

Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active. versus ('good' (very good/good) using logistic regression, adjusting for potential confounders (age, income, employment status).

*Results*: Polychoric factor analysis confirmed that it was appropriate to combine the four survey items into a single index (Cronbach's Alpha=0.86; Keiser-Meyer-Olkin measure of sampling adequacy= 0.76, factor loadings >0.74). After controlling for confounding factors, being in the highest CSI group was associated with higher odds of reporting poor self-rated health (Odds Ratio: 1.79, 95% Confidence Interval: 1.48-2.17) compared with the lowest CSI group. There was a dose-response gradient, with those in the second and third highest CSI groups also having increased odds of reporting poor self-rated health, though of lower magnitude ((1.21, 95% CI 1.01-1.45) and (1.41, 95% CI 1.16-1.71) respectively).

*Conclusions:* We found an inverse association between CSI and self-rated health. This suggests that to improve health, local governments and road authorities should take steps to reduce community severance through traffic reduction and calming, pedestrian prioritisation, and the installation of well-designed crossing points.

## #2880

## FACTORS AFFECTING MOBILITY PATTERNS DURING OFFICIAL LOCKDOWN PERIOD IN BANGLADESH: A CASE OF COVID-19

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*Background:* Several prescribed preventive measures during COVID-19 pandemic has brought changes in mode choice patterns. This study is focused on the distribution of the travelers' modal choice pattern amidst lockdown period in Dhaka city. A comprehensive questionnaire survey with 224 responders (Male 34.8%, Female 65.2%) has been conducted where participants have chosen their modes based on five factors i.e., transmission risk, comfort, safety, cost-effectiveness, and timeliness. Additionally, travel frequencies, ride sharing preferences and overall satisfactions were also documented.

*Methods*: Frequency analysis represented the number and percentage of responses under each category to understand the inclination of people's choice in response to several factors. To understand the relation between and within categorical and continuous variables, Chi Square test has been conducted. One-way Chi-Square test is performed on categorical variables namely age, gender, income, safety, timeliness, cost-effectiveness, transmission risks, comfort, satisfaction, and ride sharing to understand if the observed distribution is same as the expected distribution or not with the significance value 0.05. The two-way chi square test analyzed whether there is an association between age, gender, monthly income with the choices under safety, comfort, timeliness, cost-effectiveness, high risk of virus transmission, ride-sharing preferences.

*Results*: Approximately 82.6% respondents are in age group of 14-29 years. It is found that about 58.9% people did not travel even once in a week and 4.5% people travelled daily during the lockdown period. Respondents perceive that auto-rickshaw/CNG has the highest risk of transmission (37.1%) whereas motorcycle has the lowest (5.8%). Considering fare, maximum people (28.6%) preferred private-car and rickshaw. Modal choice distribution, based on comfort during lockdown is the highest for cars with 57.1% and the lowest for public transports with 0.9%. Distribution of modal choices considering safety was 39.7% for car and 2.2% for CNG/auto-rickshaw. This survey discovered that about 78.6% people completely preferred to avoid ridesharing. It is evident from one-way Chi square test that the categorical variables have a significant relationship. According to two-way Chi square test, during the lockdown period, gender has a statistically significant influence on selection when it comes to cost effectiveness and timeliness. Also, monthly income and overall satisfaction with the trips are not independent of each other and there is significant relationship between them as well. *Conclusions:* The vehicles with a high risk of virus transmission should ensure cleanliness, mandatory use of face masks by drivers and passengers, online fare system and possible minimum social distancing.

## #2886

## ACTIVE SCHOOL TRANSPORTATION AND THE BUILT ENVIRONMENT ACROSS CANADIAN CITIES: FINDINGS FROM THE CHILD ACTIVE TRANSPORTATION SAFETY AND THE ENVIRONMENT (CHASE) STUDY

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*Background:* Walking and bicycling to school (active school transportation, AST), has been in decline for decades in North America. An important factor influencing AST is the roadway-built environment. This cross-sectional study from the Child Active-Transportation Safety and the Environment (CHASE) research program assessed associations between the built environment and AST across seven Canadian cities/regional municipalities and provides insights into built environmental features most supportive of AST.

*Methods*: We conducted an observational study in spring 2018 and 2019, at 552 publicly funded elementary schools (JK-grade 8) in Montreal (n=67), Laval (n=50), Toronto (n=76), Peel (n=71), Calgary (n=125), Vancouver (n=67), and Surrey (n=96), Canada. Trained observers counted children's school travel modes during morning drop off time, using a methodology with previously established reliability. Built environment data related to density, land use diversity and design, was obtained from spatial databases and site audits. Social and built environment features were consistently measured across cities through a common database. The proportion of AST was modelled for all cities using random effects beta regression, followed by separate models for each city.

*Results*: Travel mode was recorded for  $\sim$ 118,000 students. Across all schools, the average proportion of AST was 54.3% (SD 18.9%), ranging from 39.5% (SD 22.1%) in Laval to 69.7% (SD 18.1%) in Montreal, Quebec. Across all cities, higher odds of AST were associated with higher child population density (OR: 1.08 95% CI 1.05, 1.11), cycling infrastructure (OR: 1.05; 95% CI: 1.00, 1.11), school crossing guards (OR: 1.13; 95% CI: 1.01, 1.28), traffic signal density (OR: 1.44; 95% CI: 1.04, 2.00), and local road density (OR: 1.10; 95% CI: 1.04, 1.17). Increased residential land use was