Information on pharmaceutical product quality and physician adoption

Katharina Elisabeth Fischer*[a,b], Kay Peters[a,c] and Tom Stargardt[a]

[a] CINCH Health Economics Research Center and Faculty of Business Administration and Economics, University of Duisburg-Essen, Germany

[b] Hamburg Center for Health Economics, Universität Hamburg, Germany

[c] Lehrstuhl Dialogmarketing, Universität Hamburg, Germany

We analyze how product quality of pharmaceuticals influences the adoption behavior of physicians. We use the appraisal decision of a health technology assessment agency (the German Federal Joint Committee (FJC) in this case) as measure of product quality. The agency's action may be separated into an information effect (i.e., the decision whether the pharmaceuticals has an added health benefit) and a communication effect (i.e., the timing of the announcement of the decision relative to the physician's adoption decision). To investigate variation in adoption, time to first prescription is the dependent variable in accelerated failure time regression models. We use a panel of 2,293 physicians to observe adoption decisions. We included 23 substances for which the FJC has made decisions between 2011 and 2014. We control for the number of side effects, price, marketing, the body of evidence, physician experience, physician characteristics and region. Our results suggest that physicians adopt pharmaceuticals significantly faster that show an added health benefit compared to those where no added health benefit is demonstrated. We conclude that product quality has a strong impact on adoption in early stages of the product life cycle. In pharmaceutical markets, health technology assessment agencies act as an additional change agent that influence adoption decisions by their communication in disclosing product quality.