



COVID-19 Preventive Measures Impact on Traffic Demand & Safety

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INTRODUCTION

- COVID-19 pandemic has affected 215 countries and has infected more than 1.3 billion people
- Imposed restrictions or complete lockdown affected travel pattern
- Reduced usage of private cars and traffic crashes
- Understanding COVID-19 Preventive Measures traffic impacts will help policy makers to enhance the long-term traffic management and safety policies.



OBJECTIVES

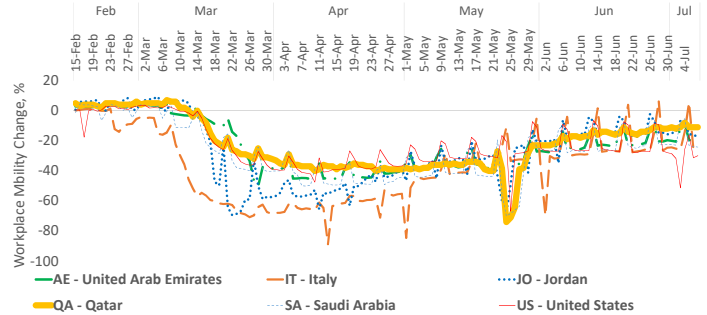
To quantify the impact of the COVID-19 pandemic and the implemented preventive measures and policies on traffic from two perspectives, demand and safety

DATA COLLECTION

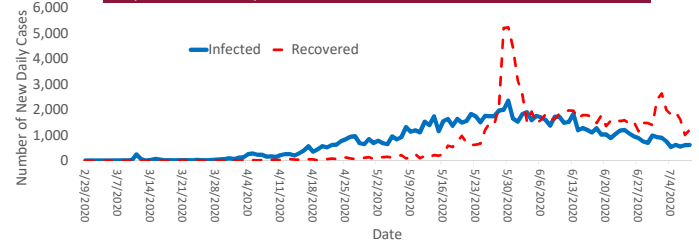
- Traffic Counts at 24 Intersections and Screen line analysis Before/After pandemic
- Traffic Safety Data Across Qatar: the number of traffic violations, and the number of crashes by severity



Workplaces Mobility Variability during COVID-19 Pandemic



Daily Trend of Newly Infected and Recovered Cases in the State of Qatar



The outcome of this research outlines how to assess the effectiveness of each preventive measure in reducing people's mobility, which will also provide the policymakers with a valuable tool that reflects real-life conditions if similar policies to be implemented to manage traffic especially during events (i.e., World Cup Qatar 2022)

Preventive Measures Actions

Action 1:

The closure of educational institutions by studying remotely and restricting international travels from certain countries.



Action 2:

The closure of all commercial establishments (except pharmacies and food stores), public transport and taxi services, and ban of international travelers from all countries.

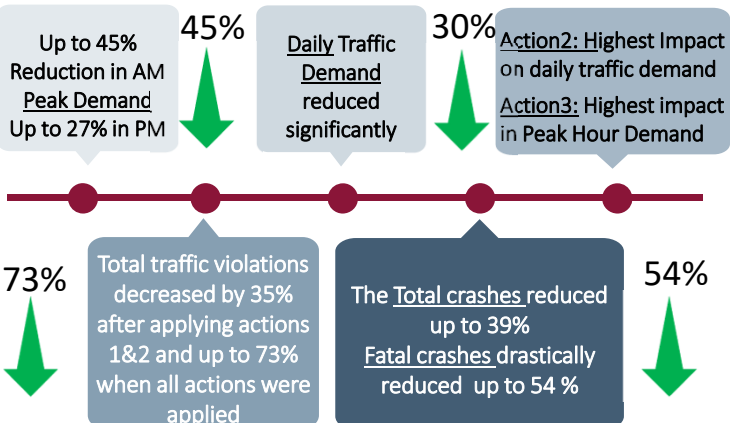


Action 3:

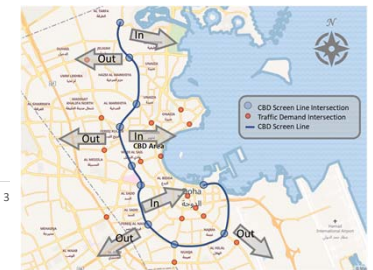
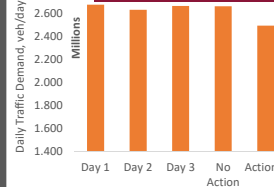
Reduction in the number of employees at the workplace by 80 % in both public and private sectors and promote working remotely.



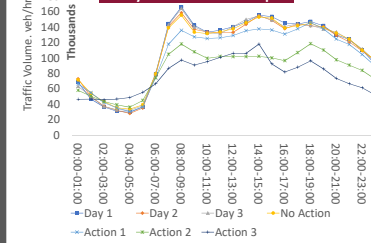
MAIN CONCLUSIONS



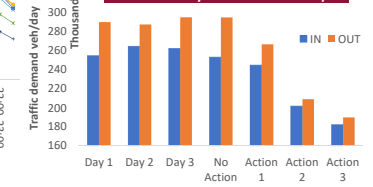
Daily Traffic Demand Impact



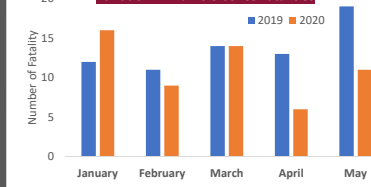
Hourly Traffic Demand Impact



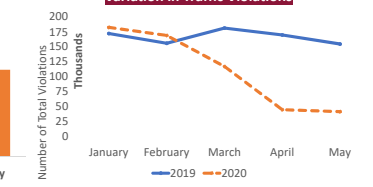
Screenline Daily Traffic Demand Impact



Variation in Traffic Crashes Fatalities



Variation in Traffic Violations



ACKNOWLEDGEMENT

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