Self-reported vaccination against SARS-CoV-2 in multiple cohorts

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The SARS-CoV-2 pandemic is especially threatening to high-risk populations; therefore, those have been prioritized for vaccination in the first phase of the vaccination campaign. In two studies ("Intensified infections module of RESIST - Resolving Infection Susceptibility" and "DIMI - Digital infection monitoring in persons living with immunodeficiency"), we monitor different health related items, including vaccination against SARS-CoV-2 as well as conducting a general syndromic surveillance of acute respiratory infections in high-risk populations, namely elderly persons and persons living with HIV, respectively. In a third study ("SMARAGD – Sensors for measuring aerosols and reactive gases to deduce health effects") mainly healthy adults participate.

For the recording of incident or recurring transient health events, risk factors and further health data, we developed the eResearch system "PIA - Prospective Monitoring and Management App" as a tool that is easy to use and flexible to adapt to different research questions. Recruitment for RESIST, SMARAGD and DIMI started in March 2021 (recruitment ongoing).

In the preliminary analysis, we included 102 participants from RESIST (49% male, median age: 72; min.-max.: 23-87), 46 from DIMI (76% male, median age: 53; min.-max.: 30-73), and 67 from SMARAGD (70% male, median age: 51; min.-max.: 30-78). In RESIST, 58/74 persons stated to be vaccinated at least once until end of November 2021 (52 persons with the 2nd dose), in DIMI 25/40 persons (18 with 2nd dose), and in SMARAGD 31/31 persons (12 with the 2nd dose). We found no statistically significant associations with age or sex. Main reason for vaccination was being afraid of getting infected with the virus (n=40).

Although the main study populations belong to the prioritized risk groups in the SARS-CoV-2 pandemic, 78% (RESIST) and only 54% (DIMI) indicated to have already received the vaccination until November 2021, in contrast to the mainly healthy, rather young population of SMARAGD, where 100% of those who reported on their vaccination status received the vaccination.

However, the results are limited by the rather small sample size in the cohorts as well as the possible bias through self-reporting regarding vaccination status.