

Dr. Li's Constituency Briefing Remarks:

- I am pleased to see so many of you here today. It is a good indication of our common concern about underage drinking. I see many familiar faces in the audience.
- This first ever Surgeon General's Call to Action to Prevent and Reduce Underage Drinking is an important milestone for all of us.
- NIAAA is proud to have worked with SAMHSA and the Office of the Surgeon General in producing it.
- Our role has been and continues to be the provider of the scientific foundation for understanding and addressing underage drinking. We have integrated knowledge from many disciplines of research to inform this Call to Action.
- As Dr. Moritsugu highlighted, underage drinking is a serious public health and safety problem because of the number of children and adolescents who drink, the pattern in which they drink, and the negative consequences that result from drinking.

- I want to emphasize that the problem of underage drinking is not ours alone. In developed and developing countries all over the world, large numbers of young people are drinking, many of them heavily. In fact, other nations are looking to us for strategies to combat the problem.

- It is important to point out that not all young people drink; however, underage drinking can have consequences even for those who don't. Second-hand effects include sexual assault, violence and traffic crashes. In addition, it is more difficult for a young person to be a non-drinker in a culture that views underage drinking as a rite-of-passage and as being central to social activities.

- Underage drinking is not a monolithic phenomenon. There is significant variation in the age that individuals begin to drink, how much and how often they drink and in their physiological and pharmacological responses to alcohol. Drinking trajectories differ as individuals move from initiation to more frequent drinking to patterns of heavy drinking, as do pathways away from harmful drinking. We must, therefore, understand the biological, ethnic, and cultural influences underlying these individual differences in order to identify factors that promote risk and confer resilience.

- Adolescence is a period of dramatic maturational changes. These include many biological and behavioral changes, such as physical and sexual development. With regard to alcohol use, the differential maturation of specific regions of the brain, and the accompanying psychological and social changes, such as increased independence and risk-taking, are particularly important.
- It is now recognized that brain development continues through adolescence into early adulthood. There are changes in the brain's structure, neuronal connectivity, and physiology. But this development is not uniform across the brain which may make some regions and processes more vulnerable to alcohol exposure than others. For example, the frontal cortex which is involved in decision-making and self-regulation is slower to mature and continues to do so into a person's twenties.
- Accordingly, it is critical to understand the full impact of alcohol exposure on brain functioning during and after adolescence. Ongoing research in human subjects as well as animal models indicates that adolescent alcohol use can be associated with neurocognitive deficits, and have implications for psychosocial development that may continue to affect the individual into adulthood.

- Research supported by NIAAA has already shown that early alcohol use is associated with a higher prevalence of future alcohol dependence. Data also show that the highest prevalence of alcohol dependence is in 18-20 year olds. These findings underscore the need to understand how early alcohol use affects the wiring and function of the human brain and why it is so important to adopt a developmental perspective as we continue to assess the immediate and future effects of underage drinking.
- In addition, this approach will help us to understand why alcohol has such a strong appeal to many youth.
- Underage drinking is a complex phenomenon driven by individual factors including genetics, comorbidity, and family history; all kinds of environmental factors, such as peer relationships; and developmental factors.
- We continue to probe how the interplay of these various factors influences why alcohol has such a strong appeal to some youth, why some drink much more than others, and why some continue to drink despite negative consequences.
- This understanding is integral to our ability to more effectively prevent and reduce underage drinking.

- For example, intriguing findings from animal studies may help us understand binge drinking by human adolescents. These studies show that adolescent animals respond differently than adult animals both to the stimulating and sedating effects of alcohol.
- We are also focusing research efforts on young people who are at high risk. Emerging findings on the relationship of individual differences in response to alcohol and patterns of consumption look promising.
- In closing, I want to reiterate what an important step we have taken today. Dr. Moritsugu has outlined a role for each of us. For our part, we will continue to support the research that will move us forward.
- Finally, I'd like to acknowledge all those who have contributed to the writing and review of this document. In particular, I'd like to acknowledge Vivian Faden and Patricia Powell from NIAAA and Stephen Wing from SAMHSA, who worked tirelessly as the Editors of the Report.
- Thank you so much.