

TRAFFIC CRASH INJURIES AND DISABILITIES: THE BURDEN ON INDIAN SOCIETY



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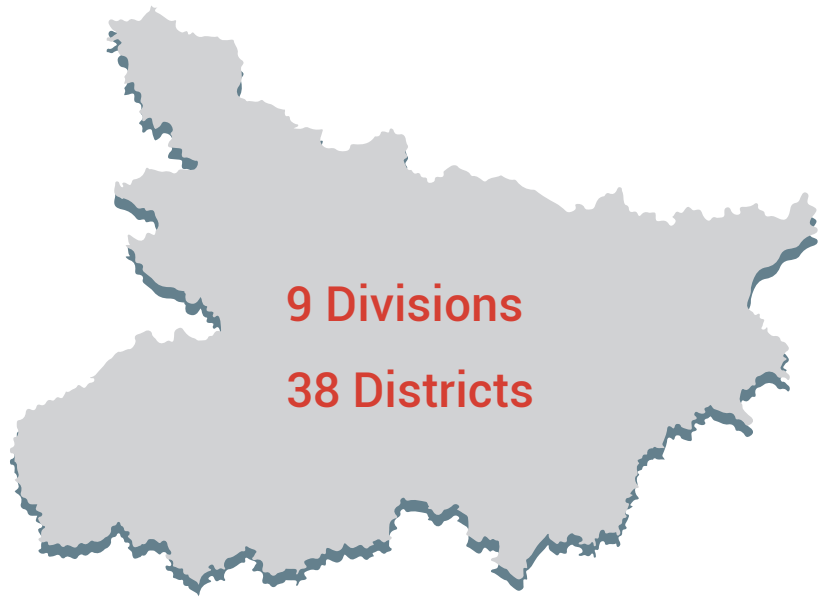
This state fact sheet highlights the impact of road crashes on people belonging to different social categories in the state. The fact sheet uses data from the 2021 study titled "Traffic Crash Injuries and Disabilities: The Burden on Indian Society". The fact sheet depicts data on the average costs of road crashes, insurance compensation, disability status, and so on.

Save LIFE
FOUNDATION
IMPROVING ROAD SAFETY AND EMERGENCY CARE ACROSS INDIA

Bihar is an eastern state in India, which is the second most populated state in the country. With 9 divisions and 38 districts, the state has a 2020 projected population of 12.47 crores⁵, with a nominal Gross State Domestic Product (GSDP) in 2018-19 of INR 5,57,490 crore³. The nominal per capita GSDP of Bihar was INR 47,541 in 2018-19. The urbanisation rate in Bihar is low, and most of the state's population resides in rural areas. As of 2011, only 11.3% of Bihar's population resides in urban areas.

Bihar recorded 62,46,000¹ registered vehicles as of March, 2017. The state also witnessed 10,007 road crashes and 7205² road crash deaths in 2019 alone, making it the state with the 9th 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, Bihar has been categorised as a "Low Capacity State" in this study. Bihar also has a low female literacy rate. As of 2011, the female literacy rate in the state was just 51.5%, while male literacy rate was 71.2%³. In terms of State performance on meeting the SDG goals, Bihar scores 50 on the index. This indicates that Bihar has met its half way mark in meeting the SDG targets for 2030⁴. The state has also scored only 33 on the SDG of no poverty, which is the second lowest score in the country.



Population 12.47 Crores



2017 62,46,000 Registered vehicles



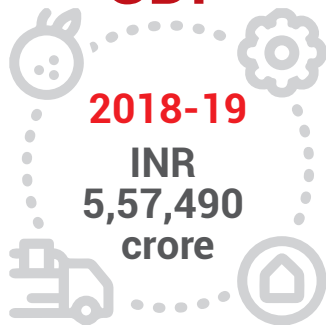
2019
10,007
road
crashes



2019
7205
road crash
deaths

9th
highest road
crash
deaths in 2019

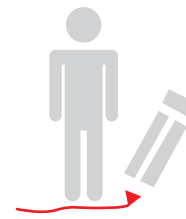
GDP



2018-19
INR
5,57,490
crore



2011
51.5%
female
literacy
rate



2011
71.2%
male
literacy
rate

1. 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. Finance Department of Government of Bihar, "Bihar Economic Survey 2019-20", Finance Department Website, February, 2020, Accessed on October 9, 2020, <http://finance.bih.nic.in/Reports/Economic-Survey-2020-EN.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 BIHAR:

A total of 527 respondents (victims and household members) participated in the survey for the PSIA study. Among them, 115 respondents (21.8%) belonged to High Income Households (HIH), and 412 respondents (78.2%) belonged to Low Income Households (LIH). The average monthly household income for HIH was INR 2.99 lakhs, and for LIH, the income was INR 15,637. In addition, 101 truck drivers with an average income of INR 20,743 were included in the survey. 86.1% of the respondents were male road crash victims, and 13.9% were female road crash victims. As many as 138 (26.2%) of the victims were chief

wage earners. 39.3% of the victims live(d) in urban areas.

185 of the households had a family member that died as a result of the road crash (35.1%). About 19.5% of these victims died at the crash scene. In addition, 118 victims suffered from some disability (22.4%). Out of these, 76 victims (64.4%) developed a long term disability.

The average Out of Pocket Expenses borne by victims/household members across households was INR 58,023. About 67% of the respondents received some form of compensation.

TABLE 1: RESPONDENT PROFILE

Particulars	Bihar
Participants (#, %) in HIH	115 (21.8)
Average monthly household income for HIH (INR)	2,99,130
Participants (#, %) in LIH	412 (78.2)
Average monthly household income for LIH (INR)	15,637
Participants (#) as truck drivers	101
Average monthly income from driving profession for truck drivers (INR)	20,743
% of female victims	13.9
#, % crash deaths	(185) 35.1
#, % with major crash injury	(342) 64.9
#, % recovered with some disability	(118) 34.5*
#, % have long term mobility disability	(76) 64.4
% of victims who were chief wage earner	138 (26.2)

*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, 77.8% of the victims that died belonged to LIH and in rural areas, as high as 98.2% of the victims that died belonged to LIH.
- Further, it can be observed that for both LIH and HIH, an equal proportion of female victims died in urban areas.

Whereas, for males, the proportion of victims that died was higher for LIH in both urban and rural areas. 98.3% of the female victims that died in rural areas belonged to LIH.

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

CHART 1: HABITATION- WISE TRENDS OF ROAD CRASH OUTCOMES

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

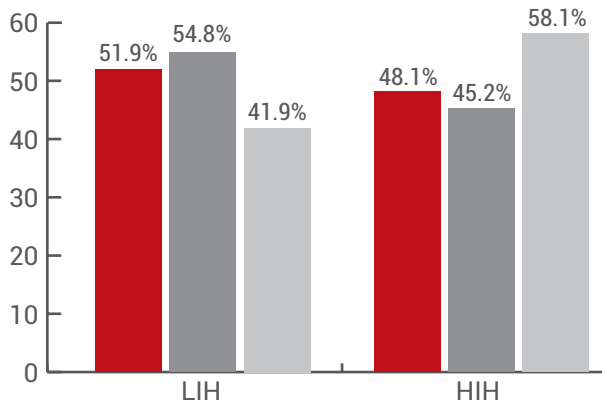


Chart 1b: % of victims that survived in rural areas

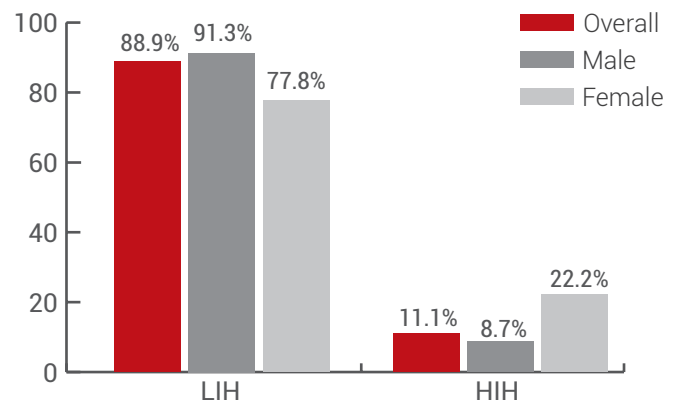


Chart 1c: % of victims that died in urban areas

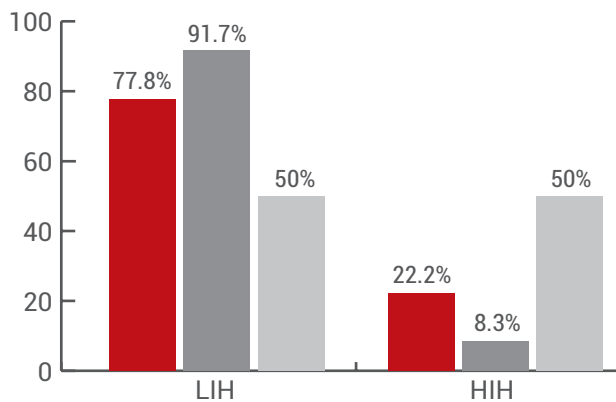
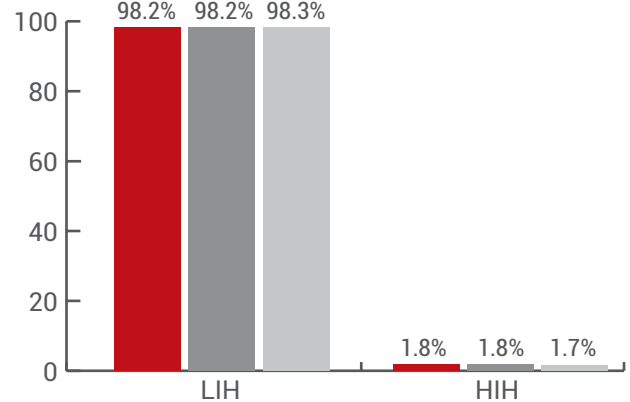


Chart 1d: % of victims that died in rural areas

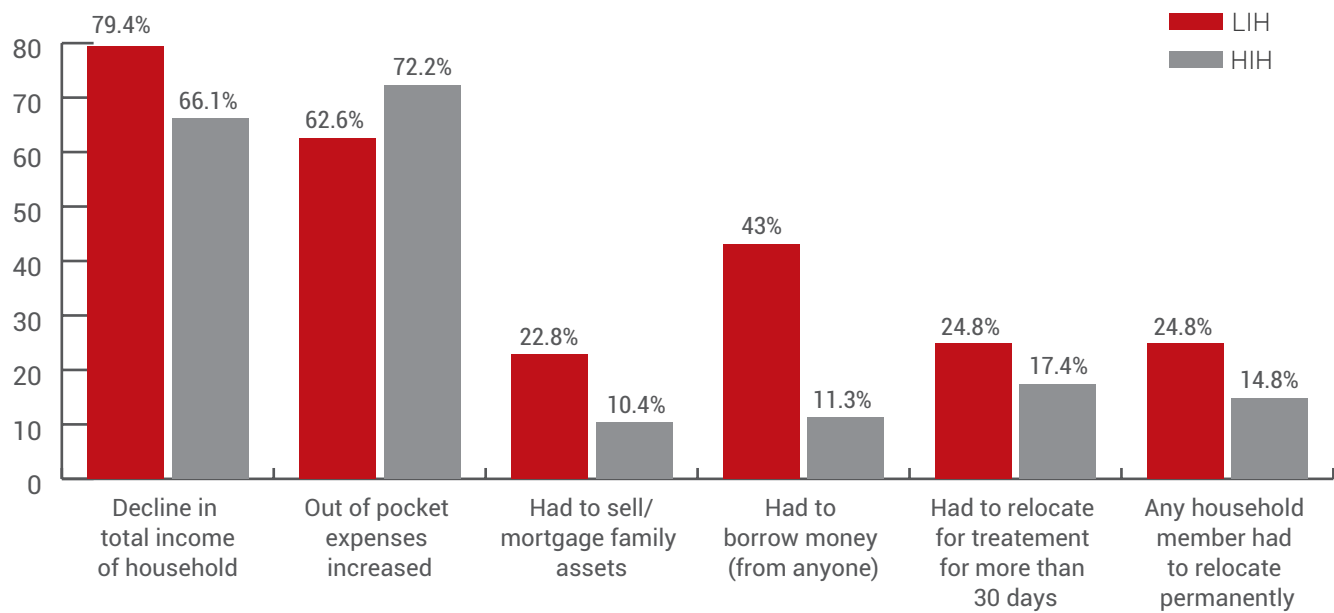


FINANCIAL IMPACT OF ROAD CRASHES IN BIHAR:

79.4% of LIH admitted that there was a decline in total income of the household due to the road crash, while 66.1% of HIH admitted to the same.

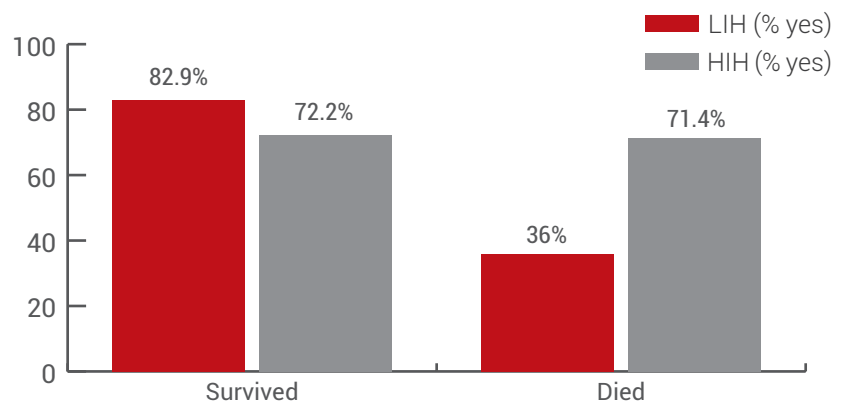
Further, a larger number of cases of property sale, money borrowing, and relocation were observed in LIH than in HIH. Interestingly, a larger proportion of HIH reported OOPE than LIH. This can be due to the fact that HIH can afford better quality treatment than LIH.

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 was about 2.5 times higher for LIH than for HIH. Total OOPE was INR 66,659 for LIH, and 27,083 for HIH. 82.9% of the LIH where the victim survived the crash admitted to paying OOPE, while 72.2% of the of the HIH where victims survived admitted to paying OOPE.

CHART 3: % OF VICTIMS/FAMILIES THAT FACED OOPE

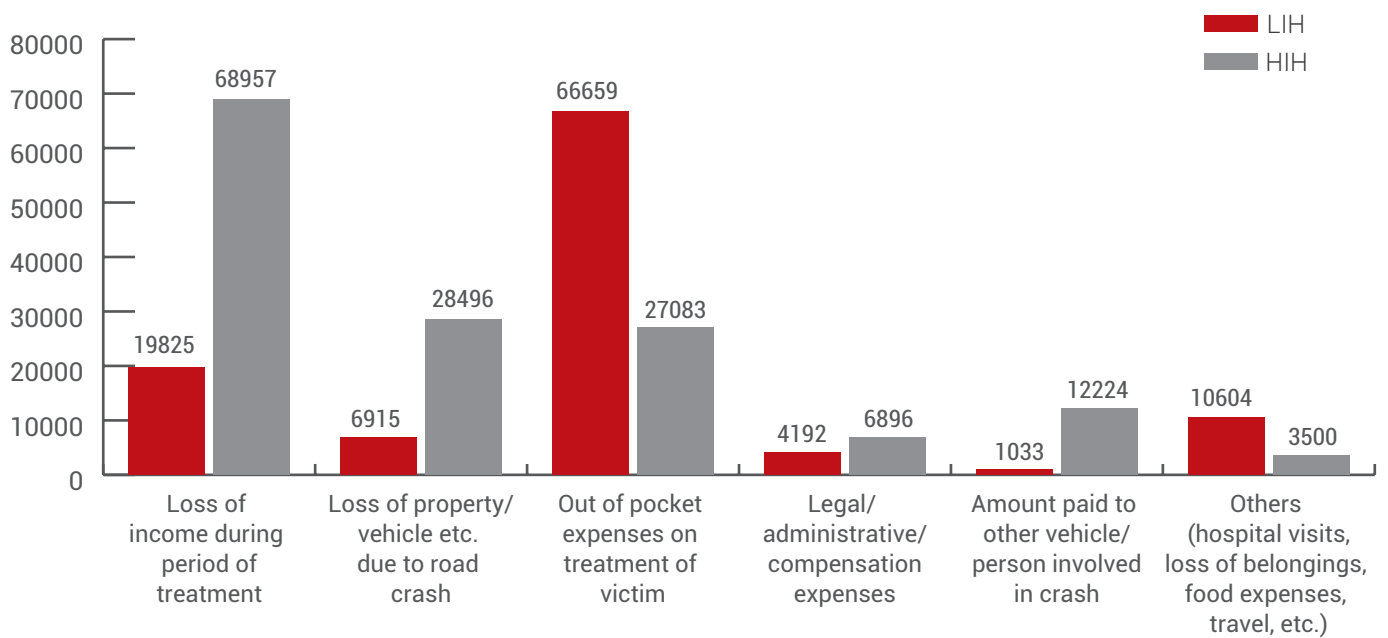


LOSSES INCURRED DUE TO ROAD CRASHES:

The total losses faced by 412 low income households and 115 high income households was INR 1,09,227 and

INR 1,47,156 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 6.3% and 3.8% of LIH losses respectively, and 19.4% and 4.7% of HIH losses respectively. The breakup of the losses is as follows:

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

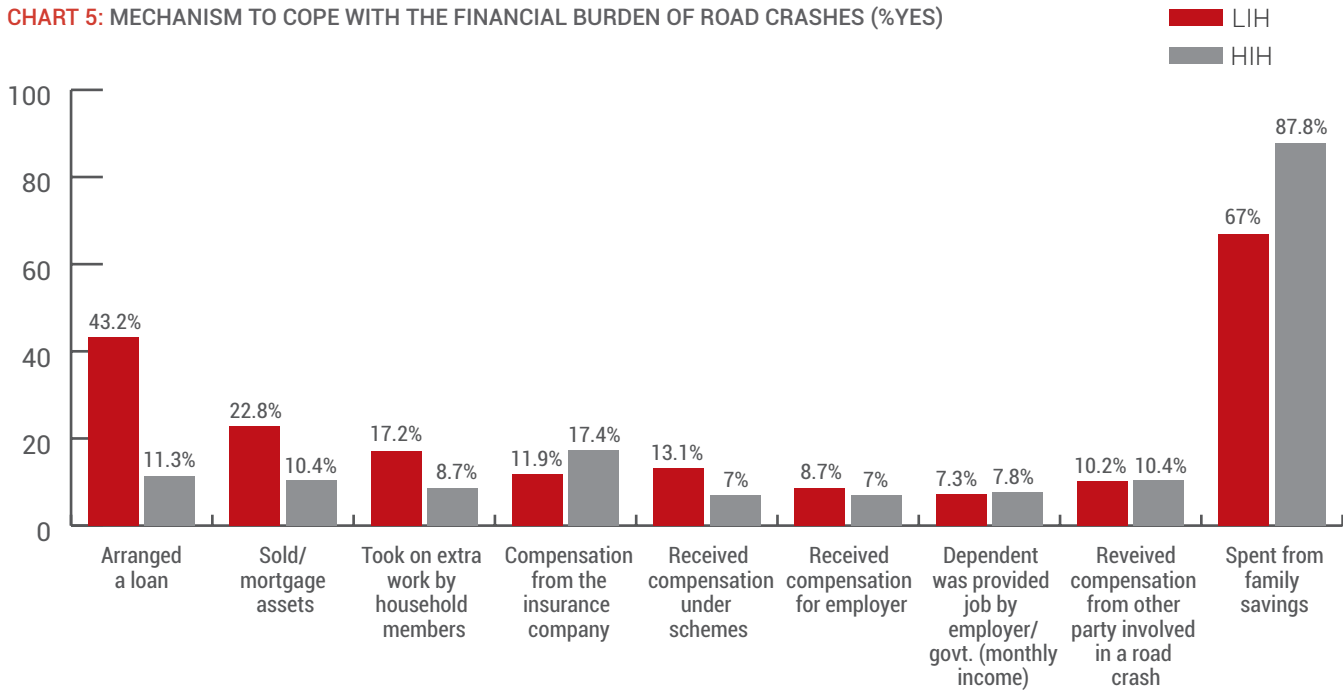


MECHANISM TO COPE WITH FINANCIAL LOSSES:

About 43% of LIH had to arrange for a loan as opposed to 11.3% 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 (87.8%) spent from family savings to cope with the losses than LIH (67%). This can be attributed to the fact that savings will be larger for HIH than for LIH.

CHART 5: MECHANISM TO COPE WITH THE FINANCIAL BURDEN OF ROAD CRASHES (%YES)



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

- As low as 10.7% of LIH and 21.7% HIH victims/family members availed motor vehicle insurance compensation. Among those that availed compensation, just 59.1% of the LIH victims, and 48% of HIH victims received the eligible compensation. In terms of time taken, LIH victims received their compensation in about 12.6 months while HIH victims received it in about 17.6 months.
- Only 8.7% of LIH victims and 20.9% HIH victims/family

members availed medical insurance compensation. Among those that availed compensation, 69.4% of the LIH victims, and 45.8% of HIH victims received the eligible compensation. In terms of time taken, LIH victims received their compensation in about 2.8 months while HIH victims received it in about 2.6 months.

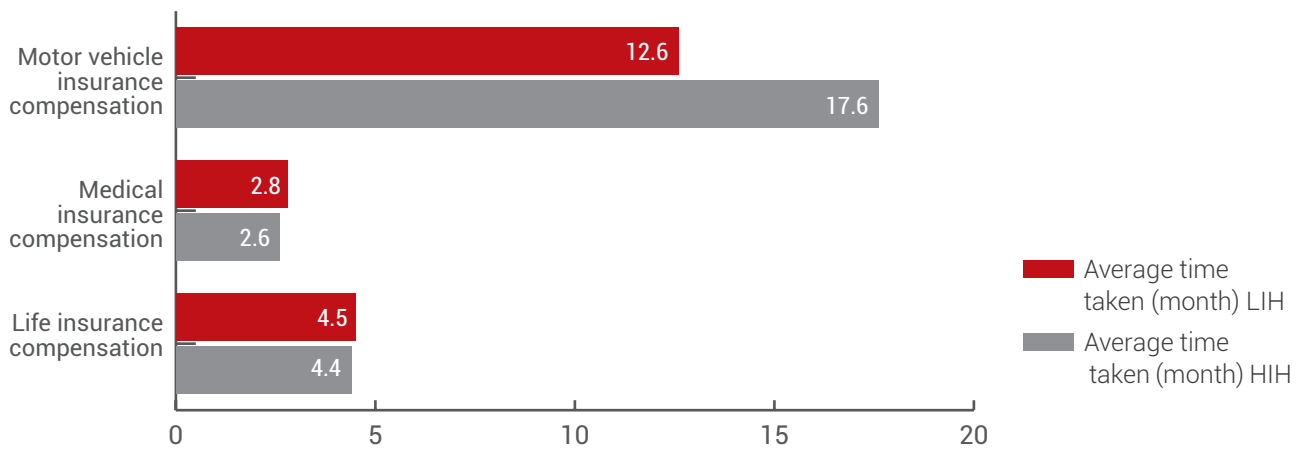
- A mere 4.1% of LIH victims and 4.3% HIH victims/family members availed life insurance compensation. Among those that availed compensation, 76.5% of the LIH victims, and 100% of HIH victims received the eligible compensation. In terms of time taken, LIH victims received their compensation in about 4.5 months while HIH victims received it in about 4.4 months.



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



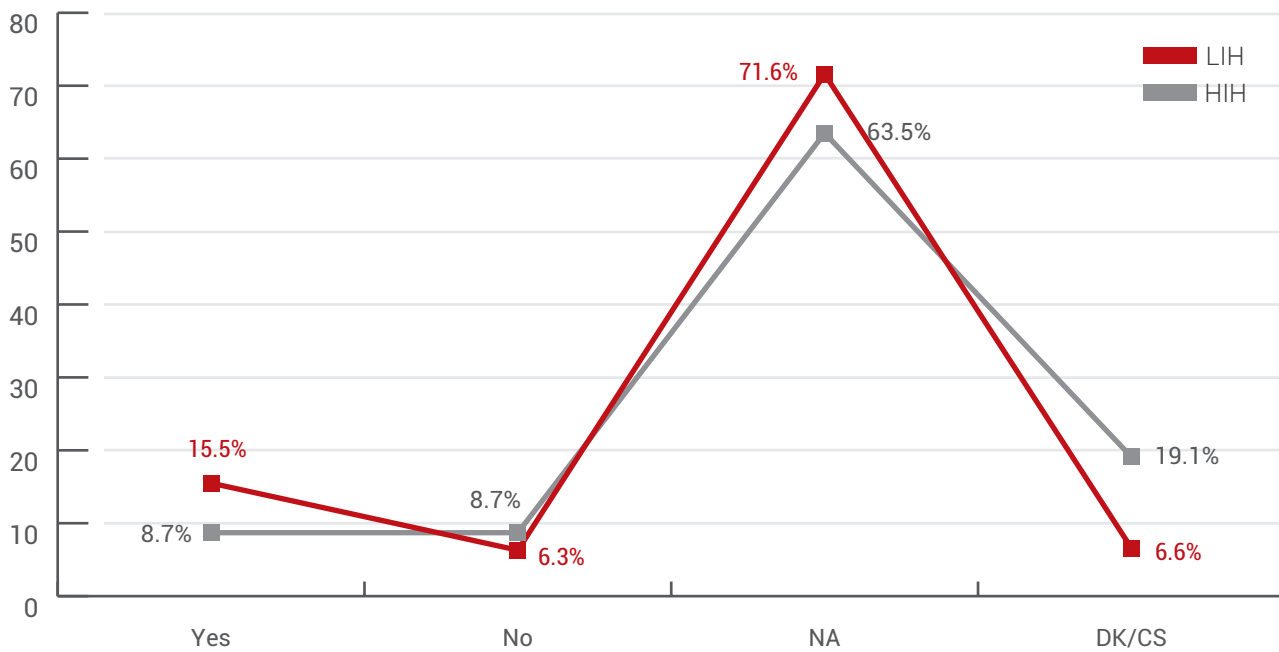
CHART 7: AVERAGE TIME TAKEN (MONTHS) TO RECEIVE COMPENSATION



DIFFICULTY IN AVAILING COMPENSATION:

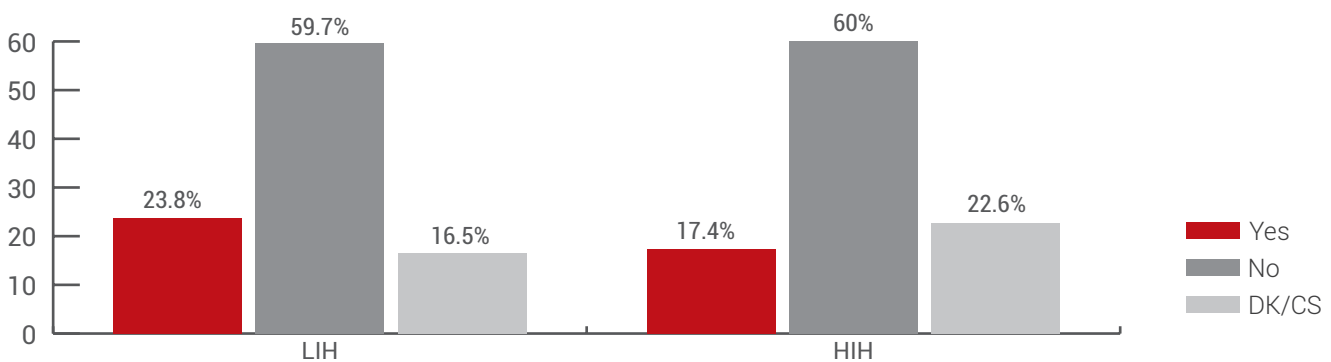
When asked about the difficulty in availing compensation, a larger proportion of LIH (15.5%) affirmatively responded than HIH (8.7%).

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



A larger percentage of LIH (23.8%) also admitted to filing a case in the Motor Accidents Claims Tribunal (MACT), than HIH (17.4%).

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

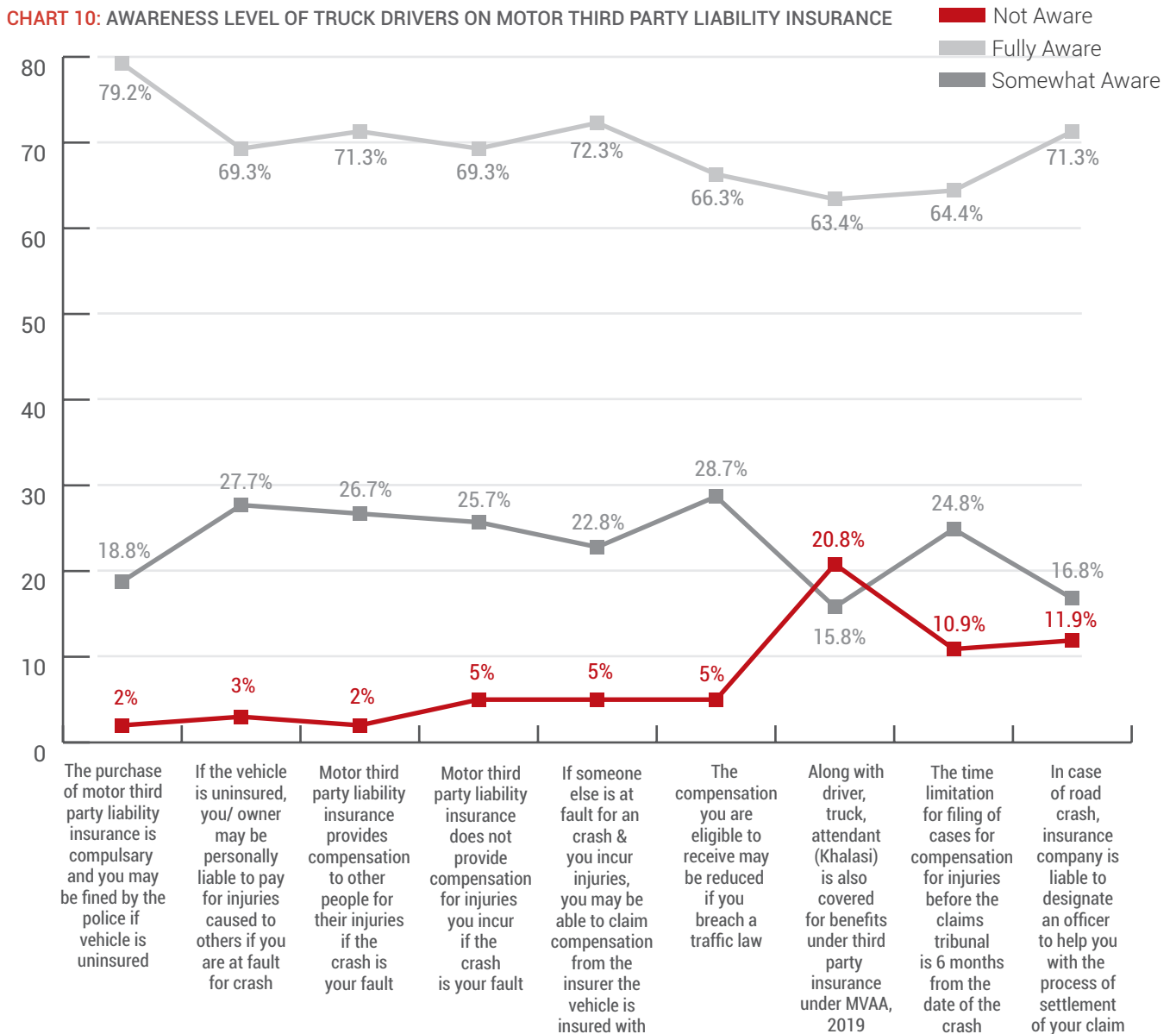


TRUCK DRIVER'S AWARENESS LEVELS ON MOTOR THIRD PARTY LIABILITY INSURANCE:

Among the 101 truck drivers surveyed in Bihar, a relatively high proportion of truck drivers (20.8%) were unaware that the attendant or khalasi is also covered under the motor

third party liability insurance under the Motor Vehicles (Amendment) Act, 2019. There was also relatively less awareness about the time limit for filing cases for compensation, which is 6 months from the crash occurrence, and about the insurance company's liability to designate an officer to assist claimants in the claim settlement process.

CHART 10: AWARENESS LEVEL OF TRUCK DRIVERS ON MOTOR THIRD PARTY LIABILITY INSURANCE

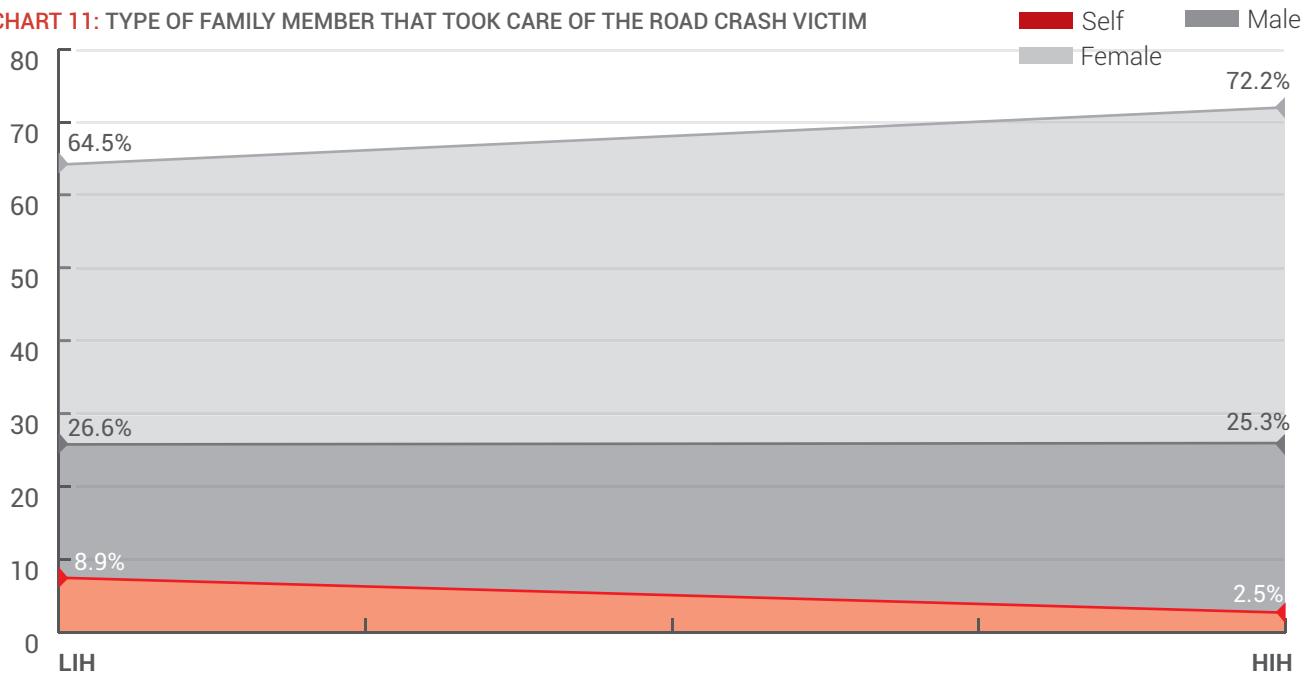


TYPE OF CAREGIVER FOR VICTIM:

In the case of both LIH and HIH, the majority of the victims had a female family member as their caregiver (64.5% for

LIH and 72.2% for HIH). Interestingly, there was a greater proportion of victims from LIH (8.9%) that took care of themselves post the crash than HIH victims (2.5%).

CHART 11: TYPE OF FAMILY MEMBER THAT TOOK CARE OF THE ROAD CRASH VICTIM



HEALTH IMPACT ON HOUSEHOLD MEMBERS WITH VICTIMS:

37% of the victims from LIH admitted that their family/ household members developed health problems post crash, as opposed to HIH victims, where 16.9% of the victim household members developed health problems post crash.

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

Chart 12a:
Household members of the victim developed health problems: LIH

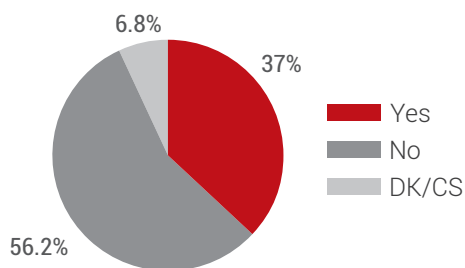
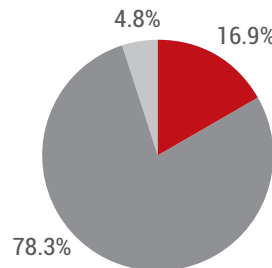


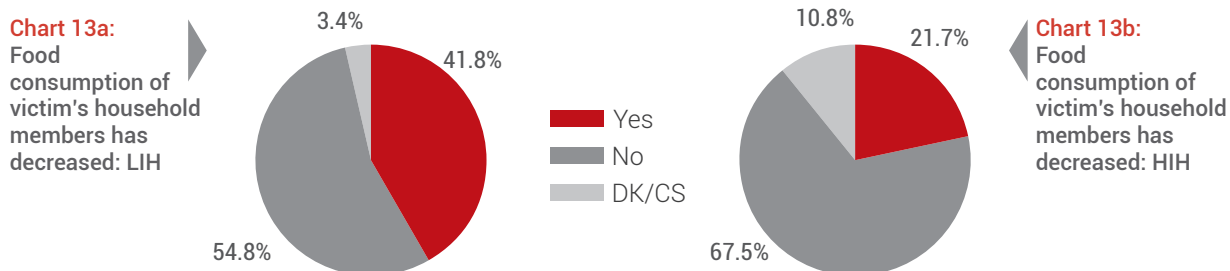
Chart 12b:
Household members of the victim developed health problems: HIH



FOOD CONSUMPTION STATUS OF HOUSEHOLD MEMBERS OF THE VICTIM:

As high as 41.8% of the LIH victim's household members admitted that their food consumption has decreased post crash, while 21.7% 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 Bihar, a higher proportion of LIH victims faced disabilities than HIH victims. 99 (42.3%) of the respondents from LIH, and 19 (17.6%) of the respondents from HIH reported a disability. Among them, 45.5% of LIH and 21.1% of HIH reported a serious disability.

TABLE 2: RESPONSES ON WHETHER VICTIMS FACED A DISABILITY

Particulars	LIH		HIH	
	N	%Yes	N	%Yes
Bihar	234	42.30%	108	17.60%

PROPORTION OF HOUSEHOLDS, WHERE FAMILY MEMBERS FACED DEPRESSION

In Bihar, 52.7% of LIH and 33.7% 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

Chart 14a: Responses on whether victim/ household member suffered from depression: LIH

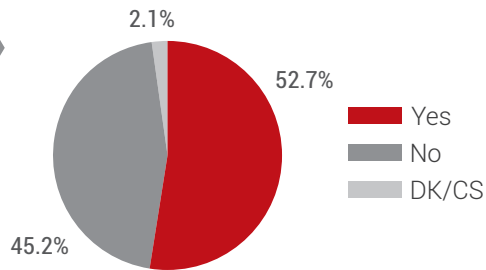
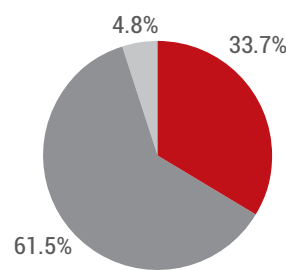


Chart 14b: Responses on whether victim/ household member suffered from depression: HIH



DIFFICULTY IN SLEEPING FOR THE HOUSEHOLD MEMBERS POST CRASH:

In Bihar, as high as 30.1% of the household members from LIH faced difficulty in sleeping, while 18.1% of the household members from HIH faced the same.

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

Chart 15a: Responses on whether household members have difficulty in sleeping (LIH)

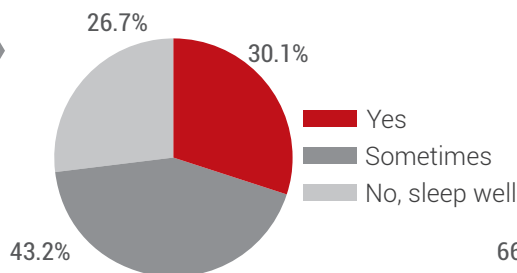
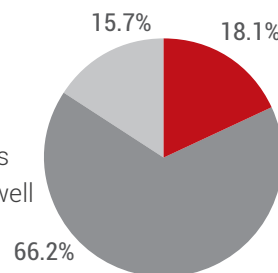


Chart 15b: Responses on whether household members have difficulty in sleeping (HIH)



EMPLOYMENT STATUS OF VICTIMS:

In Bihar, LIH on an average, took 88 more days than HIH to return to their previous occupation, with LIH taking an average of 134 days to return to their occupation and HIH taking 46 days for the same. Further, on an average it took LIH 40 days, and HIH 29 days to find a new occupation.

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

In Bihar, 51.5% of the LIH and 58.3% 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?

