# TRAFFIC CRASH INJURIES AND DISABILITIES: THE BURDEN ON INDIAN SOCIETY







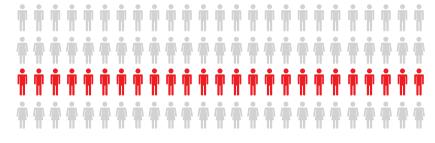
Maharashtra is a western state in India, which is the third most populated state in the country. With 6 divisions and 36 districts, the state has a projected 2020 population of 12.31 crores<sup>5</sup>, with a nominal Gross State Domestic Product (GSDP) in 2018-19 of INR 23,32,992 crore, which is 13.9% of the total population<sup>3</sup>. The nominal per capita GSDP of Maharashtra was INR 1,91,736 in 2018-19. Maharashtra is a highly urbanised state, where as high as 45.2% of the population resides in urban areas.

Maharashtra recorded 3,02,17,000 registered vehicles as of March, 2017, accounting for the largest share (11.93%) in the country<sup>1</sup>. The state also witnessed 27,286 road crashes and 14,608<sup>2</sup> road crash deaths in 2019 alone, making it the state with the 2nd highest road crash deaths in 2019.

Based on several factors like proportion of urban population, literacy rate, poverty rate and per capita net state GDP, Maharashtra has been categorised as a "High Capacity State" in this study. Maharashtra also has a relatively high female literacy rate. As of 2011, the female literacy rate in the state was 75.9%, while male literacy rate was 88.4%³. In terms of State performance on meeting the SDG goals, Maharashtra scores 64 on the index.This indicates that Maharashtra has met 64% of the SDG targets for 2030⁴. Additionally, the state scores 47 on the poverty related SDG.



# Population 12.31 Crores



#### 2017 3,02,17,000 Registered vehicles

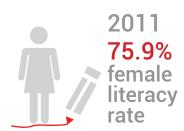


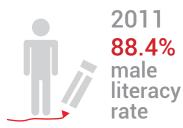
2019 27,286 road crashes



2019 14,608<sup>2</sup> road crashes deaths 2nd
highest road
crash
deaths in 2019







- Ministry of Road Transport and Highways, "Road Transport Yearbook", Ministry of Road Transport and Highways website, September 23, 2019, Accessed on October 9, 2020, https://morth.nic.in/sites/default/ files/Road%20Transport%20Year%20Book%202016-17.pdf
- 2. National Crime Records Bureau, "Accidental Deaths and Suicides in India", National Crime Records Bureau Website, August 28, 2020, Accessed on October 9, 2020, https://ncrb.gov.in/sites/default/files/ADSI\_2019\_FULL%20REPORT\_updated.pdf
- 3. Planning Department of Government of Maharashtra, "Maharashtra Economic Survey 2019-20", Government of Maharashtra Website, March 5, 2020, Accessed on October 9, 2020, https://www.maharashtra.gov.in/

- Site/upload/WhatsNew/ESM\_2019\_20\_Eng\_Book.pdf
- 4. NITI Aayog, "SDG India Index & Dashboard, 2019-20", NITI Aayog Website, December 20, 2019, Accessed on October 9, 2020, https://niti.gov.in/sites/default/files/SDG-India-Index-2.0\_27-Dec.pdf
- 5. Unique Identification Authority of India, "State/ UT wise AADHAR Saturation Data", UIDAI website, May 31, 2020, Accessed on October 9, 2020, https://uidai.gov.in/images/state-wise-aadhaar-saturation.pdf

## PROFILE OF THE SAMPLE IN MAHARASHTRA:

- A total of 528 respondents (victims and household members) participated in the survey for the PSIA study. Among them, 113 respondents (21.4%) belonged to High Income Households (HIH), and 415 respondents (78.6%) belonged to Low Income Households (LIH). The average monthly household income for HIH was INR 2.01 lakhs, and for LIH, the income was INR 17,422. In addition, 113 truck drivers with an average income of INR 17,013 were included in the survey. 83.5% of the respondents were male road crash victims, and 16.5% were female road crash victims. As many as 107
- (20.3%) of the victims were chief wage earners. 42.4% of the victims live(d) in urban areas.
- 136 of the households had a family member that died as a result of the road crash (25.8%). About 16.3% of these victims died at the crash scene. In addition, 94 victims suffered from some disability (17.8%). Out of these, 56 victims (59.6%) developed a long term disability.
- The average estimated Out of Pocket Expenses borne by victims/ household members across households was INR 1,01,081. About 83% of the respondents received some form of compensation.

**TABLE 1: RESPONDENT PROFILE** 

Particulars	Maharashtra
Participants (#, %) in HIH	113 (21.4)
Average monthly household income for HIH (INR)	2,01,106
Participants (#, %) in LIH	415 (78.6)
Average monthly household income for LIH (INR)	17,422
Participants (#) as truck drivers	113
Average monthly income from driving profession for truck drivers (INR)	17,013
% of female victims	16.5
#, % crash deaths	(136) 25.8
#,% with major crash injury	(392) 74.2
#,% recovered with some disability	(94) 24.0*
#,% have long term mobility disability	(56) 59.6
% of victims who were chief wage earner	107 (20.3)

<sup>\*</sup>taken as a percentage figure of total major injuries.

## PROFILE OF VICTIMS BASED ON THE OUTCOME OF THE CRASH:

- Based on the outcome of the crash, most of the victims that died belonged to low income households. For urban areas, 54.2% of the victims that died belonged to LIH and in rural areas, 100% of the victims that died belonged to LIH.
- Further, it can be observed that 42.9% of the female victims that died in urban areas were from LIH and 57.1% of the female victims were from HIH. Whereas,

for males, the proportion of victims that died was higher for LIH in both urban and rural areas, with LIH comprising 70% of the male victims in urban areas, and 100% of the male victims in rural areas. 100% of the female victims that died in rural areas belonged to LIH.

 Proportion of female victims that survived in both urban and rural areas was higher for LIH than for HIH. The proportion of male victims that survived was higher for LIH than HIH in rural areas. However, for urban areas, the proportion of male victims that survived was higher for HIH than LIH.

#### CHART 1: HABITATION- WISE TRENDS OF ROAD CRASH OUTCOMES

Chart 1a: % of victims that survived in urban areas

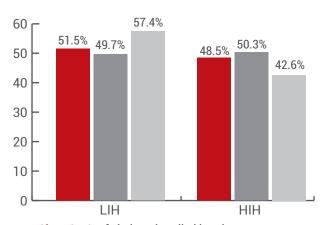


Chart 1c: % of victims that died in urban areas

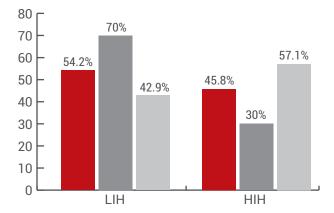


Chart 1b: % of victims that survived in rural areas

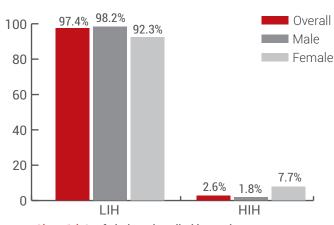
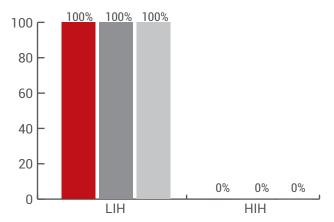


Chart 1d: % of victims that died in rural areas

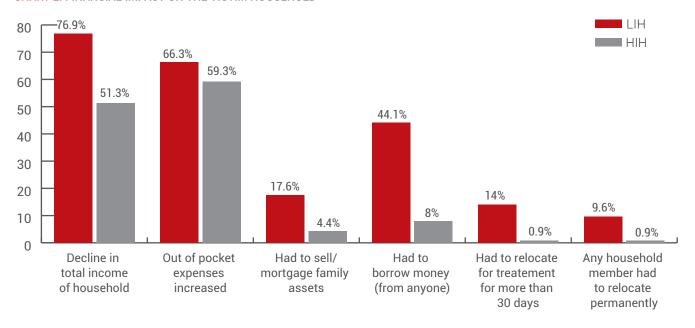


## FINANCIAL IMPACT OF ROAD CRASHES IN MAHARASHTRA:

76.9% of LIH admitted that there was a decline in total

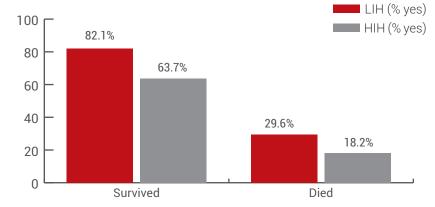
income of the household due to the road crash, while 51.3% of HIH admitted to the same. Further, a larger number of cases of OOPE, property sale, money borrowing, and relocation were observed in LIH than in HIH.

#### **CHART 2: FINANCIAL IMPACT ON THE VICTIM HOUSEHOLD**



Out of pocket expenditure (OOPE) is the payment made directly by individuals at the point of service where the entire cost of the health good or service is not covered under any financial protection scheme. The OOPE for LIH was about 1.6 times higher for LIH than for HIH. Total OOPE in Maharashtra was INR 1,10,029 for LIH, and INR 68,221 for HIH. 82.1% of the LIH where the victim survived admitted to paying OOPE, while 63.7% of the of the HIH where victims had survived admitted to paying OOPE.

**CHART 3:** % OF VICTIMS/FAMILIES THAT FACED OOPE

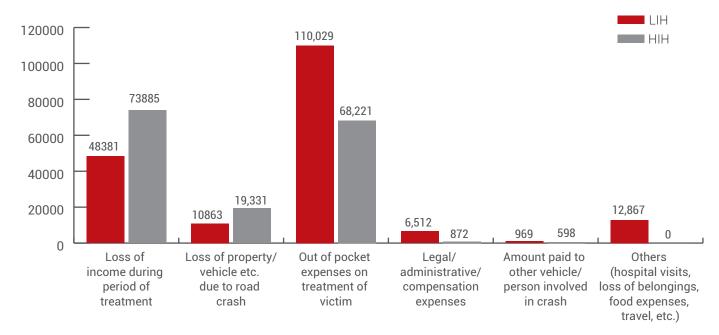


# LOSSES INCURRED DUE TO ROAD CRASHES:

The total losses faced by 415 low income households and 113 high income households was INR 1,89,621, and INR

1,62,907 respectively. As HIH have significantly higher income than LIH, the loss of income was higher for HIH than for LIH. Loss of property and legal expenses accounted for about 5.7% and 3.4% of LIH losses respectively, and 11.9% and 0.54% of HIH losses respectively. The breakup of the losses is as follows:

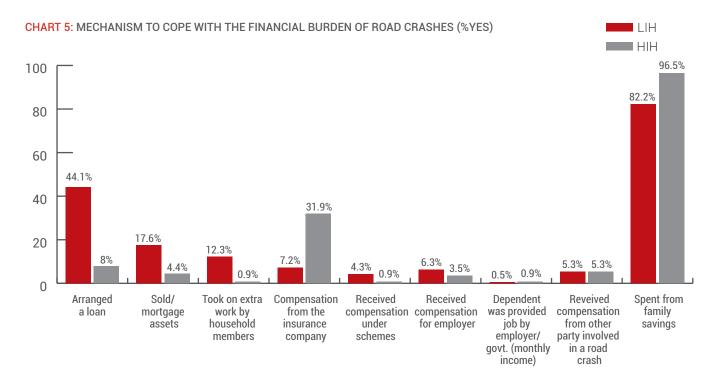
**CHART 4: LOSSES INCURRED DUE TO ROAD CRASH (INR)** 



#### MECHANISM TO COPE WITH FINANCIAL LOSSES:

About 44% of LIH had to arrange for a loan as opposed to 8% of HIH. Further, a larger proportion of LIH had to resort to selling assets, and taking on extra work than HIH.

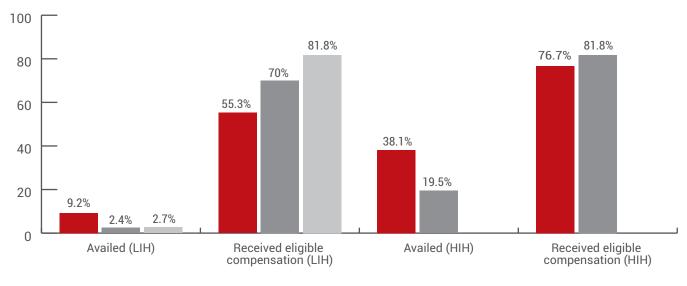
Interestingly, a larger proportion of HIH (96.5%) spent from family savings to cope with the losses than LIH (82.2%). This can be attributed to the fact that savings will be larger for HIH than for LIH.



# COMPENSATION AVAILED AND RECEIVED UNDER MOTOR VEHICLE, MEDICAL, AND LIFE INSURANCE SCHEMES:

- As low as 9.2% of LIH victims and 38.1% HIH victims/family members availed motor vehicle insurance compensation. Among those that availed compensation, just 55.3% of the LIH victims, and 76.7% of HIH victims received the eligible compensation. In terms of time taken, LIH victims received their compensation in about 10.5 months while HIH victims received it in about 3.1 months.
- Only 2.4% of LIH victims and 19.5% HIH victims/family members availed medical insurance compensation. Among those that availed compensation, 70% of the LIH victims, and 81.8% of HIH victims received the eligible compensation. In terms of time taken, LIH victims received their compensation in about 3.4 months while HIH victims received it in about 2.4 months.
- Only 2.7% of LIH victims/family members availed life insurance compensation. Among those that availed compensation, 81.8% of the LIH victims received the eligible compensation. In terms of time taken, LIH victims received their compensation in about 4.1 months. (\*Note: none of the HIH availed life insurance).

CHART 6: VICTIMS THAT AVAILED AND RECEIVED COMPENSATION FROM INSURANCE (% YES)

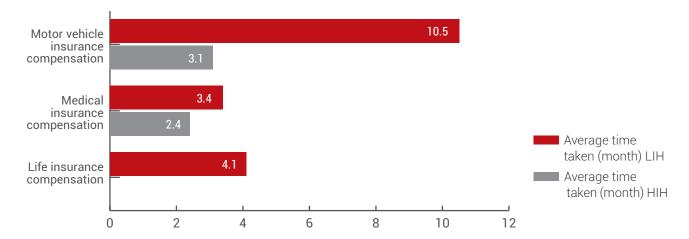


Motor vehicle insurance compensation

Medical insurance compensation

Life insurance compensation

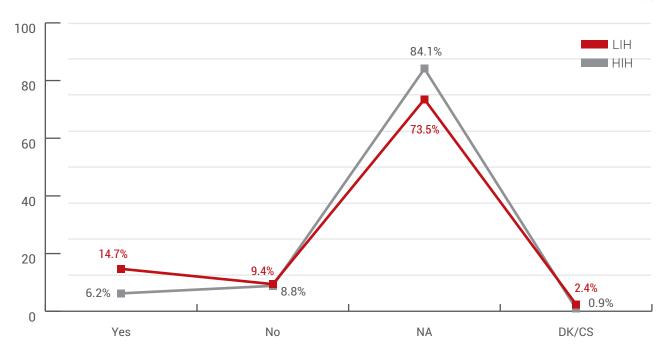
**CHART 7:** AVERAGE TIME TAKEN (MONTHS) TO RECEIVE COMPENSATION



#### DIFFICULTY IN AVAILING COMPENSATION:

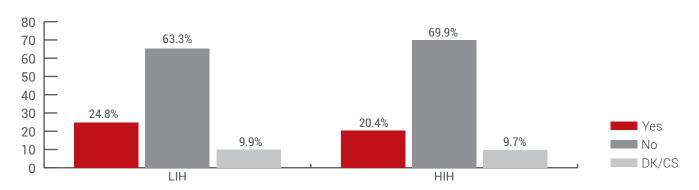
When asked about the difficulty in availing compensation, a larger proportion of LIH (14.7%) affirmatively responded than HIH (6.2%).

CHART 8: RESPONSES WHETHER VICTIM/ HOUSEHOLD MEMBER FACED ANY DIFFICULTY WHILE AVAILING COMPENSATION (%)



A larger percentage of LIH (24.8%) also admitted to filing a case in the Motor Accidents Claims Tribunal (MACT), than HIH (20.4%).

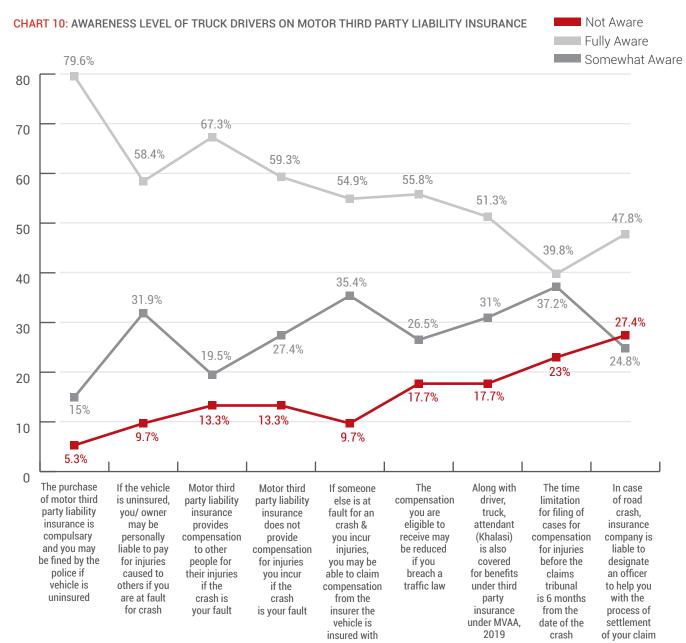
CHART 9: RESPONSES WHETHER VICTIM/ FAMILY FILED A CASE IN MACT (%)



#### TRUCK DRIVER'S AWARENESS LEVELS ON MOTOR THIRD PARTY LIABILITY INSURANCE:

Among the 113 truck drivers surveyed in Maharashtra, a relatively high proportion of truck drivers (17.7%) were unaware that the attendant or khalasi is also covered

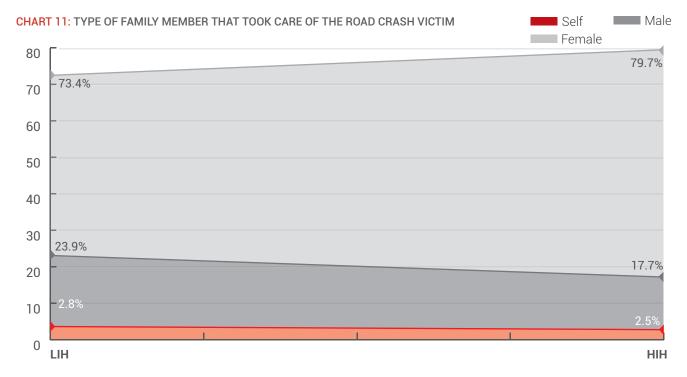
under the motor third party liability insurance under the Motor Vehicles (Amendement) Act, 2019. 23% of the truck drivers were unaware about the time limit for filing cases for compensation, which is 6 months from the crash occurrence. Further, as high as 27.4% of the drivers were unaware about the insurance company's liability to designate an officer to assist claimants in the claim settlement process.



#### TYPE OF CAREGIVER FOR VICTIM:

In the case of both LIH and HIH, the majority of the victims had a female family member as their caregiver (73.4% for

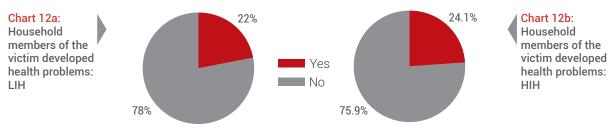
LIH and 79.7% for HIH). Interestingly, there was a greater proportion of male caregivers from LIH (23.9%) than HIH victims (17.7%).



#### **HEALTH IMPACT ON HOUSEHOLD MEMBERS WITH VICTIMS:**

22% of the victims from LIH admitted that their family/ household members developed health problems post crash, and 24.1% of the HIH victim household members developed health problems post crash.

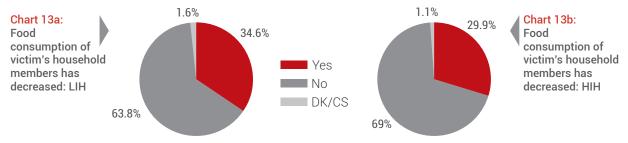
CHART 12: RESPONSES ON WHETHER HEALTH PROBLEMS DEVELOPED IN HOUSEHOLD MEMBERS



#### FOOD CONSUMPTION STATUS OF HOUSEHOLD MEMBERS OF THE VICTIM:

As high as 34.6% of the LIH victim's household members admitted that their food consumption has decreased post crash, while 29.9% of the HIH victim's household members admitted that their food consumption has decreased post crash.

CHART 13: RESPONSES ON WHETHER FOOD CONSUMPTION FOR HOUSEHOLD MEMBERS DECREASED



#### PROPORTION OF VICTIMS THAT FACED ANY DISABILITY:

In Maharashtra, a higher proportion of LIH victims faced disabilities than HIH victims. 88 (30.3%) of the respondents from LIH, and 6 (5.9%) of the respondents from HIH reported a disability. Among them, 42% of LIH reported a serious disability (\*Note: HIH did not report serious disability).

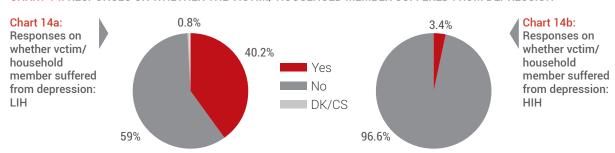
**TABLE 2: RESPONSES ON WHETHER VICTIMS FACED A DISABILITY** 

Particulars	LIH		нін	
	N	%Yes	N	%Yes
Maharashtra	290	30.30%	102	5.90%

#### PROPORTION OF HOUSEHOLDS, WHERE FAMILY MEMBERS FACED DEPRESSION

In Maharashtra, 40.2% of LIH and 3.4% of HIH reported that the victim or a household member suffered from depression post the crash.

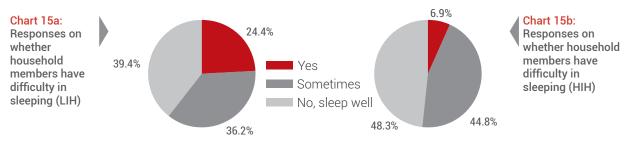
#### CHART 14: RESPONSES ON WHETHER THE VICTIM/ HOUSEHOLD MEMBER SUFFERED FROM DEPRESSION



#### DIFFICULTY IN SLEEPING FOR THE HOUSEHOLD MEMBERS POST CRASH:

In Maharashtra, as high as 24.4% of the household members from LIH faced difficulty in sleeping, while 6.9% of the household members from HIH faced the same.

#### CHART 15: RESPONSES ON WHETHER HOUSEHOLD MEMBERS HAVE DIFFICULTY IN SLEEPING



#### **EMPLOYMENT STATUS OF VICTIMS:**

In Maharashtra, LIH on an average, took 77 more days than HIH to return to their previous occupation, with LIH taking an average of 122 days to return to their occupation and HIH taking 45 days for the same. Further, on an average it took LIH 189 days, and HIH 84 days to find a new occupation.

# RESPONSES ON WHETHER AN FIR WAS FILED FOR THE ROAD CRASH THAT THE VICTIM WAS INVOLVED IN:

In Maharashtra, 52.5% of the LIH and 75.2% of the HIH claim that no FIR was filed for the road crash case that the victim was involved in.

CHART 16: WAS AN FIR FILED FOR THE ROAD CRASH THAT THE VICTIM WAS INVOLVED IN?

