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Towards Optimizing Vaccine Uptake Through Tailored Communication Strategies

In this talk, I will explore how decision-making strategies influence vaccine uptake, focusing on two key groups: evidence-based decision-makers, who prioritize immediate personal benefits, and social-based decision-makers, who rely on the experiences and behaviors of others. The proportions of these two types within a population are critical in determining vaccine uptake, a well-established theoretical insight. I will demonstrate that these proportions are both theoretically identifiable and practically estimable. By presenting fitting results from jurisdictions across the USA and Canada, I will show that these proportions can vary significantly. These findings pave the way for developing tailored communication strategies to influence each group's decisions, ultimately optimizing public health efforts and enhancing vaccine promotion effectiveness.