## Cartel Formation and Social Interactions: A Flu Shot Cartel in Japan

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## **Abstract**

The purpose of this paper is to investigate the economic norm in medical institutions for the flu shot by analyzing what causes each hospital to participate in the price-fixing cartel implemented by the local medical association in Japan. Some causes are examined from a view point of hospital attribution, local demand condition, social interactions, and spatial competition. In particular, in term of social interactions, we find that each hospital depends on the average behavior of other hospitals in the group. The degree of social interaction relies on the difference in type of group such as the neighboring area and the same medical family. Each social interaction effect estimated implies both strategic substitute and strategic complement, and these lead the economic norm among hospitals to hold the pro-competitive or anti-competitive environment. Also, this cartel included the distance restraints against a new entry. However, the distance between an incumbent hospital and a new entry implements lowers the probability that an existing hospital pools. Therefore, this result implies two illegal activities implemented by the local medical association are incompatible.

JEL Classifications: C35, I11, I12, K21, L89

*Keywords*: Cartel Formation, Flu Shot Cartel, Economic Norm, Social Interactions, Strategic Complement, Strategic Substitute, Social Multiplier

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