1135-91-2798 **Winfried Just**, **David Gerberry** and **Ying Xin*** (`yx123812@ohio.edu`). *Should I get a flu shot? How well did this go last year?* Preliminary report.

The problem of how to induce people to make vaccination decisions that would be optimal from the point of view of the population has been widely studied over the last decade. When vaccination carries real or perceived costs, individual rational choices in the so-called vaccination game are known to lead to Nash equilibria that are suboptimal at the population level. In reality, the underlying assumption of perfect rationality is unrealistic; actual decision-making is more likely based on a mixture of rational calculations of (mis)perceived costs, imitation, and individual prior experience. We discuss existing models of these decision-making procedures for flu vaccination and present a model for studying vaccination strategies that are based exclusively on the host's most recent experience, but are not necessarily rational or deterministic. The model is then used as a tool for elucidating the role of behavior based on individual experience first in isolation and then in combination with decision procedures that incorporate additional information. (Received September 26, 2017)