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Sero-prevalence of SARS-CoV-2 among truck drivers in Kenya

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Key messages and recommendations

- This analysis is based on a sample of 830 truck drivers from Kilifi County (Magarini Sub-County) and Busia County (Busia One Stop Border Post & Malaba One Stop Border Post).
- By late October 2020, approximately **4 in 10 truck drivers had evidence of prior SARS-CoV-2 infection.** This estimate is higher than average seroprevalence among healthcare workers and blood donors, suggesting higher exposure to SARS-CoV-2 among truck drivers.
- These findings underscore the need to provide **ongoing support for COVID-19 prevention measures** – such as provision of face masks, sanitizers and handwashing stations – for truck drivers as well as continued, **targeted public health messaging** for this essential worker group.
- Furthermore, the findings may inform prioritization of non-healthcare frontline workers for future interventions such as COVID-19 vaccines.
- This study was not designed to estimate the contribution of truck drivers to SARS-CoV-2 transmission in Kenya.
- The findings are not generalizable to the general population, but contribute to the understanding of SARS-CoV-2 exposure among non-healthcare frontline workers.

Background

Truck drivers continue to play a vital role in transporting essential goods during the COVID-19 pandemic. Yet, the nature of their occupation entails in-person interaction with diverse groups of individuals placing them at risk for SARS-CoV-2 infection, and entails long distance travel making them a high risk group for spatial transmission of SARS-CoV-2. SARS-CoV-2 serosurveillance among truck drivers can generate estimates of SARS-CoV-2 in this essential worker group and inform our understanding of exposure among other non-healthcare frontline workers.

We conducted a SARS-CoV-2 serosurvey among truck drivers in Kenya between September 30 and October 23, 2020 based on a sample of 830 truck drivers from Kilifi County (Magarini Sub-County) and Busia County (Busia One Stop Border Post and Malaba One Stop Border Post).

Samples were analysed using an antibody test based on protocols developed by collaborators in the USA[1]. Sensitivity of the assay was 93% (95% CI 87.9-96.1%) and specificity was 99·0% (95% CI 98·1-99·5%).

Key findings

- By late October 2020, approximately 40% of truck drivers had SARS-CoV-2 antibodies (Table 1).
- SARS-CoV-2 antibody prevalence was higher among truck drivers sampled at Busia One Stop Border Post (OSBP; 45% [95% CI 40-50]) compared to those sampled at Malaba OSBP (34% [29-39]).
- SARS-CoV-2 antibody prevalence was not significantly different by age or nationality.
- SARS-CoV-2 antibody prevalence among truck drivers is similar to that among healthcare workers at Kenyatta National Hospital by late August 2020, but higher compared to exposure among healthcare workers in other, less urban settings and among blood donors (reported separately).
- Given a lack of data on truck driver characteristics at the national level, it is not clear to what extent the drivers included are representative of truckers in general.
- These findings are not generalizable to the general population.

[1]F. Amanat et al., A serological assay to detect SARS-CoV-2 seroconversion in humans. Nature Medicine, (2020)

Table 1. Proportion of truck drivers with anti-SARS-CoV-2 IgG, by select characteristics and overall. Truck drivers were sampled between September 30 and October 23, 2020.

Characteristic	N	Positive for anti-SARS-CoV-2 IgG	Percent seroprevalence	95% CI
Total	**830**	**329**	**39.6**	**36.3 - 43.1**
Age				
<30y	92	42	45.7	35.2 - 56.4
30-39y	276	110	39.9	34.0 - 45.9
40-49y	286	116	40.6	34.8 - 46.5
50-59y	135	48	35.6	27.5 - 44.2
>60y	38	13	34.2	19.6 - 51.4
Nationality				
Kenya	668	262	39.2	35.5 - 43.0
Other	162	67	41.4	33.7 - 49.4
Site				
Busia OSBP	365	163	44.7	39.5 - 49.9
Magarini, Kilifi	101	43	42.6	32.8 - 52.8
Malaba OSBP	364	123	33.8	28.9 - 38.9

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