INTRODUCTION

The momentous 2008 World Health Organization (WHO) commissioned report pertaining to the social determinants of health has drawn great attention and focus to those causal and contributory elements that drive health and well-being (Commission on Social Determinants of Health, 2008). The circumstances in which people are born, grow, live, work and age as well as the interconnection of social and economic relations that shape them, constitute social determinants of health (Centers of Diseases Control & Prevention, 2019).
The social determinants of health include but are not limited to the social gradient, stress, early life, social exclusion, addiction, food, work, unemployment, transport and social support (U.S. Department of Health & Human Services, 2020). The report recognising the importance of the aforementioned factors, advocated for the improvement in daily life, and confronting inequities in power, money and resources, which ultimately dictate the experiences of daily life at local, national and global levels. In particular, employment and working conditions have potent impacts on health and health equity through their influence on ‘financial security, social status, personal development, social relations and self-esteem’ (Commission on Social Determinants of Health, 2008, p. 5). These observations are consistent with published literature that identify income and employment/unemployment as determinants of health (Cooper et al., 2015; Krisberg, 2016; Marmot, 2002; Pharr et al., 2012; Stroons et al., 1997). Additionally, employment and working conditions mediate exposures to various physical health hazards and when poor, these tend to congregate in lower-status occupations (Commission on Social Determinants of Health, 2008).

In an era of COVID, occupational groups such as taxi drivers whose employment and earning opportunities during ‘lockdown periods’ may be at risk and who furthermore may be at increased occupationally related risk of exposure to COVID-19, warrant attention. In Thailand, tuk-tuk (three-wheeled motor taxis) drivers, who collectively constitute a vulnerable group, are among those who have been most severely affected by the coronavirus pandemic, becoming unemployed because of shutdown in the lucrative tourism industry. A consequent worsening of inequality in that society has been predicted (Asadullah & Bhula-or, 2020).

The taxi industry plays a critical role in transportation systems and economies across the globe. Widespread interest related to working conditions, habits and health in the taxi sector has emerged in the last two decades. It is a large employer in many countries and substantial amounts of money flow within the industry (Poó et al., 2018). Taxi drivers have been documented as an at-risk group for COVID-19 infection (Office of National Statistics, 2020; Lan et al., 2020; Sim, 2020). To protect their health and well-being, consideration must be given to the effect of the pandemic on their employment and income which as social determinants of health ultimately affect their health status. Specifically, the ability to adopt and sustain recommended preventive measures including sanitising (personal and vehicular), reduction of passenger loads and wearing of protective masks can directly be impacted by employment and income.

The economic impact and associated fears of taxi drivers consequent to the emergence and persistence of the COVID-19 pandemic have been generally alluded to in motley reports worldwide, but detailed empirical data have been sparse. Qualitative inquiry has provided insight on taxi drivers, their economic challenges and health. Thematic analysis has revealed that economic pressure, occupational expenses, instability and income shortfalls generate livelihood concerns and engender, unsafe, unhealthy compensatory behaviours (Mehri et al., 2018). A Canadian study among minority taxi drivers has suggested that taxi drivers face health challenges due to their social position and attendant lack of access to economic resources. The work itself, characterised by economic uncertainty and exploitation, fatigue and high levels of competition, was also imitative of optimal health. Engagement in risky behaviours on the job was reported among taxi drivers, but simultaneously, they intuitively utilised health-protective strategies to mitigate the threats to health (Facey, 2003).

In Nepal, taxi drivers have been described as a major group at risk of respiratory problems due to their job-related exposure to polluted environments, with nearly a quarter of them reporting at least one respiratory problem (Gautam & Jnawali, 2019). Given that pre-existing chronic respiratory disease is associated with more severe COVID-19 disease (Flaherty et al., 2020), such a finding among taxi drivers assumes even greater occupational safety and public health importance in the prevailing pandemic.

Any reduction in employment and work can have a devastating effect on taxi drivers. One study in Los Angeles, California, USA found that although taxi drivers work an average 72 hours per week, they still earn below the living wage for that city and less than the minimum wage for the state (Blasi & Leavitt, 2006). Anti-COVID-19 measures such as lockdowns and curfews can practically annihilate such livelihoods. In such circumstances, they can reduce the ability of taxi drivers to cope and comply with previously mentioned procedures and recommendations aimed at reducing COVID-19 transmission in the taxi industry. Consequently, prevention of both direct and indirect transmission from passenger to passenger and from passenger to driver and vice versa may be compromised.

COVID-19 impacts the livelihood of taxi drivers in personal ways. Taxi drivers in New York have been said to be on the battlefront taking COVID-19 patients to hospitals. Some apparently got ill from occupationally related exposures while trying to work to pay bills. When cabbies get ill, they are challenged to pay their bills, including that to keep their taxi (Long, 2020). In New York, for March/April
In the same vein, the president of another taxi and bus operators’ organisation has surmised loss of 25% of daily income among such operators; with fewer passengers traveling while spending every day on materials to sanitise vehicles. Allegations of excessively enthusiastic enforcement of COVID-19-driven restrictions for the taxi sector have also been made by taxi operators (Loop Jamaica, 2020). However, the Jamaican state has not been blind to the plight of taxi owners and taxi drivers. They were listed among the groups of persons who could apply for a grant of up to 25,000 Jamaican dollars (US$180) to alleviate financial distress (Simpson, 2020).

What is the reported COVID-related loss in income among taxi drivers in Jamaica? Are there relationships between the COVID-induced economic effects and reported practices among taxi drivers in Jamaica? How might this affect the fight to reduce COVID-19 transmission and associated morbidity and mortality? Are there public health policy and programmatic implications? Are there lessons to be gleaned and shared with other countries that may be useful in the global battle against COVID-19? To date, these questions remained unanswered. Given the importance of social determinants of health, this study will describe the socio-demographic profile of taxi operators in an urban setting (the KSMA) in Jamaica; determine self-reported income changes attributed to the COVID-19 pandemic; describe reported actions and adherence to COVID-related recommendations pertaining to their occupation; and ascertain attitudes to specific actions of authorities that affect their livelihoods. This study will also assess the relationships between income changes and the aforementioned variables and discuss their implications for health, COVID-19 disease transmission and control.

2 | METHODS

A cross-sectional study which examined knowledge, risk perception, attitudes and practices pertaining to COVID-19 was carried out in the Kingston and St. Andrew Metropolitan Area (KSMA) in Jamaica in May 2020 among taxi drivers. Taxi drivers were eligible for the study if they were operators of public or private hackney carriages and route taxis from well-established taxi hubs in the KSMA. The hubs constitute a wide cross-section of geographical locations within the KSMA. Taxi drivers (e.g., operators of private taxis at the airports and those engaged in tourist excursions) were not included in the study because the hubs were closed due to the COVID-19 outbreak, at the time of the study.

An estimated 19,000 taxi drivers operate in Jamaica, with almost half operating in the KSMA. At the time of the study, there was a dearth of published peer-reviewed literature examining the knowledge, attitudes and practices of taxi drivers pertaining to COVID-19. However, knowledge and perception of COVID-19 among the general public in the United States and the United Kingdom, examined in a

2020 time period, it was reported that 82% of taxi drivers indicated running out or being close to running out of money to buy food and about 70% could not meet their monthly mortgage obligations (Chan, 2020). Both economic and health concerns were similarly reflected in an Australian report early in the pandemic where taxi drivers were finding it difficult to earn a living amidst steeply declining passenger numbers and amidst fears of doing airport pick-ups due to COVID-19 (Mackay & Zwartz, 2020). Among taxi drivers, income reduction of about 30% has been reported in Singapore (New Straits Time, 2020) while in Barcelona, Spain where 90% of taxi drivers are self-employed, earnings reportedly declined by 85% (Catalan News, 2020). In Berlin, Germany, the drop in demand for taxis, due to the COVID-19 pandemic, caused revenues in the taxi sector to fall by 80%–90%, hourly earnings fell to about 5.4 Euros, considerably below the minimum wage rate of 9.35 Euros per hour; all this occurring amidst taxi drivers attempts to disinfect vehicles daily, cleans car seats, door handles and other areas after every passenger, install protective barrier solutions (screens to separate passengers and drivers) and to wear masks (DW Akademie, 2020). In general, these latter actions implicitly entail additional costs and adherence to such measures, arguably is threatened by marked narrowing of the fiscal space in which taxi drivers operate. In Toronto, Canada, these growing costs have reportedly caused an exodus of a quarter of taxi drivers off the roads (Yahoo News, 2021). In response to the situation created by the COVID-19 pandemic, Germany, Thailand, the USA, as well as other countries, have made taxi drivers eligible for financial grants (Chan, 2020; DW Akademie, 2020) to be disbursed to economically vulnerable groups.

In Jamaica, taxis are integral to a functional transport sector. Three operational types predominate: (a) route taxis which ply prescribed routes with passengers paying separate fares along that route; (b) hackney carriages which traverse roads and locations frequented by the public and which should carry no more than four passengers traveling together; and (c) contract carriages (locally called ‘private’ taxis), where vehicles under arranged contract, are remunerated for ferrying passengers. ‘Illegal’, ‘unregistered’, ‘informal’ operators vernacularly referred to as ‘robot taxis’ can also be found, their exact number probably non-trivial, but not really known. In the capital city and its neighbourhoods, the greater Kingston and St. Andrew Metropolitan Area (KSMA) where about 1 in 3 Jamaicans live (Bailey, 2014), 6–8 major transport hubs can be identified which were operators of public or private hackney carriages and route taxis from well-established taxi hubs in the KSMA. The hubs constitute a wide cross-section of geographical locations within the KSMA. Taxi drivers (e.g., operators of private taxis at the airports and those engaged in tourist excursions) were not included in the study because the hubs were closed due to the COVID-19 outbreak, at the time of the study.

There are suggestions that COVID-19-related economic and prevention practice challenges exist among taxi drivers in Jamaica. The head of a local taxi operator association aptly provides some insight.

If the operators would normally work $6,000 [US$42] per day and buy gas, it cut down some days. Even me [I], from this thing happening don’t go on the road. And I hear many of the operators saying dem [they are] out there for the whole day and they can’t make even $3,000 [US$21], and by the time they make that and buy gas, they’re way behind their margin — and some working for other people [don’t own the taxi they drive] (Jamaica Observer, 2020).
study conducted by Geldsetzer (2020), found that 74.8% of participants from the United States were knowledgeable that droplets were the main mode of transmission of the coronavirus (Geldsetzer, 2020). Utilising that proportion and applying the usual 95% confidence interval, and 5% margin of error, the minimum required sample was approximately 282 (Raosoft, 2004).

A multistage sampling technique was utilised. Strata were identified (the hubs) and hubs were visited on three randomly selected days during a given week throughout the study period. The hubs were visited between 8 a.m.—12 p.m. and 1 p.m.—5 p.m. each day, in keeping with the existing curfew restrictions. At the time of visit, alternate taxi drivers lined up at the hubs (systematic sampling in 1 in 2) were approached for participation in the study. The refusal rate among taxi drivers approached was less than 4% (11 of 293 approached). Where taxi drivers refused to participate, the recruitment process continued until the required sample size was obtained. Approximately 40 taxi drivers were obtained at each hub.

Data were collected over a 2-week period (3–14 May 2020) using an anonymous, self-administered questionnaire. The questionnaire consisted of 28 items and included items related to socio-demographic characteristics (gender, age category, marital status, highest level of education, number of persons in household and whether the taxi driver was the only breadwinner in the family), characteristics of taxi (type of taxi operated and ownership status), income before COVID-19, income since COVID-19, perceptions relating to government actions (school closure, police presence, transporting recommended number of passengers, COVID-19 relief package), COVID-19 prevention practices (sanitisation of hands and vehicle, and wearing masks while transporting passengers) and challenges encountered due to COVID-19 (increased gas price, increased food price, takes a longer time to get required number of passengers and increased competition from other drivers). With regard to opinions about government actions, Likert-type questions were used, with respondents indicating level of agreement on a three-point scale (agree, undecided and disagree) in response to statements such as ‘government closed schools too suddenly’ and ‘there is a stronger police presence on the road since the COVID-19 outbreak’. For prevention practices, a similar approach was used with respondents being asked to indicate frequency of practices on an ordinal scale. The questionnaire was developed bearing in mind the objectives of the study, variables that have been identified through literature review as relevant to taxi drivers and the COVID-19 pandemic, and the issues or concerns that were arising in media reflecting the local realities and context. The questionnaire took approximately 15–20 minutes to be completed. The questionnaire was pre-tested among 30 taxi drivers in another metropolitan area.

Data were analysed using SPSS version 20 (IBM, 2020). The relative frequencies for the socio-demographic characteristics of taxi drivers, attitudes and compliance to specific actions of authorities that affect their livelihoods, and challenges faced by taxi operators were reported. The median income and income changes (pre-COVID-19 and during the COVID-19 pandemic) were determined and the correlation between income change and the frequency of COVID-19 prevention practices was assessed using Spearman’s Rho. The association between changes in income and socio-demographic characteristics was assessed using the Mann–Whitney U or Kruskal–Wallis test as appropriate. A 5% alpha level was utilised in determining statistical significance. Taxi operators’ income was reported in Jamaican Dollars (JMD) currency and converted to United States Dollars (USD) at the prevailing exchange rate of 1 USD to 140 JMD.

All participants provided informed consent for participation in the study. Ethical approval for the study was obtained from the University of the West Indies, Mona Campus Research Ethics Committee (ECP 196, 19/20).

### TABLE 1 Socio-demographic characteristics of taxi operators

| Variable | Frequency, n (%) |
|----------|-----------------|
| Gender (n = 281) |                      |
| Male      | 274 (97.5)       |
| Female    | 7 (2.5)          |
| Age category (years; n = 280) |                |
| ≤35       | 62 (22.1)        |
| 36–55     | 157 (56.1)       |
| ≥56       | 61 (21.8)        |
| Marital status (n = 281) |                  |
| In Union  | 158 (57.0)       |
| Not in Union | 119 (42.3)     |
| Highest level of education (n = 273) |                 |
| Primary and below | 37 (13.6) |
| Secondary  | 202 (74.0)       |
| Vocational | 19 (7.0)         |
| Tertiary  | 15 (5.5)         |
| Numbers of persons in household (n = 279) |             |
| Live alone | 41 (14.7)        |
| 2–4       | 165 (59.1)       |
| 5–7       | 64 (22.9)        |
| ≥8        | 9 (3.2)          |
| Only breadwinner in family (n = 278) |              |
| Yes       | 193 (69.4)       |
| No        | 85 (30.6)        |
| Type of taxi (n = 277) |                 |
| Route     | 41 (14.8)        |
| Hackney carriage | 177 (63.9) |
| Contract carriage | 34 (12.3) |
| Robot     | 25 (9.0)         |
| Ownership status (n = 278) |                |
| Owner     | 124 (44.6)       |
| Not-owner | 154 (55.4)       |
3 | RESULTS

3.1 | Socio-demographic characteristics of taxi operators

There was a total of 282 taxi drivers in the study. Among taxi drivers in the study, the majority (97.5%) was male. Those in the age category 36–55 years accounted for 56.1%. Regarding marital status, 57% of taxi operators reported that they were not in union (persons who are single, separated, divorced or widowed) while remaining portion was in union (persons married or living as married). Seventy-four percent of respondents had secondary level education. Most (59.1%) operators had two to four persons living in their household, and 69.4% indicated that they were the only breadwinner in the family. Almost 64% operated hackney carriages and the majority (55.4%) of taxi operators did not own the vehicle they drove (Table 1).

3.2 | Changes in income among taxi operators

Taxi operators reported a median pre-COVID-19 monthly income of JMD 200,000 (IQR JMD 205,416) [USD 1,428.57, IQR = 1,467.26], about USD 51 per day. Approximately 97% (n = 269) of operators reported that their income has decreased due to COVID-19, 2.5% (n = 7) reported an increase while 0.4% (n = 1) reported that there has been no change in income. The median monthly income reported by taxi operators since the COVID-19 was JMD 70,000 (IQR = JMD 66,133) [USD 500, IQR = 472.37], about USD 18 per day, representing a 65% reduction in income. Change in income was not statistically associated with gender, age, marital status and education level. Neither was it associated with household size, being the sole breadwinner in the family or taxi type and ownership.

3.3 | Adjustments due to COVID-19

Among taxi operators, 91.4% (n = 255) indicated that their hours of operation had decreased since COVID-19, 4.7% (n = 13) reported that it had not changed while 3.9% (n = 11) indicated that they worked for longer hours. Only 14.9% (n = 40) reported changing their route of operation. Taxi operators were also asked if they would support a 50% increase in fares: 55.6% (n = 154) agreed to the increase; 39.7% (n = 110) disagreed; and 4.7% (n = 13) were undecided.

3.4 | Attitudes and compliance to specific actions of authorities that affect their livelihoods

Although transport of school children and education personnel contribute significantly to taxi drivers’ earning, almost 88% of respondents disagreed that the government closed schools too suddenly. Most (58.4%) agreed that there was stronger police presence since the beginning of the COVID-19 outbreak. Almost 95% of taxi operators reported adherence to the maximum recommended number of passengers (by the government) they simultaneously transported. Almost 59% of taxi operators reported being aware of the COVID-19 relief package offered to operators by the government. Among those who were aware, approximately half (50.3%) reported that they made an application (Table 2).

### Table 2: Attitudes and compliance to specific actions of authorities that affect their livelihoods

| Variables | Frequency, n (%) |
|-----------|-----------------|
| Government closed schools too suddenly | Agree 28 (10.0) | Undecided 6 (2.1) | Disagree 246 (87.9) |
| Stronger police presence since COVID-19 outbreak | Agree 160 (58.4) | Undecided 16 (5.8) | Disagree 98 (35.8) |
| Adherence to transporting recommended number of passengers | Yes 257 (94.5) | No 15 (5.5) |
| Awareness of COVID-19 relief package | Yes 165 (58.7) | No 116 (41.3) |
| Application for COVID-19 relief package | Yes 83 (50.3) | No 82 (49.7) |

### Table 3: Challenges faced by taxi operators

| Variables | Frequency, n (%) |
|-----------|-----------------|
| Increased gas price | Yes 94 (34.3) | No 180 (65.7) |
| Increased food prices | Yes 131 (47.8) | No 143 (52.2) |
| Takes a longer time to get required number of passengers | Yes 157 (57.3) | No 117 (42.7) |
| Increased competition from other drivers | Yes 140 (51.3) | No 133 (48.7) |
3.5 | Challenges faced by taxi operators

The majority (65.7%) of taxi operators did not report an increase in gas price since the COVID-19 outbreak and 52.2% of them reported no increase in food prices. Approximately 57% indicated that it takes a longer time to get required number of passengers while 51.3% reported increased competition among taxi drivers since COVID-19 (Table 3).

3.6 | COVID-19 practices

Most (64.7%) taxi operators sanitised their hands five to seven times per trip. Almost 14% reported that they sanitised 0–1 time per trip. Sanitisation of vehicle was most frequently (45.7%) done once per day with alcohol-based solution. Ninety-one percent of operators reported wearing a mask while transporting passengers (Table 4).

When practices were examined in relation to relative change in income (defined as the difference between pre- and post-COVID incomes, as a percentage of pre-COVID income), there was a statistically significant association between the relative change in income and the practice of wearing mask while transporting passengers (Table 4). Generally, as the relative change (decline) in income increased, reported compliance with mask wearing decreased (Spearman’s rho = −0.15, p = 0.02).

4 | DISCUSSION

Most taxi drivers were male, a finding not surprising given the nature of the job and its attendant risks including late and unpredictable night hours and the risk of robbery and other crimes including murder; a real possibility given high crime and homicide rates in the country (Bureau of Diplomatic Security U.S. Department of State, 2020). Education levels were largely secondary and below, consistent with the observation that this is a profession largely populated by individuals that belong to the lower socio-economic strata of society. Almost 70% were the sole breadwinner in their families and this highlights the degree to which impacts that negatively affect income and livelihood can have a ripple effect. There are potential far-reaching social consequences, not only the taxi driver but also for their dependents. Consequently, taxi drivers may need social and financial assistance, given potential declines in income due to the COVID-19 outbreak.

The median income prior to the COVID-19 outbreak and during the outbreak at the time of the study was consistent with that reported by heads of the taxi associations (Jamaica Observer, 2020), indicating concurrent validity. The massive decline in income (65%) parallels high decline reported in other countries (Catalan News, 2020; DW Akademie, 2020). The impacts of such decline are potentially more severe in the local context, given that almost 55% of taxi drivers do not own the vehicle they drive. In such situations, contractual agreements and payments to owners often become the highest priority at the expense of personal health and family welfare. We note in our study that only 57% of taxi drivers indicated taking more time to find passengers, but still have a decline in income because the hours of work were drastically reduced due to curfew restrictions.

Government’s offering of relief grants might be interpreted as an attempt to ease the economic plight of taxi drivers. Yet, only three in five taxi drivers were, at the time of interview, aware of the package, and among those who were aware, only 50% had
applied. These observations may in part be explained by fear of taxation, should they be formally registered in the grant relief system; fear of ‘tracking and arrest,’ especially where there are outstanding fines, tickets and warrants for traffic and other related offences (Jamaica Observer, 2019; The Gleaner, 2019); technology challenges with accessing and navigating the online grant application systems; perceptions that only the owners of the vehicles were eligible for the grants; and failure to provide the verification needed to meet eligibility requirements (Radio Jamaica News, 2020). The grants, although quite modest, can help for example in the short term, to offset some expenses associated with increased sanitising/cleaning procedures that have arisen due to COVID-19 and foster health-promoting behaviours and compliance with recommended COVID prevention measures. They may even cursorily/temporarily cushion negative impacts of declining incomes. Grey literature alludes to the lack of awareness COVID-19-related government relief programmes and government support in India (Kumar, 2020). It was noted in Senegal that despite the existence of uptake of economic relief packages and grants, uptake by the private and business sectors needed to be improved (International Monetary Fund, 2021). In Bangladesh, only 23% of persons expected support from the government during the pandemic (BRAC Bangladesh, 2020). Low expectation may possibly result in low interest and awareness of government support programmes.

Although most drivers frequently reported sanitising their hands during daily operations, 14% reported only sanitising once or none at all per trip. This is cause for concern as some route taxis and hackney carriages who make multiple stops (with passengers boarding and alighting and paying fares) as they ply their trade are included. Declining incomes may hinder the pursuit of optimal sanitisation practices. Consequently, there is a need to enable these drivers to pursue the desired sanitisation measures. Distribution of sanitisers in addition to the grants may help overcome such challenges especially where the barrier to adopting and maintaining desired health behaviour is financial. The correlation between less mask wearing and greater relative decline in income, we posit, may be the result of a tendency to earn at all cost, and to take greater risk in compensating for income loss. The trend may also be possibly explained by reduced capacity to buy masks, which at the time of the study (early in the pandemic), was relatively costly. Nevertheless, compliance was relatively high, purportedly catalysed by the reported increased policing since the COVID-19 outbreak. These observations raise concern about the sustainability of desired behaviours over time. Behaviour change models imply that when the compliance occurs mainly because of coercion and where it is threatened by shortfalls in disposable income, it is unlikely to be maintained in the long term (Rosenstock et al., 1988).

Our findings underscore the potential impact of employment and income on health and health behaviours. They point to the importance of financial security, social status, social relations and self-esteem in the pursuit and maintenance of practices, which are determinants of health. If these are not recognised, taxi drivers, in this pandemic, may put themselves, their families, passengers and the wide public at greater risk for untoward COVID-19-related health consequences. Although grants may help cushion the economic impact of COVID-19 in the taxi sector, it must be accompanied by targeted health education/promotion activities, including the creation of supportive environments and actions. There may be need to provide masks and sanitisers as part of a comprehensive public health response to the needs of this special/vulnerable occupational group. Overall, the focus should be on preventing deepening income inequality and attendant health inequity. At the time of writing this paper, some efforts have been implemented including a re-opening of the online grant application portal for taxi drivers and some ease of the restrictions concerning number of passengers per vehicle. However, taxi drivers have not been successful in their lobby efforts to be recognised as a priority group for COVID-19 vaccination. This paper may help to inform the debate and discussion regarding the taxi industry and COVID-19 policies in Jamaica and other international settings as countries respond to the prevailing pandemic.

This study is the first of its kind in the Caribbean, and one of few from the developing world, where, currently, the majority of the increase in COVID-19 cases is occurring. Major strengths include the provision of new and important information, and the presentation of empirical data rather than anecdotal impressions. The study was carried out in an urban setting, and findings may not necessarily be extrapolated to rural settings. Incomes were self-reported, and may generate validity concerns; however, the agreement between our finding and those reported by the taxi associations suggests concurrent validity.

5 | CONCLUSION

Taxi drivers have experienced marked decline in income due to the COVID-19 pandemic. Both the pandemic and associated income declines threaten life and livelihood. There are implications for health practices and the maintenance of desired health behaviours. Authorities should be cognisant of the economic impact and COVID-related consequences in the taxi industry, as they seek to develop COVID-19 occupationally related prevention and control programmes.

ETHICAL REVIEW

The study was approved by The University of the West Indies, Mona Campus Research Ethics Committee, Mona, Kingston 7, Jamaica (ECP 196, 19/20).

CONFLICT OF INTEREST

The authors declare that they have no conflict of interest.
Coronavirus (COVID-19) related deaths

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OWERS’ CONTRIBUTIONS

Kenneth James, Camelia Thompson and Cameal Chiin-Bailey conceived the idea for the study, participated in data collection, data analysis and manuscript preparation. Kayon Donaldson Davis, Desmalee Holder Nevins and Dawn Walters participated in data collection, data analysis and manuscript preparation.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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