## Platform Presentations Scientific Presentation - HSR (Health Service Research)

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## SOCIO-DEMOGRAPHIC ASSOCIATIONS OF COVID ANTIBODY IN MULTI-ETHNIC HEALTHCARE WORKERS

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**Introduction:** Healthcare workers are particularly susceptible to developing COVID-19 owing to close and frequent contact with COVID-19 patients. This study aimed to describe prevalence of SARS-COV-2 antibodies amongst healthcare workers within a hospital trust and examine factors associated with increased prevalence of this antibody.

**Methods:** Data was obtained over a 4-week period in 2020 from a cross-sectional prospective survey of healthcare workers serving a multi-ethnic inner-city population who had IgG

SARS-COV-2 antibody. Multiple, overlapping sources of notification were implemented to promote the availability of the test. Anonymised socio-demographic data about staff members were cross referenced with data of the antibody tests.

Results: Of 7,013,6,212 (89%) staff undertook the antibody test during the study period. The overall detection rate of IgG SARS COV-2 antibody was 26%(1584/6212). Univariate analyses reveal that there were no differences in the prevalence rates in terms of gender or age. Compared to white staff members (18%), prevalence of the antibody was significantly greater in Black(38%) and Asian(27%) staff members. The combined prevalence for all BAME staff members was 32%. The prevalence rates of staff in general wards (43%) were significantly higher other areas of the trust. For staff in emergency medicine, intensive care and anaesthetics, prevalence was 23%, whereas for other clinical teams it was 21%. In terms of professional groups, prevalence rates were highest amongst nursing and allied clinical services (28%), followed by doctors (23%), whereas, it was lower for non-clinical staff(19%).

**Discussion:** This large multi-ethnic hospital-based study has described the prevalence of recent exposure to SARS-COV-2 infection amongst healthcare workers and determined socio-demographic associations of this prevalence including ethnicity, professional healthcare groups, and geographical areas of work in healthcare settings. The study provides information that may be useful in future COVID studies examining the role of antibody testing both in general populations as well as in healthcare settings.