

1154-VF-1971 **Timothy D. Comar*** (tcomar@ben.edu) and **Stefano Chiaradonna**. *Age-Structured Models for HPV Vaccination: A Student Research Experience*.

This presentation will explore a long-term student research project that developed and analyzed age-structured vaccination models for Human Papilloma Virus (HPV). One of the models used impulsive differential equations, and the used an agent-based model. These models are used to investigate the consequences of a sufficient fraction of the population not completing the vaccination regimen. Specifically, we will describe and compare these models and the conclusions one can draw from these models. We will also discuss the challenges and benefits for student researchers of approaching this complex problem via these two modeling paradigms. (Received September 16, 2019)