DISCUSSION
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The present study has been undertaken in Bundelkhand region on admitted patients of accidental injuries, who attended M.L.B. Medical College, and associated hospitals which run the casualty facilities round the clock. The period of study was from 1 January, 1989 to 31 December, 1989. During this period, 1,000 cases of accidental injuries attended in patient and out patient departments.

INCIDENCE

One of aims study aimed to investigate the rate of accidental injuries in Bundelkhand region. Bundelkhand region in fact, consists of 11 districts - 5 of Uttar Pradesh and 6 of Madhya Pradesh. Though the present study included cases only from these districts yet, there is possibility that some cases of accidental injury belonging to these districts, might have gone to the hospital for treatment which were not included in present study. Due to this reason, it was not possible to work out the accurate incidence rate of accidental injuries studied.

AGE AND SEX

The present study showed that maximum (61.90%) cases of accidents were found between 16-44 years of age group, while minimum (2.5%) cases were in the age group of
0-5 years. According to Gill et al (1977) maximum cases of accidents (51.25%) occur amongst school going age group.

The second maximum number of accidents (21.90%) were recorded in age group 45 years or above and the third common age group was 6-15 years. 14.20 percent accidents were observed in this group. The maximum (71.90 percent) accidents were occurred in by motor vehicle in the age group of 16-44 years in both the sexes.

The highest (78.9%) number of accidents were recorded in males as compared to females in all age groups. While Gill et al (1977) have also recorded maximum number of accidents in males. The age group of 16-44 years showed maximum difference; males accounted for 52.80 percent and females 8.60 percent.

RELIGION IN RELATION TO ACCIDENTS

In the table 3, shows that the most obvious findings were that Hindus constituted the majority (92.50%) of the total. Muslims behind this having 5.50 percent, Christian accounted for 1.20 percent, and Sikh and other contributed 0.80 percent in this study.

In motor vehicle accidents Hindus were more involved. They contributed 92.35 percent accidents because the population of Hindus is higher than others. Muslims contributed only 6.42 percent.

In other transport accidents Hindus accounted for 93.58 percent and Muslims contributed only 2.67 percent.
Accidents caused by falls, Hindus accounted for 92.33 percent which was more in all types of accidents and also Muslims contributed 5.75 percent. 94.74% accidents caused by machinery were occurred in Hindus while Muslims contributed only 5.26 percent.

Hindus were having higher number of accidents in respect to all types of accidents as (Table 2) compared to Muslims, Sikh and others.

EDUCATION IN RELATION TO ACCIDENTS

The present study showed that illiterate patients were having 46.60 percent accidents, primary educated cases accounted for 15.40 percent while secondary and college/higher educated patients contributed 20.20 percent, 17.90 percent respectively.

There was some variation in different types of accidents. In motor vehicle accidents, 20.18 percent accidents were occurred in illiterate group and 14.99 percent in primary educated group. 22.94 percent were in secondary educated patients. Patients having college/higher education contributed 41.90 percent.

In other transport accidents illiterate patients accounted for 59.90 percent, primary educated patients were having 12.46 percent and secondary, college/higher educated cases were having 18.18 and 6.42 percent respectively.

In accidental falls group, the majority (66.57%) were occurred in illiterate cases, 12.46 percent in primary
educated cases, 15.97 percent in secondary educated and 4.79 percent in college higher educated patients.

Accidents caused by machinery were more commonly occurred in patients of primary education (36.84%) and secondary educated cases having 28.07%. This is probably due to the larger number of machines and other craftsmen involved who usually study up to secondary stage.

Majority of illiterate cases having all other accidents were 62.67 percent, while primary, secondary, college/higher educated cases less involved in accidents.

The figures suggested that persons of primary and secondary educated people were more at risk as compared to illiterate and those of higher educated in this study. Rastogi (1962) found that in Kanpur industries workers with higher education had lower accidents. Perhaps it was in the same for non-industrial persons as well.

PLACE OF RESIDENCE IN RELATION TO ACCIDENT

Table 5 shows the distribution of the accidental cases according to their residence. A vast majority (71.30 percent) cases were from rural areas and only 28.70 percent were from urban.

Motor vehicle accidents were occurred in urban population (29.9%) and 70.03 percent in patients from rural areas. Of all urban patients, 34.15 percent had motor vehicle accidents while rural cases involved in motor vehicle accidents only 32.11 percent. This shows that relatively
more urban persons had automobile accidents. It may be
due to differential exposure to hazards.

In other transport accidents, 67.38 percent cases
were from rural areas and 32.62 percent were from urban area.

Accidental falls were more common in rural cases
than urban dwellers. 71.88 percent falls were occurred in
rural cases and 28.12 percent in urban patients. As shown
in table 11, many of these occurred in field, from trees
and other heights in connection with occupation. Probably
rural areas which abound to farm and tree, therefore, acco-
unted for a disproportionately large number of falls.

Accidents caused by machinery were about 5 times
more commoner in patients from rural areas than from urban
areas i.e. 82.46 percent and 17.54 percent.

Similar accidents due to explosion in rural cases
and urban were 72.41 and 27.59 percent respectively.

Accidents due to gun shot were three times more
in rural cases as compared to urban patients. Because of
the rural population is much more than urban population in
Bundelkhand region.

In all other accidents also, rural patients were
more affected than cases residing in towns. The rural
accounted 74.67% and urban group contributed 25.33 percent.

Considering the total, the cases residing in rural
areas had 71.30 percent injuries as against 28.70% of urban.
SOCIAL CLASS IN RELATION TO ACCIDENTS

All the cases were divided by the modified classification given by Prasad et al (1980).

The most affected social class was class III with 62.20 percent accidents. The next social class IV accounted for 21.60 percent and social class II has 14.60 percent and social class V was having 2.40 percent of accidents. Social class I (more than Rs. 600/- per head per month) had least accidents (1.2 percent).

Patients of social class III were having more automobile accidents (58.18%) than social class II who had 19.57 percent accidents.

94.50 percent patients were involved in social class II, III and IV. Social class II to IV often travelled in buses and have same risk. Actually this increase was due to collision of bus with trees. Accidents were less in number in social class I and V. Probably social class I uses car with trained driver and take more precautions due to having higher education.

Bundelkhand is hilly area, road development is not good at many places, because of uneven topography. Social class V patients used to walk on foot longer distance lowest income group also a major factors among them. So social class V patients were less involved.

In other transport accidents, most common social class III patients were involved having 68.45 percent while social class IV and II accounted for 18.72 and 12.83 percent respectively.
Accidents caused by falls were occurred in 60.70 percent of class III while social class II and IV contributed only 25.24 percent and 10.86 percent respectively.

In accidents caused by machinery group, 77.19 percent accidents were occurred in social class III while 15.79 percent in social class IV and 7.02 percent in class V. But social class I and II had no machinery accidents.

Social class III was more affected by accidents caused by explosion with 39.49 percent accidents while class II and IV had same only 31.03 percent of accidents. Accidents caused by Gun shot was found highest in social class III (83.34%) while in social class IV and V had same only 8.30 percent accidents.

Accidents caused by other causes, social class III was more involved.

Thus general observation remained that lower socio-economic status was more involved in accidents. There may be indirect relationship between socio-economic status and accidents.

Several surveys in Europe and U.S.A. showed relationship between poverty and domestic accidents. This may be related to poor housing. But British Medical Association found only slight association (WHO, 1965).

Poorer people had more accidents and more serious accidents (WHO, 1985). It needs further study to know what are the various causes.
MARITAL STATUS IN RELATION TO ACCIDENTS

Married patients had more accidents than unmarried cases. Former accounted for 68.40 percent and latter 30.20 percent. This is because of married population structure is vast. The widows contributing only 1.4 percent as a whole.

Motor vehicle accidents were commoner in married people in this series. They accounted for 73.09 percent of the motor vehicle accidents. The unmarried persons contributed 25.69 percent, while widows having only 1.22 percent.

These findings do not agree with the usual observations in Western countries that married patients had less motor vehicle accidents than unmarried or single patients. (Haddon et al, 1961; McCarrol et al, 1962; WHO, 1962 and 1966).

In other transport accidents, unmarried patients contributed 37.97 percent while married patients accounted for 60.96 percent while widows accounted for 1.07 percent.

Accidentals falls were common in married patients where it accounted for 64.20 percent while unmarried cases contributed 33.87 percent and widow only 1.92 percent.

McQueen (1960) observed that in Scotland widowed persons relatively more falls. Perhaps this more related to age rather than widowhood itself, widowed persons more likely to be old than younger, though other factors like lonliness, lack of care of self may relevant too. But in this study accidental fall is minimum in widowed persons.

In all types of accidents married cases had higher number of accidents because of married persons were more in communities.
TIME IN RELATION TO ACCIDENTS

The time wise distribution of accidents has been shown in table 8. Maximum (28.90%) accidents occurred during the evening hours (2-7 PM). Minimum accidents (12.30%) during morning hours (5-10 AM). Second highest accidents (28.10%) occurred during early night (7-12 night). Third highest total accidents occurred during late night (12-5 AM) (18.30%).

In noon time (10 AM to 2 PM), 10.40 percent accidents occurred.

In motor vehicle accidents, highest number were occurring during evening hours (2 PM to 7 PM) when there is a huge crowd of students, and persons returning from school and offices respectively. This accounted for 33.64 percent. It is surprising that there was no similar rise in the morning (5 to 10 AM) which is another busy time. Explanation could not be given for this. There is probability that persons are more push and attentive in the morning hours with better reflexes, while they may be somewhat tired in the evening period after day's work with slow perception and longer reaction time.

Haddon et al (1961), Mac Carrol et al (1962) and Barmack and Payne (1962) also observed similar rise of motor vehicle accidents in the evening and night (early and late) and low incidence in morning. It can be explained, the evening and night rise by social practice of drinking more alcohol in the evening. Though much smaller extent, but
few persons who drink alcohol one more likely to few of these accidents.

In the night, when traffic is thinner and thinner continued occurrence of motor vehicle accident while other accidents tapered off or even disappeared.

During other hours of day time automobile accidents occurred to lower extent and minimum in morning hours.

In all other transport accidents, there was less traffic by non motor vehicles at night. Largest number of other transport accidents were 27.81 percent in evening time (2 to 7 PM) and second highest of 24.60 percent during early night (7 PM to 12 night).

Accidents caused by falls, largest falls occurred during early night, i.e. 28.43 percent. Second maximum falls occurred 27.48 percent during evening hours (2 to 7 PM) It is so in Bundelkhand region most of persons used to go on their farm and used to come back in evening and at times in early night. In evening time older children are more active, playing or climbing on the trees. Some adults also used to pluck the dry branches of tree for cooking food.

Next highest number of falls, (15.00%) during morning hours (5 to 10 AM). This is due to occupational falls from various height s, wood cutters, plucking of fruits from trees.

Least number of falls (13.74%) during noon period (10 AM to 2 PM) were occurred.
Accidents caused by machinery: highest accidents (29.82%) were occurred during late night (12 night to 5 AM), second highest accidents caused by machinery were 28.07 percent in early night (7 PM to 12 night).

In morning time accidents were less and gradually increased as day passed and continued increased during night. In Calcutta factories, it has been observed that accidents were minimum at the beginning of the day and maximum towards the end. There is attributed to fatigue (Sabnis and Rao, 1961). This is true in our findings.

Accidents caused by explosion, highest (41.38%) during early night hours (7 PM to 12 night). Second highest accidents (34.48%) during evening hours (2 to 7 PM). Near contention area in Jhansi there were some unblast Hathgola in Farms. Persons of low socio-economic status used to walk in farms to pickup the fragments of copper and other metals for livelihood. At times the pick up the Hathgola unknowingly some time due to sudden blast, they get explosion injury and developed various types of disabilities. Persons when passed through contention area, in early night, their feet sudden stroke to Gola and explosion occurred. On festivals and marriage ceremony etc. most of the people used to cracker during early night.

Accidents caused by gun shot, highest number of accidents (33.33%) in late night (12 night to 5 AM). Most of the robbery occurred during late night and homicidal incidences also common in late night.
In all other causes, maximum accidents (28%) during early night (7 PM to 12 night). Minimum accidents (12.00%) during noon time (10 AM to 2 PM).

PLACE OF ACCIDENT IN RELATION TO ACCIDENT

The places where the accidents occurred have been shown in table 9. Road side accounted for 50.60 percent accidents while home contributed 24.90 percent accidents. Farm accounted for 19.10 percent while factory and railway were responsible for 3.0 and 2.4 percent respectively.

In motor vehicle accidents, 96.33 percent occurred on road. Second maximum accident on Farm (3.06%). Motor vehicle accidents accounted for 62.20 percent of all road accidents.

In other transport accidents, 83.42 percent accidents occurred on road, second maximum accident (12.33%) occurred in railway accidents. Minimum accidents (1.60%) occurred in home.

According to traffic police sources Bhopal city registered 1200 road accidents in 1979. According to hospital sources, road accidents accounted for 48.40 percent of all accidents, Agriculture accounted for 14.90 percent while industrial accidents accounted for 4.70 percent of all injuries. Similar trends found in table 9.

Accidental falls, majority of them 61.66 percent occurred in home. Gill et al (1977) observed that leading cause of accidents was fall accounting for 32.50 percent.
Between 50 to 80 percent of total falls were domestic and in all report of deaths, except from Japan, Ceylon and Nagpur, falls were the chief cause of these accidents.

Second maximum falls 25.88 percent on farm. While third maximum falls were 8.95 percent on road side. Minimum falls (3.51%) were in factory.

Accidents caused by machinery: maximum accidents 59.65 percent occurred in farms which was highest in all machinery accidents. While in factory and home accounted for 29.82 and 10.53 percent respectively.

Common machinery used in agricultural threshers chief cutting machine, Kolhu, conveyer belt, rice halling machines, i.e., in 1976, as many as 294 cases of thresher injuries reported from Punjab and in 1980, 301 cases were reported from Punjab due to thresher injuries (Agarwal, ND, 1985).

Accidents caused by gun shot: maximum (66.67%) and minimum (8.33%) accidents were occurred in farms and home respectively.

Accidents caused by explosion: maximum and minimum accidents were 86.21 and 3.45 percent in farm and road side respectively.

Accidents caused by other causes, maximum accidents accounted for 57.33 percent rural persons having animals in their house and farm, sharp instrument which are mostly used in agricultural work. Second minimum accidents by other
causes accounted for 38.67 percent and minimum (4.0\%) accidents were occurred in road side.

**CONTRIBUTORY FACTORS IN RELATION TO ACCIDENTS**

Accidents are multifactorial in causation. It is impossible to pick up one as the cause of an accident.

Motor vehicle accidents: Excessive speed was the commonest appearing in 25.99 percent cases. Next in order of frequency defective vehicle accounted for 19.57 percent, alcohol 13.76 percent, poor physical health 9.17 percent and slippery floor 7.65 percent. Difficult routes (narrow uneven and winding roads are very common in Bundelkhand region) which reduce the range of vision, so accidents are more common. Minimum accidents (0.3\%) were occurred due to unguarded machine.

In other transport accidents, slippery floor was the commonest contributory factors in 21.93 percent cases. Excessive speed was second common contributory factors in 19.25 percent cases. Unguarded machine was only in 1 percent cases, poor physical health contributed 11.7\% cases.

In accidental falls: most important contributory factor was 29.7 percent of falls due to slippery floor and second common contributory factor was defective vision in 17.89 percent falls. Third commonest contributory factor was poor physical health (17.57\%). Minimum contributory factors physical disability accounted for only 1.60 percent of all falls. Loose stones of kutcha walls or kutcha
steps, wet floor (cemented) or broken steps of ladder are important factors in causation of falls.

In accidents caused by machinery, most important factor was unguarded machine or absence of safety device contributing 21.05 percent.

In farm machinery i.e. threshers sometime persons separated the safety guard from thresher to earn the extra money. Persons loose their limb in absence of safety guard in machinery. Man used an eight horse power (8 H.P.) belt on 10 hourse power engine (10 H.P.) and worked it fast (1,500 revolutions per minutes). The result was that instead doing the work faster, belt broke under the strain. In fraction of second one of it ends tied round his forearm and pulled it towards engine where they had got multiple injuries even crushed.

Sabnis and Gupta (1961) mentioned inattention, carelessness, fool hardiness due to over confidence, ignorance, inexpensive and slow cerebration as cause of factory (machinery) accidents.

Accidents caused by explosion, most important contributory factor was inadequate light in 58.62% cases.

In all other causes of accidents, most common contributory factor was inadequate light in 30.67 percent cases. In rural area most of animals are kept in a separated room having no light facilities. Bull horn injury more common in a room of inadequate light, where animals used to live. Minimum accidents due to fatigue and sleepi-
ness hearing defect, physical disability, alcohol having only 1.33 percent each of them.

Other intoxicant (Bhang, Ganja, Tobacco) having second most common contributory factor 29.34 percent.

Gupta (1961) stated that carelessness, poor maintenance and faulty design are responsible for about 60, 20 and 8 percent home accidents respectively.

ACCIDENTAL FALLS

Falls from stairs, steps or ladder were the commonest variety accounting to 30.35 percent. Second common falls on ground contributing 14.70 percent. Third common cause of fall was due to stones accounting to 14.38 percent. Fourth common cause of fall was fall from tree contributing 12.46 percent because of occupational causes.

Duraiswami (1961) stated that in the country side falls from trees were common.

Most common cause of falls in Bundelkhand region from stairs, steps or ladder. Most of the persons make stairs of clay without side support (Table 11).

Accidents by class of motor vehicle: highest number of accident 26.30 percent in all motor vehicle by tractor. Second highest number of accidents 22.32 percent contributed by motor cycles. Tractors are used very commonly in agriculture as well as in city for farming and transportation probably operated by untrained persons without following traffic rules.
Third highest accidents due to jeep and motor truck having 11.62 percent each of them. Scooter, motor car, and moped having 4th, 5th and 6th place respectively (Table 12). Minimum caused by autorikshaw accounting for 0.30 percent.

Motor cyclist and Pedal cyclist have much the worst casualty rate per kilometer, peak age from 10-19 years (Roads to safety, London, 1978).

Combining vulnerability with speed, motor cyclist (including scooter, and moped riders) are stimulated to have more than twice the deaths rate of cyclist, according to 1977 figures (B.M.J., 1977). Bundelkhand region mostly roads are full of ups and downs and curves and narrowing of roads causes more collision between four wheelers.

According to police sources, buses, specially private ones are often in worst state of repair than others. Breaks failure is more common.

ACCIDENTS BY CLASS OF NON MOTOR VEHICLE EXCEPT TRAIN

In non motor vehicles, bullockcart accounted for maximum 47.06 percent and second maximum accidents because of pedal cycles contributed 40.64 percent and train contributed 12.30 percent.

It is common practice of bullock cart drivers to sleep during long journey when oxen proceed slowly but steadily along familiar automatically observing traffic rules learned experience when oxen were new and
inexperienced lead accidents. Cycles are larger proportion among non motor vehicles (Table 13).

**DISTRIBUTION OF ACCIDENTS CAUSED BY EXPLOSION**

Gun powder contributed 68.96 percent and crackers accounted for 31.03 percent. Largest single variety was gun powder in festivals and marriage ceremony. Fire works in connection with festivals has been mentioned by Lal and Gupta (1961) as case of accidental blindness. Gun powder also cause lacerated injuries (Table 14).

**DISTRIBUTION OF FARM MACHINERY**

Higher number of farm machinery accidents accounted for 75.44 percent by tractors which very commonly used in agricultural works. Second highest farm accidents contributed 29.93 percent by thresher. Agarwal et al (1976) reported that increasing loss of limbs as result of thresher accidents accounted for 294 cases and in 1980, 301 cases were reported from Punjab.

Threshers are also very commonly used as farm machinery. Minimum accidents 2.63 percent occurred due to pumping set belt (Table 15).

**DISTRIBUTION OF ALL OTHER CAUSES OF ACCIDENTS**

Highest number of all other accidents(53.33%) accounted by stick and iron rods. Second highest number of accidents accounted due to animals having 28.00 percent. In rural areas persons are more prone to hit by animals like buffalo and oxen (domestic animals). Minimum accidents
2.67 percent occurred due to electric current.

59.60 percent of total accidents were found in lower limbs while 37.80 percent in upper limbs in present study. Seal et al (1964) reported that 49.00 percent and 24.00 percent of accidents were in lower and upper limbs respectively.

DISTRIBUTION OF CASES OF ACCIDENTS BY RESULT

The number of persons killed or temporary disabled or permanent disabled as a result of accidents. There were 75.00 percent temporary disability, 21.90 percent permanent disability and 3.10 percent of deaths as result of accidents.

Gordon et al (1962) conducted a survey of traumatic accident in four villages of Ludhiayana district, Punjab, India. They considered only those injuries which produced a disability for at least one day. The incidence was 115.6 per thousand persons were having 4.3 percent of permanent crippling. In different types of accidents, machinery accounted for maximum 80.70 percent permanent disability. The causes of steady increasing of disability because of mechanization, every grain harvesting, cane crushing season leaves hundred of farm workers without finger, hand and forearm, their limbs chopped off in thresher or mutilated in crushers. For optimum production farm owners encourage the labour to work overtime, even supplying them with drugs and drinks to keep them going.
In other transport accidents, accounted for maximum 83.42 percent temporary disability followed by 11.76 percent permanent disability. Bullock cart, cycles are less dangerous than machinery probably so that temporary disability is more as compared to permanent disability as a result of machinery accidents.

In accidental falls, maximum occurrence of temporary disability 82.75 percent followed by 15.57 percent permanent disability.

WHO (1965a) stated that 50 to 80 percent fatal falls are domestic and elderly females are more vulnerable except Japan, Ceylon and Nagpur. In Bundelkhand region, falls were on second place in causing temporary disability Males were more prone to fall.

Explosion accounted for maximum 75.86 percent permanent disability followed by 17.24 percent temporary disability. Explosives cause more destructive of affected part so permanent disability occurred more.

Gun shot accidents, 33.33 percent permanent disability occurred followed by 58.33 percent temporary disability.

In motor vehicle accidents accounted for 18.96 percent permanent disability followed by 77.60 percent temporary disability.

Other accident accounted for 17.33 permanent disability while 80.00 percent temporary disability(Table 17).
EVALUATION OF PERCENTAGE OF PERMANENT DISABILITY

The evaluation of percentage of permanent disability based on expert group meeting on disability evaluation and national seminar on disability evaluation and dissemination, DGHS - WHO, AIIMS and courtesy of American Academy of Orthopaedics Surgeons, Chicago, USA (Appendix II).

As shown in table 18, 37 patients had maximum range of disability from 91-100 percent and 29 patients accounted for minimum range of disability less than 10 percent of total patients. According to different places of occurrence of accidents.

Road side

Eight patients had maximum permanent disability ranging from 91-100 percent followed by 1 patient developed permanent disability ranging from 81-90 percent, 10 patients had 1-10 percent permanent disability.

FARM

Fourteen patients developed permanent disability ranging from 91-100 percent followed by 13 patients had disability ranging from 71-80 percent, 8 patients had disability ranging from 1-10 percent.

Factory

Two patients developed permanent disability ranging from 91-100 percent followed by 3 patients had disability range from 51-60 percent, 5 patients accounted for minimum range of disability from 1-10 percent.
Twelve patients had disability range from 91-100 percent followed by 1 patient was found to have disability range 81-90 percent, four patients had minimum disability ranging from 1-10 percent.

One patient developed maximum disability ranging from 91-100 percent followed by 4 patients accounted for disability range 81-90 percent. Two patients had disability ranging from 1-10 percent.

Farms were the first commonest place of accidents where maximum ranges of permanent disability (91-100%) in 14 patients followed by 12 patients in second commonest place. Home which had same range of maximum permanent disability. In our study, farm accidents accounted for maximum range of disability probably due to result of rapid large scale mechanisation of agriculture and inadequate safety precautions. There is no surveillance system for agricultural accidents.

Common machinery used threshers, Chaff cutting, machines, Kolhu, Rice hulling machine, conveyer belts and Bakhar (instrument for ploughing). Second commonest place of accident for maximum range of disability (91-100%) was home in present study.

Majority of home accidents, 60 percent are due to negligence of parents and 20 percent are ascribed to poor maintenance of houses (Park JE, 1981).
Ghosh, BN et al (1971) reported that highest number of accidents (34.97%) at home probably that is why it is second commonest place of accident for maximum disability (91-100%).

Third commonest place was road side where 9 patients were found to have maximum range of permanent disability (91-100%). Road side accidents patients had more permanent disability as compared to home except disability range (91-100%) in 12 patients at home.

India has one of the highest road accidents rate in the world. One out of every 42 vehicles in the country met with an accident in 1986 (Park JE, 1989).

Illiteracy is more in Bundelkhand region for surviving pedestrians both serious head and lower limb injuries are typical, for surviving motor cycles riders injuries to the extremities occur with great frequency. For bicycles riders, lower limb injuries fairly common, foot injury in children from spokes. In car occupant among survivors, lower limb injuries are frequent cause of disability. Defective roads, unusual behaviour of men and animal, disregard of road sign, fatigue and alcoholism of drivers, cause more accidents and resulting significant disabilities.

In factory accidents, maximum range of permanent disability (91-100%) and minimum range of disability (1-10%) were more as compared to railway accidents. But disability range from 61-70 percent in railway accidents was found
more than 2 times as compared to factory accidents (Table 18).
Because of amputation of extremities more common in railways
accident so probably this range of permanent disability
was found in railway accidents. In factory and railway
accident, number of patients having permanent disability
were less as compared to farm, home, and roadside accident.
Patients of railway accidents, majority of them went to
railway hospital for further treatment. There are less
number of factories in Bundelkhand region, majority of them
treated in E.S.I. dispensaries and hospital, only few cases
of major injuries were treated in this institution.

India is a vast country with variable social,
cultural, geographical and economical background. Rapid
industrialisation, mechanisation of farming and increase in
vehicular traffic have increased accidents. The changing
demographic picture with increase life expectancy, labour
force and active working population in industries, urban
or rural has brought in its wake a number of disability
problems in all age groups and more so in productive which
require measures for disability evaluation and rehabilitation.