Pre-Registration in COVID-19 Vaccination: The Case of Saarland

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Abstract

Purpose: This study examines which vaccination organization system performed best in the COVID-19 pandemic to improve future vaccination organization. **Study design**: The vaccination organization of every federal state is categorized as decentralized or centralized and analysed based on their daily vaccination rates and the vaccination time series of the federal state with the highest vaccination rate is analysed by using the Event Study Methodology [ESM]. **Findings**: In Germany's federal state with the highest vaccination rate (i.e., Saarland), the change from a system of availability-based offerings to a pre-registration with preferences and automatic appointment allocation system was a significant performance factor. **Originality:** A quasi-experimental study with a different vaccination organization is setup and the Event Study Methodology [ESM] is applied to the vaccination context. **Research limitations:** This study is limited on the vaccination organization of high-developped countries with a comprehensive health system such as Germany. **Practical implications**: A pre-registration and automatic appointment allocation system is recommended as best practice to policy makers and pandemic managers for their vaccination organization given the first half-year experience in the COVID-19 pandemic. **Social implications**: A cumulative additional vaccination rate of 8.44 per 100 inhabitants and an 14% overperformance is found. The implementation of this system for whole Germany would have resulted in 4% higher protection, estimated 26'596 less infections, US\$ 7 million less hospitalization costs, and earlier relaxation of lockdown of two months.

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