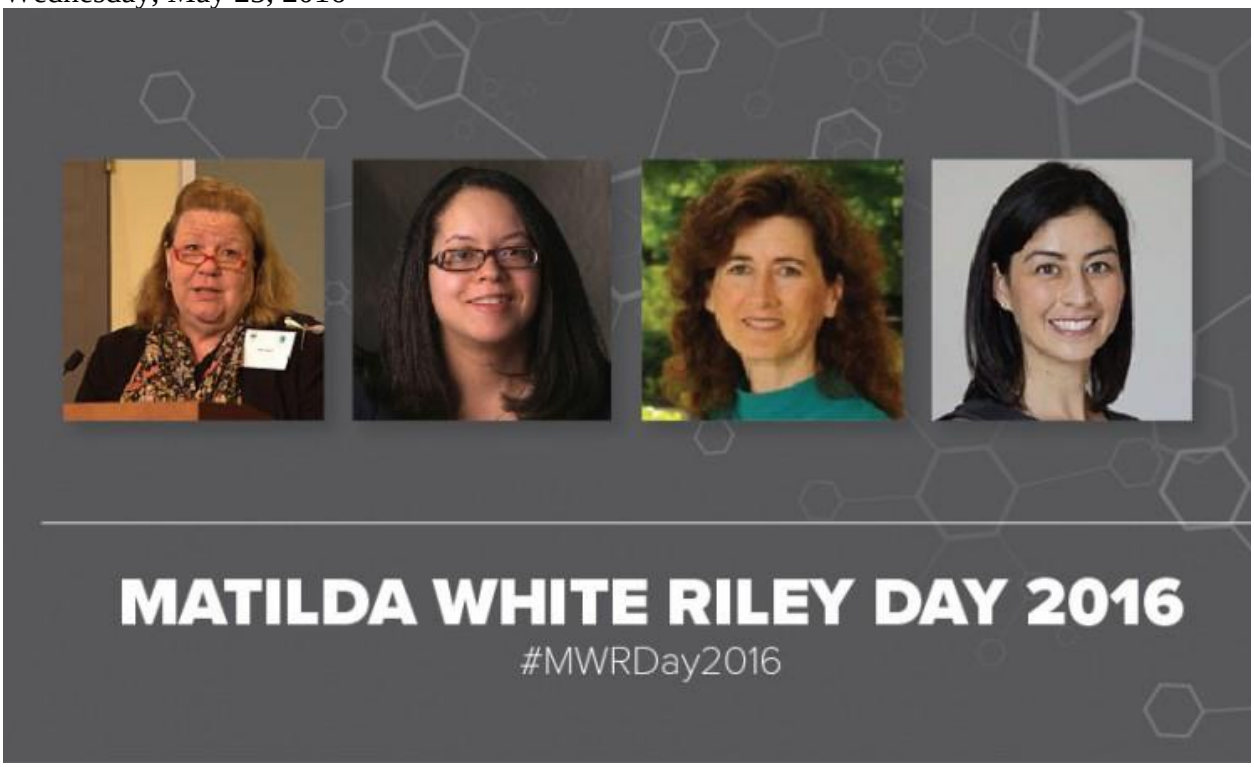
Women in Science: Tales and Trajectories Panel Will Honor Matilda White Riley's Legacy of Learning, Discerning and Digging Deeper

Wednesday, May 25, 2016



By Wendy Anson, Ph.D.

The 2016 Matilda White Riley Day will feature a distinguished panel of women whose research in the behavioral sciences and public health epitomize Matilda White Riley's spirit of integrating behavioral and biological aspects of health and disease.

In 1979 at the age of 68, Dr. Matilda White Riley began a 20-year career at the NIH in which she pioneered a vision of integrating a biopsychosocial understanding of health and disease within NIH's biological and biomedical sciences approach. Emphasizing the influence of social structures on the lives of individuals, she went on to establish an NIH grant program around social and behavioral research. From applying sophisticated sampling and survey techniques gleaned from her early sociological training, to publishing a program announcement that put "effective functioning" on an even par with the prevailing disease model *weltanschauung*, to

chairing the far-reaching, NIH-wide Working group on health and behavior, Dr. White Riley spearheaded fresh perspectives on health and disease.

The three outstanding panelists lined up for the *Women in Science: Tales and Trajectories* panel of the 9th Matilda White Riley Behavioral and Social Sciences Day reflect Dr. White Riley's encompassing perspective and contribute to further her vision.

Perceived Risk Is Shaped by Both Actual Hazard and Outrage

What's the best way to explain complicated ideas to the public? What happens when public perception and understanding are at odds with scientific evidence? Is cognitive function the only consideration in understanding? Research shows that both cognitive and emotional factors influence an understanding of scientific concepts.

"I was originally intrigued by how you explain difficult science concepts to people," said Katherine Rowan, Ph.D., Professor of Communications at George Mason University.

A review of the educational psychology, communications, and instructional literature showed Dr. Rowan that when we're trying to understand why people may not understand complex ideas, we need to consider the emotional as well as the cognitive side of things.

"In 2014 the Ebola disease galvanized our attention and frightened us," points out Dr. Rowan, who is also a Member of the George Mason Center for Health and Risk Communication. But she adds, "There were only two total U.S. Ebola deaths. Compare that to numbers of pedestrian deaths from auto accidents in the same year."

Dr. Katherine Rowan demos #biobehavioral legacy of living and learning #MWRDay2016

"People focus more on how upsetting a risk seems to them than on how dangerous it really is," says Dr. Rowan. "'Risk equals hazard plus outrage,' as Peter Sandman famously pronounced in 1993."

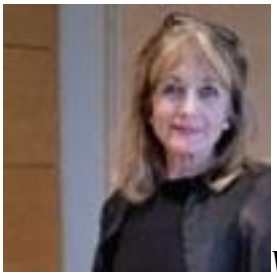
Examples of discrepancies in attitudes and perceptions regarding “hard data” seem to exist all around us.

“When we look at recent trend data, we see, for example, the suicide rate going upwards for middle-aged white women in medically underserved areas. This data may run counter to common perceptions,” Dr. Rowan pointed out. “In cases like these we need to engage that cortex and think about what we can do on regional levels, the chambers of commerce, getting money to enhance lives for groups of people who lack opportunity.”

Dr. Rowan writes about effective methods for earning trust and explaining complex science. She also talks to organizations like the National Academy of Sciences and the US Environmental Protection Agency about risk and science communication.

health IT, and health literacy.

About the Author

 *Wendy Anson, Ph.D.*

Wendy Anson, Ph.D., is senior science writer/editor for the OBSSR at NIH. She has written and developed literature reviews, book chapters, reports, grant sections, curriculum and award-winning educational films in the science and social science arena for medical schools, research hospitals, educational broadcasting organizations and universities. Her Ph.D. is in educational psychology and technology.