Insurance

Tackling road accidents with behavioral sciences

fractal

INTELLIGENCE FOR IMAGINATION

The Big Picture

Moradabad Bareilly Expressway (MBEL) is a 121 km stretch of the National Highway 24 (India) that has been operational since January 2015.

Within the span of the first 9 months, there was a record of over 450 accidents, with an average of 55 accidents per month.

The 4 lane highway is a mix of densely populated semi-urban and many rural transitions. The driving behaviour along MBEL was seen to be highly influenced by local norms. Unlike most highways, here the drivers were mostly from villages and towns in the vicinity. They were well versed with various routes and shortcuts. Consequently, wrong side driving, over-speeding, and high-risk driving behaviours had become the norm. Moreover, lack of sensory cues for the Main Carriageway (MCW) drivers about the approach road points added to the number of accidents recorded.

Client
Leading infrastructure company in India

Challenge
Reduce the number of road accidents on the highway

Solution
Looking at driving through the lens of behavioral science, we developed an intervention strategy to evoke a non-deliberative positive response from the target audience; triggering behavior change at a non-conscious level.

Transformative Solution

FinalMile approached 'driving' through the lens of behavioral science and understood it as a non-conscious activity governed by inherent biases and heuristics in human decision making. The limitations in information processing of the human brain make the road users adopt decisions and behaviors that are undesired.

Combining learnings from behavioral science and design, we developed an intervention strategy to evoke a non-deliberative positive response from the target audience; triggering behavior change at a non- conscious level. These methods work universally, thus overcoming demographic, region and language barriers in the road safety context.

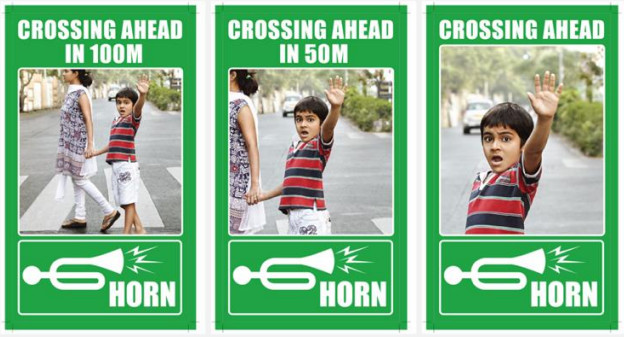
The following principles were adopted for designing interventions:

1. Managing private-optimism and risk-unavailability of the local drivers that lead to high-risk driving behavior.
2. Sensory cues for managing entry and exit of vehicles.
3. Managing goal incongruency that led to rampant wrong side driving.
4. Managing inter-vehicle distance and unanticipated behavior at merge points to reduce rear-end collisions.

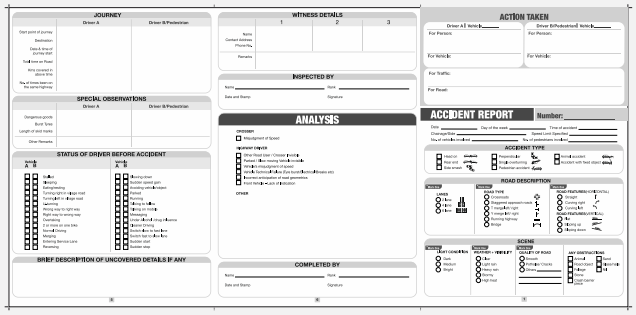
The set of interventions included road markings, road signs and disaster mitigation report.



ROAD MARKINGS



SIGNAGES



DISASTER MITIGATION REPORT

The Change

The interventions helped reduce accidents by 46%.

MBEL Data Analysis

	PRE-IMPLEMENTATION JULY 2016 TO JUNE 2017	POST-IMPLEMENTATION JULY 2017 TO JUNE 2018	IMPACT
FATAL INCIDENTS	14	6	-57%
MAJOR INCIDENTS	35	17	-51%
MINOR INCIDENTS	35	23	-34%
NON-INJURED INCIDENTS	42	22	-48%
TOTAL INCIDENTS	126	68	-46%