CIRANO Knowledge into action

COORDINATION, COMMON KNOWLEDGE AND AN H1N1 OUTBREAK

CIRANO note based on a report by Jim Engle-Warnick, Sonia Laszlo, Natalia Mishigina et Erin Strumpf, June 2013

Social norms are rules of behavior that coordinate interactions between people (Young, 2007). Social norms increase efficiency, largely by reducing transaction costs when the structure of the decision-making environment contains multiple equilibria. Measuring responses of common beliefs to an actual coordination device would take a step further in understanding norms and coordination.

We experimentally measure the ability of subjects to coordinate on issues related to the H1N1 influenza virus before and after an outbreak. Our instrument consists of an H1N1 survey converted into a coordination game. In our experiment, we pose a question about the H1N1 virus and give five possible responses, while providing an incentive for the subjects to match their selected response. Thus, each of the five possible responses is a strategy with a label that has some bearing on knowledge about the virus. We measure the extent to which these labels are focal. We first provided a group of subjects with an H1N1 questionnaire, asking them for all of the answers to the questions they could think of. Using these responses to generate coordination games, we then provided a second group of subjects with the H1N1 questionnaire before and after a major outbreak in a large metropolitan area.

Our study is important because it measures the degree to which an affected population responds to both experience and public announcements on a matter of significant importance to public health. Our study is unique because it measures the degree to which people become more or less coordinated after being exposed to a social coordinating device.

We found that, contrary to the original design of the health survey, subjects found the vaccine to be the most salient label about prevention after the outbreak. This is in spite of the fact that other highly-publicized measures such as coughing onto one's sleeve or washing one's hands are simpler, accessible to everyone, and require no extra effort to do. Given the 21 benefits of vaccination, this result should be of particular interest to public health authorities.

We found that subjects coordinated better after the outbreak on correct responses to the expected side effects of the vaccine. Finally, we found that subjects better coordinated on prevention methods that carry a public rather than private benefit after the outbreak, even though the overall degree of coordination for this question has not changed.

More generally we provided the first test of the focality of strategy labels in response to a naturally occurring field coordinating device.

We show that the degree of coordination on beliefs about (1) H1N1 prevention, (2) H1N1 vaccine side effects, and (3) actions to take if sick all increase after the outbreak. More generally we provide the first test of coordination on meaningful strategy labels in response to a naturally occurring field coordination device. Our results provide a unique insight into the responses of beliefs to a major health event.

The full study is available on CIRANO's Website at: http://www.cirano.qc.ca/pdf/publication/2013s-10.pdf