



## High-Risk Exposures among Truck Drivers Testing Positive for Covid-19 at Uganda Borders: A Qualitative Study-2020

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### Introduction

On January 30, 2020, the World Health Organization (WHO) declared COVID-19 a public health emergency of international concern (1). Uganda reported its first case of COVID-19 on March 21 (2), the outbreak proceeded in stages, initially comprising incoming travelers and their contacts before cases declined in early April. The successive case resurgence primarily involved truck drivers, and by May 8th truck drivers constituted more than half of Uganda's cases.

As of May 2020, Uganda had 43 border districts sharing with the neighbouring countries. Other than South Sudan, these neighbouring countries had reported more COVID-19 cases than Uganda. It became clear that interventions were needed to target and protect truck drivers from Uganda and neighbouring countries from COVID-19. We investigated potential exposures of truck drivers to COVID-19 and recommended immediate interventions to the Uganda Ministry of Health (MOH).

### Methods

For this investigation, a case was laboratory-confirmed SARS-CoV-2 infection during May 13–June 4, 2020, in a commercial truck driver. We conducted 28 in-depth interviews with truck drivers who were diagnosed and being treated with COVID-19 at four COVID-19 isolation and treatment units with large volumes that included Entebbe RRH (10), Lira RRH (9), Gulu RRH (6) and Arua RRH (3). The respondents had entered Uganda from South Sudan via Elegu POE (25), Kenya via Malaba POE(2), and Tanzania via Mutukula POE(1).



We initiated in-person in-depth interviews in the isolation and treatment units with full Personal Protection Equipment (PPE). The truck driver cases were sorted by date of isolation into the treatment unit with the most newly-diagnosed cases prioritized for interview. The Uganda National Drivers' Association called the case-patients to explain the approach when the investigation team arrived. All the case-persons interviewed were either asymptomatic or had mild disease. We summarized qualitative data into pre-determined categories and analyzed the data by thematic content.

## Results

### COVID-19 awareness and prevention

All 28 interviewed truck drivers reported being aware of COVID-19 since the outbreak started in December 2019 in China. They learned about COVID-19 through televisions, radios, newspapers, friends, and fellow truck drivers. All reported concern about getting infected with COVID-19. They reported always wearing locally-manufactured face masks; however, they mentioned the lack of widespread mask use at seclusion places and POEs. They reported usually using hand sanitizer and washing hands with water and soap. They noted some colleagues did not employ prevention measures, and some noted that people in South Sudan were aware of COVID-19 but not concerned about getting infected:

“I was concerned about getting COVID-19, although I was aware of the disease and the preventive measures such as hand washing, use of face masks and hand sanitizers. I heard about COVID-19 ever since the beginning of the outbreak from radios, televisions, colleagues, newspapers and friends. I was concerned about contracting the disease in Elegu and Nimule because measures such as masks were enforced later. It was rare to see drivers putting on face masks especially those from other countries.” (SG, Elegu POE)

Delays and overcrowding at points of entry and seclusion places Truck drivers reported spending an average of 3 days (ranging 2—7 days) at POEs, waiting to be tested and cleared to enter Uganda. They also reported spending at least one day at seclusion places. They all reported overcrowding, lack of social distancing, and interacting with other truck drivers at POEs and seclusion places. The long waiting periods led to chaos, protests and demonstrations the POEs.



“We waited for 5 days at Elegu border to cross to Uganda from South Sudan. The truck drivers even held a demonstration protesting the delay. This led to chaos at the border, and there was no social distancing completely. The majority of the truck drivers were not even using face masks at that time.” (BW, Elegu POE)

### **Suspected exposures**

All the 28 truck drivers noted delays, overcrowding and interactions with authorities including the traffic police while on the road, the police and military at the customs and immigration at POEs and seclusion places. Most (75%, n=21) suspected the multiple use of the biometric fingerprint machines without disinfection. All the truck drivers who entered from South Sudan (n=25, 89%), mentioned that traffic police and military in South Sudan forced them to carry passengers from check points.

“Yes, the police in South Sudan ask us to carry passengers while on the road. The passengers are usually coughing and do not use face masks. The worst thing is that in South Sudan, people do not believe in COVID-19. They believe that their temperature is hotter than everywhere in East Africa and that the heat is enough to kill the virus.” (ESJ, Elegu POE)

### **Concerns and Stigma**

All the 28 truck drivers interviewed noted that the manner in which the police evacuates persons who test positive for COVID-19 from the community to isolation and treatment units is very traumatizing and stigmatizing.

“When the police is taking you to the treatment units, it is like you have committed a crime! And yet COVID-19 is a disease that is spread through the air and you don’t choose to get infected.” (BF, Elegu POE)

They also feared interactions with members of the community because they felt stigmatized as people at risk of COVID-19.

“[Our families avoid us.... Even the community members can hurt you because if you stop with your truck and at resting place, they think you are going to infect them with coronavirus.” (ESJ, Elegu POE)



## Discussion

Study results suggest that exposures to COVID-19 among truck drivers were due to delays at the points of entry. Despite employing preventive measures such as social distancing; use of face masks, and hand washing facilities, Truck drivers spent an average of three days waiting to be tested by the Port Health Authority and to be cleared by the immigration and customs. During these delays, truck drivers interacted with fellow truck drivers, leading to overcrowding and compromised social distancing hence enhancing the spread of the corona virus. Delays and overcrowding have been associated with increased transmission of respiratory infection (3). In our study, truck drivers also reported overcrowding at seclusion places as they interacted with fellow truck drivers. Overcrowding is a risk to the transmission of the corona virus because there is proximity between persons. This leads to the spread of the virus when one talks, coughs or breaths (4).

Our study also found out that the truck drivers used the same biometric fingerprint machine at POEs without disinfecting hands before or after use. This could also be a source of infection. The use of biometric fingerprint machines enhances the spread of contagious diseases if used without disinfection of either the machine or hands (5).

The truck drivers also reported being forced passengers in their trucks while in transit in South Sudan. This is a risk to infection by coronavirus since the truck drivers also reported that the passengers were symptomatic and not using face masks. Coronavirus can be transmitted by symptomatic persons of unknown status (6) and pre-symptomatic persons (7).

## Conclusion and recommendations

Multiple exposures specific to truck drivers likely put them at elevated risk of SARS-CoV-2 infection. We recommended that MOH expedite sample collection, testing, and result return by enacting point-of-care testing and intensify behavioral change communication.



## References

1. Mahase E. China coronavirus: WHO declares international emergency as death toll exceeds 200. *BMJ: British Medical Journal (Online)*. 2020;368.
2. Bell D, Hansen KS, Kiragga AN, Kambugu A, Kissa J, Mbonye AK. COVID-19 in Uganda: Predicting the impact of the disease and public health response on disease burden. *medRxiv*. 2020.
3. Nannyonga BK, Wanyenze RK, Kaleebu P, Ssenkusu JM, Sengooba F, Lutalo T, et al. Infodemic: How an Epidemic of Misinformation Could Lead to a High Number of the Novel Corona Virus Disease Cases in Uganda. 2020.
4. Al-Tawfiq JA, Memish ZA. Drivers of MERS-CoV transmission: what do we know? *Expert Review of Respiratory Medicine*. 2016;10(3):331-8.
5. Jacobs JA, Van Ranst M. Biometric fingerprinting for visa application: device and procedure are risk factors for infection transmission. *Journal of travel medicine*. 2008;15(5):335 -43.
- Burke RM. Active monitoring of persons exposed to patients with confirmed COVID-19—United States, January February 2020. *MMWR Morbidity and mortality weekly report*. 2020;69.
7. Tindale L, Coombe M, Stockdale JE, Garlock E, Lau WYV, Saraswat M, et al. Transmission interval estimates suggest the pre-symptomatic spread of COVID-19. *MedRxiv*. 2020.