RTM Update

User Group Meeting

November 10th, 2022

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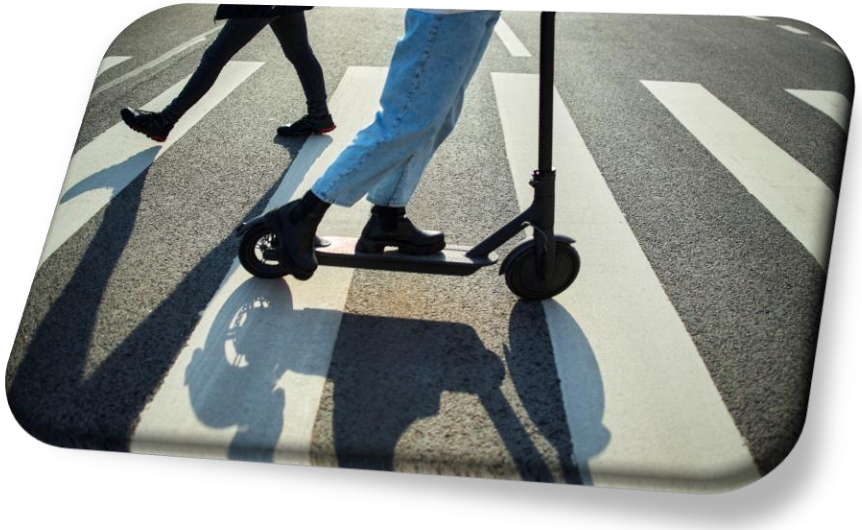
Pre-Covid Modeling Focus

- Moving towards disaggregate behavior
  - Implementing time of day choice
- Increasing ridership and traffic
- Micro-mobility
- Pedestrian & Bike Model

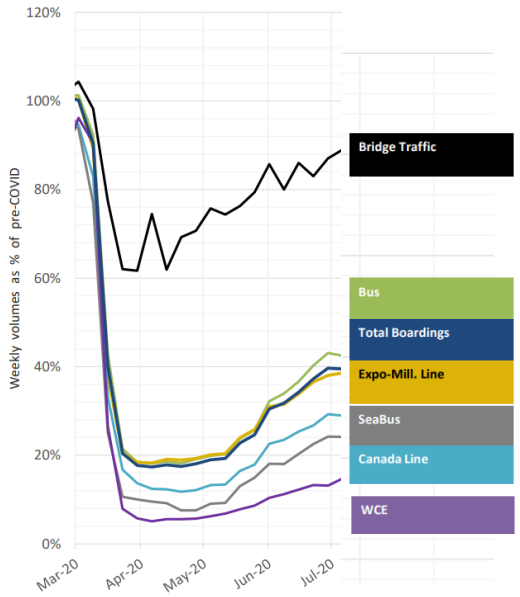


COVID-19


PETRO-CANADA
85.9
Full
Diesel
lotto!
Tennis Court Rules
PARK FACILITY CLOSED
UNTIL FURTHER NOTICE
Our public parks and trails remain open.
TENNIS COURT CLOSED
UNTIL FURTHER NOTICE

COVID-19 @ Forecasting

- Precipitous drop in trips – auto and transit
- Recovery meant (maybe) permanent change in:
  - Work location
  - Commute behavior
  - Vehicle ownership
- Increase in:
  - Online shopping
  - Food delivery services

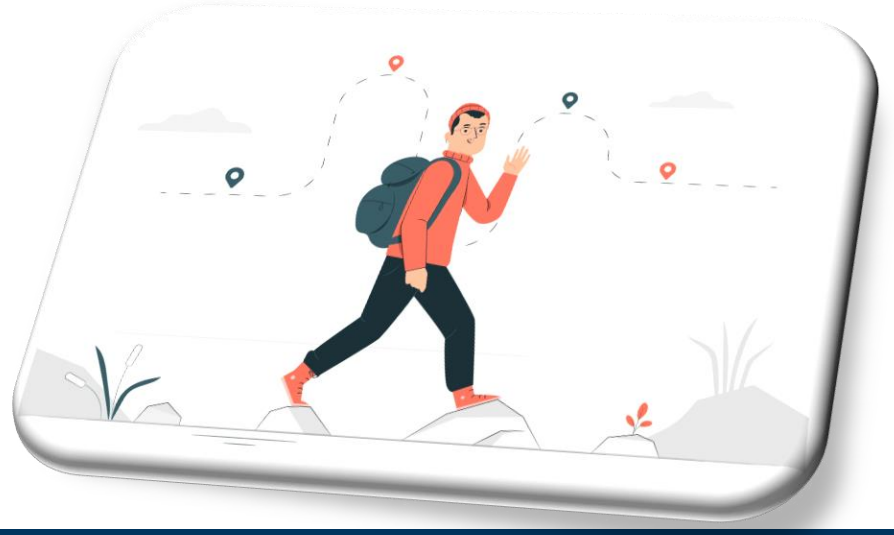


Questions

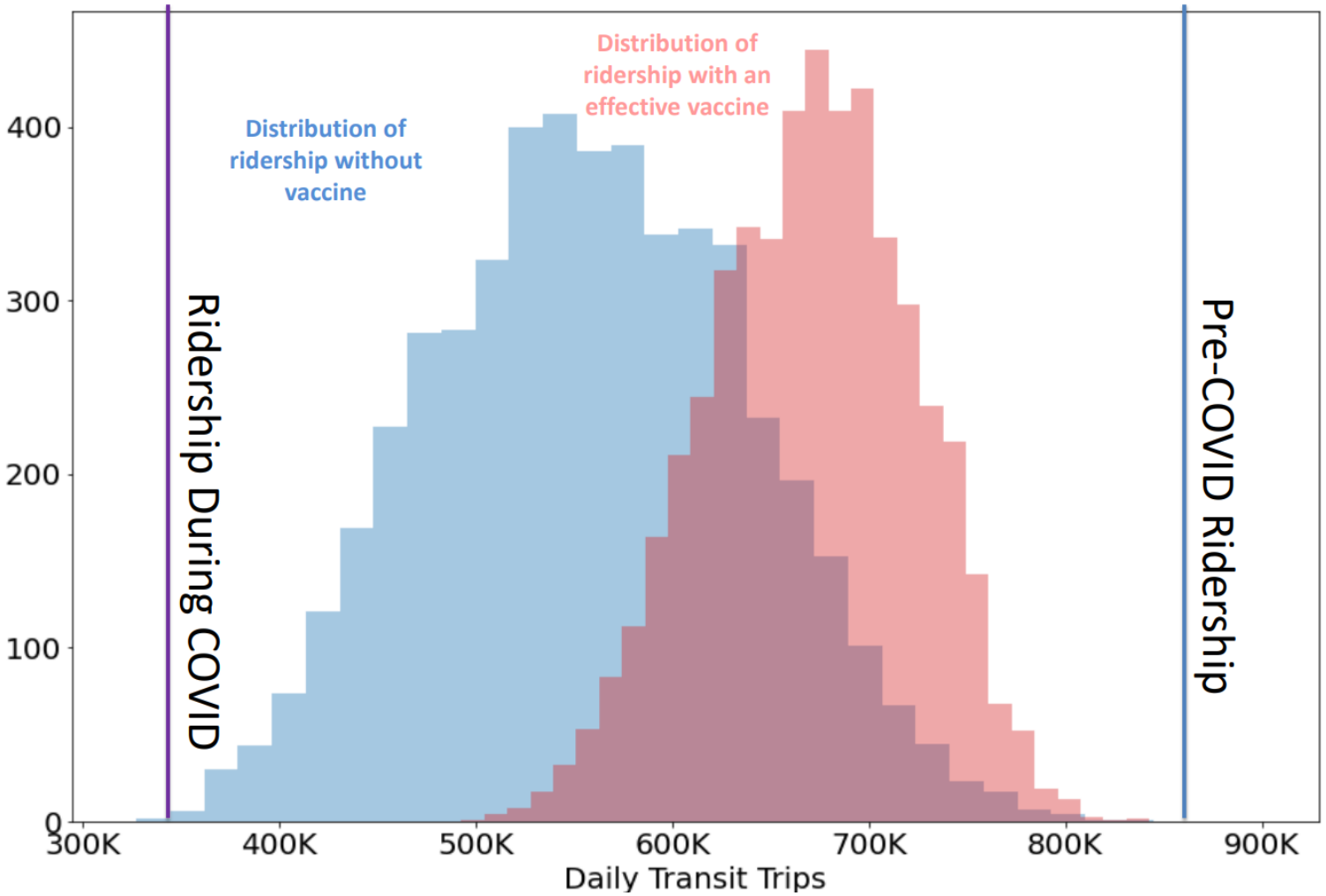
- COVID related deep uncertainty
  - Is this time really different?
  - What to model?
  - The tools to model it?

Implementing EMAT

- Coding of EMAT
- Assumptions
- Variables
- Ranges
- Integration with the RTM

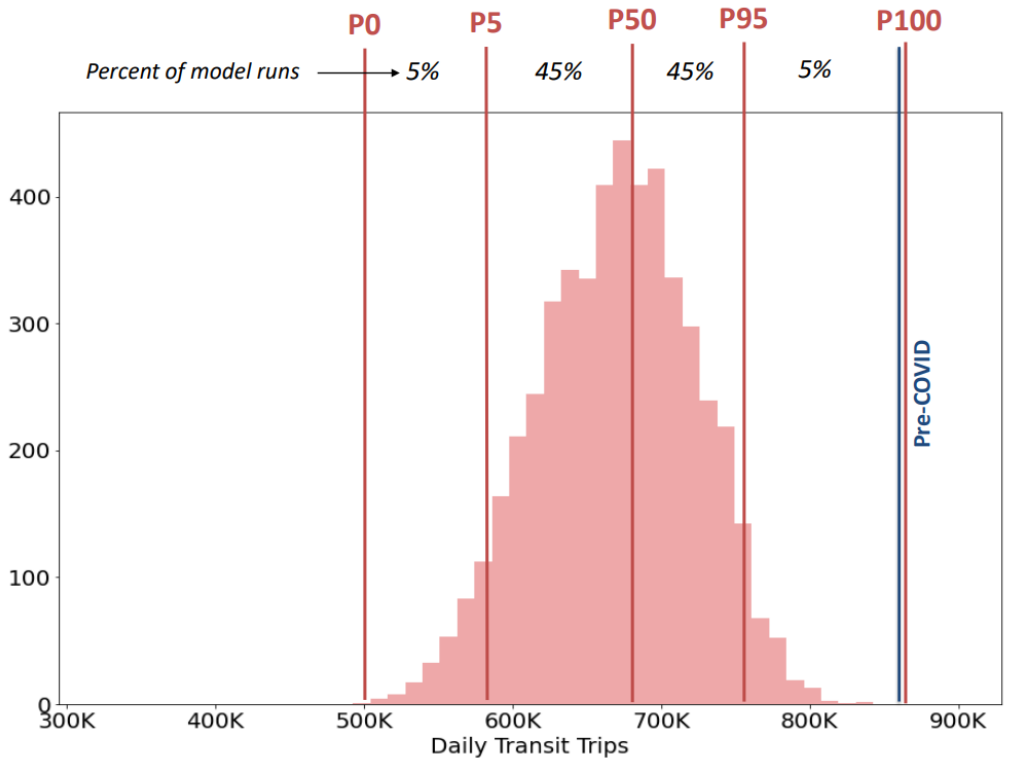


EMAT Modeling



Mid-2021 Forecast for Fall 2022

May 2021 observed = ~40%



Oct 2022 observed = ~80%

Distribution Percentile	2022 Ridership (% Pre-COVID)	Role in Recovery Scenarios
P0	60%	
P5	70%	Low scenario
P50	82%	Medium scenario
P95	91%	High scenario
P100	103%	

Thank You

- The policymakers who were receptive to the new approach
- The consultants and model users who gave us feedback
- Our peers who provided support in the process

Are we back yet?

- Data suggests that we are headed in the right direction
- But we are not living in 2017 anymore
- Changes to the model have to be made

Planned Changes to the Model (RTM 3.6)

- The Land Use update
  - Update LU data from 2017 to 2022
  - Adjust for changes using census and Metro Vancouver's data
  - Adjust for employment using payroll and job location data

Planned Changes to the Model (RTM 3.6)

- Roadway and Transit Network
  - Merging updated road networks from several sources
  - Adjust transit network for service changes that happened due to COVID
  - And renewed focus on BRT and rapid transit

Planned Changes to the Model (RTM 3.6)

- Commuter Trip Making Behavior
- Private Vehicle Ownership
- Transit Ridership

Variable Importance

	Discretionary Trips	Employment	Gas Prices	Propensity for Vehicle Ownership	Propensity to Ride Share	Telecommuting/ Remote Learning
Daily Transit Trips	0.12	0.15	0.11	0.10	0.34	0.17
PM Speed	0.07	0.22	0.06	0.23	0.06	0.36
Sustainable Mode Share	0.09	0.09	0.09	0.38	0.21	0.13
Daily VKT	0.07	0.25	0.08	0.22	0.08	0.30
Daily Fare Revenue	0.11	0.17	0.10	0.11	0.31	0.21

Bus-Based Transit Planning

- Increased sensitivity for specialty services that are the focus of T2050 and 10YP
  - BRT
  - Long-range commuter service

- Enhanced ability to code other bus features
  - BRT dedicated facilities
  - Bus Lanes (all buses)
  - Queue jumps

What else is changing?

- The ABM
- Increased focus on BRT and rapid buses
- Equity and diversity
- The Trip Diary

Feedback and Data

- Use the tool for upcoming projects
- Send us your ideas
- Data that you have that can inform the model

Thank You. Questions?