health. And yet when Americans think of environmental health concerns many people think of the outdoor environment. They often think of global warming. This is probably because global warming is important but it also gets a lot of media attention. And Americans often think of their homes as safe havens, a place where a family can gather, a place where they can rest, a place where they are safe. In fact, we Americans spend between 85 and 95 percent of our time indoors. But as we all know, there is a need to create greater awareness about the dangers that lurk within. So while we need to be cognizant and concerned about our outdoor environment—including pollutions and smog—we must put at least equal emphasis on the long-overlooked issue of safeguarding our indoor environment.

In just the past 25 years, the percentage of health evaluations of the National Institutes for Occupational Health rose from ½% of all evaluations in 1978 to 52% of all evaluations since 1990. This means that in those years, the evaluations related to air quality concerns have increased from 1 out of every 200 evaluations to 1 out of every 2.

Disparities in housing quality can affect disparities in health; 1.2 million low-income family homes with children younger than age 6 have lead paint hazards. These children

are at greatest risk for lead poisoning. And we also know that many of our nation's most vulnerable low-income children are exposed to more than one allergen in their homes. Unhealthy indoor environments can impact anyone's health, and our children are especially vulnerable. Asthma accounts for 14 million missed school days each year. The rate of asthma in young children has increased by 160% in the last 15 years. And today, one out of every 13 school-aged children has asthma. Childhood lead poisoning, injuries, respiratory diseases, and quality of life issues all have been linked to inadequate, poorly maintained and substandard housing.

But unhealthy indoor environments are not limited to older homes. New building materials and construction practices are being introduced with little understanding of their impact on the indoor environment and the health of the occupants. Building practices often change faster than scientists are able to evaluate their potential health impacts. We need stronger partnerships between scientists, environmental public health specialists, and builders. And just as there is a growing trend towards green buildings, we need to create a trend of green, healthy homes.

The Office of the Surgeon General is very concerned about these challenges. This is why last year we gathered leading environmental health experts for the first-ever Surgeon General's Workshop on a Healthy Indoor Environment. And I understand that in your registration bags each of you has received a copy of the proceedings of that workshop.

We rolled up our sleeves and tackled some very, very difficult issues. We identified and called out the scientific data related to indoor environments. And when we did that, we discovered that there were a lot of holes and knowledge gaps. So we gathered information about the contributing factors as well as potential solutions to health concerns related to the indoor environment. We reviewed the progress we have made in understanding secondhand smoke, lead, radon, and asbestos as threats to the indoor environment.

And perhaps most importantly, we began building collaborations around the common goal of improving our indoor environments. We all know that the relationship between the indoor environment and health is very complex. It encompasses a broad range of chemical, physical, and biological agents, and interactive factors as well as individual accessibilities. We also know that data are lacking on dose-effect relationships for many known toxic indoor agents and the interplay of genetic and other risk factors. The scientific evidence demonstrates a link between specific housing conditions and health. That evidence is compelling enough to put what we know into action to help protect the health of the American people. This Surgeon General's Workshop on Healthy Indoor Environment crystallized, focused, and provided a strong foundation for our HHS Environmental Public Health efforts in our partnerships, and it continues to guide our framework for action.

One of the key action items we are working on is the need to increase health literacy about healthy indoor environments. Health literacy is the ability of an individual to

access, to understand, and to use health-related information and services to make appropriate health decisions. Putting it slightly differently, it's important for us who have the information, who are the professionals, to communicate to the general public —to those whom we serve in such a way that they can hear, they can understand, they can embrace, and then they ultimately can put into action the information that we share with them, for them to make healthy choices for their own health and wellbeing.

Many of us have been working in the field of public health and environmental health for decades. We have a sense of urgency. We know the need is great. But for the public at large, indoor environment issues are not widely recognized or understood. In that sense and in many others related to the indoor environment, our society as a whole is health-illiterate. We need to turn this problem around. And with the expertise in this room and beyond I know that we can succeed. Our first step must be to make healthy choices the easy choices, because today, right now, more than 90 million Americans don't know how to take care of their own health or how to prevent disease. Low health literacy is a threat to the health and wellbeing of Americans. And low health literacy crosses all sectors of our society. All ages, races, incomes, and education levels are challenged by low health literacy. Try it yourself sometimes. Put yourself in the position of being a client or a consumer and see how easy it is to truly understand the messages that professionals are providing to us to make healthy choices.

When it comes to improving environmental public health, I'm convinced that improving health literacy is critical to our success. The more people know about what defines a healthy home and what is a health hazard, the better they can take care of themselves, their friends, their families, and their communities. Ileana in her introductory comments showed some graphics that go beyond that which we think of initially in terms of the environment. It's not only the physical environment. It's the social environment. It's the mental environment. And when we talk about health, it is not only health of body. It is health of mind and health of spirit. These interplay so much.

Everyday, researchers and health professionals are witnessing this health literacy gap—the chasm of knowledge between what professionals know and what people understand. We have to make sure that good health information is getting into the hands of the people who need it. For researchers, for practitioners, for the public we still have — we all have a very important role to play. We have tremendous influence on the health messages that professionals as well as consumers receive. And we must communicate these messages effectively so that the people we serve can put the concepts into action.

But the challenge is getting that science into the hands of the American people in ways that they can understand and use. Not every American is a scientist; so it's our job to help all Americans put the best health research into practice at home, and at work, and as part of daily life. We also need to improve the health literacy of the builder, the maintenance staff, the architect, the city planner. Very broad outreach is needed. And that's why I have been working together with colleagues throughout the nation to improve America's health literacy. I strongly believe that by improving health literacy we

can save lives. And I'm here to ask for your continued support to improve health literacy.

With regard to the environment and healthy environment, the issues are clear, and the need is great. The time is now if we will have an impact on our current and our future generations for healthy indoor environments. That's the reason I and the Office of the Surgeon General are teaming up with Dr. Henry Falk of the Coordinating Center for Environmental Health and Injury Prevention and the Centers for Disease Control and Prevention to begin work on this document for the American people for improving the health and safeguarding the health of our nation. This is targeted to be a Surgeon General's call to action on a healthy indoor environment. This document, which we anticipate taking about a year to prepare and release, will help us link the importance of a healthy indoor environment with our priorities of prevention, public health preparedness, and the elimination of health disparities. It will help inform the American people of the science, the evidence, and the data to help improve our health literacy about this issue. And it will call the American people to action based upon this science evidence and data. Once again, the issues are clear. The need is great. The time is now.

In closing, together we can and must shape a new vision for environmental public health. When you leave this conference today, please keep the contacts that you have made. Please share ideas and continue to make a difference. Connect the dots for a more informed picture of the issue and a clearer path forward, and form partnerships. It is the responsibility of leaders like us to map out a course of action and to involve others in achieving it. I believe that that's why you all are here today. Please continue to think imaginatively and critically. Keep educating, innovating, collaborating. Keep asking the right questions—those that need to be answered, not just those that can be answered easily. Our success in asking and answering the right questions will be measured in the health of the entire nation. I think of no greater challenge and no more noble pursuit in our time.

Winston Churchill once said we shape our buildings and in time our buildings shape us. Think about that. We must work to ensure that we shape our buildings to provide a safe haven, a safe and healthy haven, a healthy place to live, to work and play. And in turn, our buildings will keep us safe and healthy. I look forward to working with your all during this conference and beyond. And I want to thank you for your continuing work and for your commitment to protecting, promoting, and improving the health of all Americans.

Thank you all. Thank you.

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