**Integrating Communication Science into the One Health Framework: Accelerating Human Vaccine Uptake through Evidence-Based Communication Strategies**

Victoria Ledford, Doctoral Candidatea

Xiaoli Nan, Professora

aDepartment of Communication, University of Maryland, College Park

Contact information for corresponding author:

Victoria Ledford, Department of Communication, 2130 Skinner Building, University of Maryland, College Park, MD 20742. Email: [vledford@umd.edu](mailto:vledford@umd.edu)

Biographical notes for each author:

Victoria Ledford is a Doctoral Candidate of Communication Science at the University of Maryland, College Park and a member of the Center for Health and Risk Communication. She also serves as a Director of K-12 Research and Professional Services at Hanover Research.

Dr. Xiaoli Nan is a Distinguished Scholar-Teacher and Professor of Communication Science at the University of Maryland, College Park, where she is the Director of the Center for Health and Risk Communication. She is also an affiliate professor in the Department of Behavioral and Community Health, a faculty associate of the Joint Institute for Food Safety and Applied Nutrition, and a full member of the Marlene and Stewart Greenebaum Comprehensive Cancer Center’s Population Science Program.

**Abstract**

Effective public health messages about vaccination can bolster human vaccine uptake to prevent the spread of infectious diseases. Despite this potentiality, the One Health framework that values an interdependent approach to health has not fully considered the role of communication science in promoting public health. In this article, we offer evidence-based recommendations for health practitioners and researchers creating vaccine promotion messages. An interdisciplinary field, communication science suggests that vaccine messages can change beliefs, attitudes, and behaviors through a systematic understanding of one’s audience and targeted and tailored health messages that appeal to beliefs about the outcomes of a behavior and beliefs about an individual’s behavioral efficacy. Implications for and challenges to vaccine communication are discussed.

*Keywords*: vaccine, communication science, persuasion, public health, behavior change