

Accident Analysis and Suggesting Improvements for the road link joining to Lalpur kampa to Rajendranagar chokdi (SH 59) in Modasa Taluka.

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Abstract:

An accident black spot is a term used in road safety management to denote a place where road traffic accidents have historically been concentrated. It may have occurred for a variety of reasons, such as a sharp drop or corner in a straight road, so oncoming traffic is concealed, a hidden junction on a fast road, poor or concealed warning signs at cross-roads. Transportation contributes to the economic, industrial, social and cultural development of any country. Transportation by road is the only mode which could give maximum service to one and all. Due to the increase in population, number of vehicles is increasing day by day which leads to the increase in road network. It has been estimated that over 30,000 persons die and over 10 to 15 million persons are injured every single year in road accidents throughout the world. The present work intended to analyze a black spot (accident prone location) Rajendra-nagar chokdi in Modasa Town. The causes of accidents are studied and suggested different remedial measures to reduce number of accidents.

Keywords:

Traffic counts, Black spot, Traffic safety.

Introduction:

1. General

Accidents, tragically, are not often due to ignorance, but are due to carelessness, thoughtlessness and over confidence.

Accidents were associated with numerous problems each of which needed to be addressed separately. Human, vehicle and environmental factors play roles before, during and after a trauma event. Accidents, therefore, can be studied in terms of agent, host and environmental factors and epidemiologically classified into time, place and person distribution. This paper lays emphasis on accident studies on Rajendra nagar chokdi in Modasa Town. It is a major urban arterial junction with shoulder and side drains. The open side drains exist for some part of the study stretch. For the purpose of the study, took place on the road between two or more objects, one of which must be any kind of a moving vehicle.

2. Literature Review:

Modasa is a city and a municipality in Aravalli district in the Indian state of Gujarat. Modasa became headquarters of new Aravalli district, carved out from tribal-dominated areas of Sabarkantha. The new district was declared on January 26, 2013 and formed on August 15;

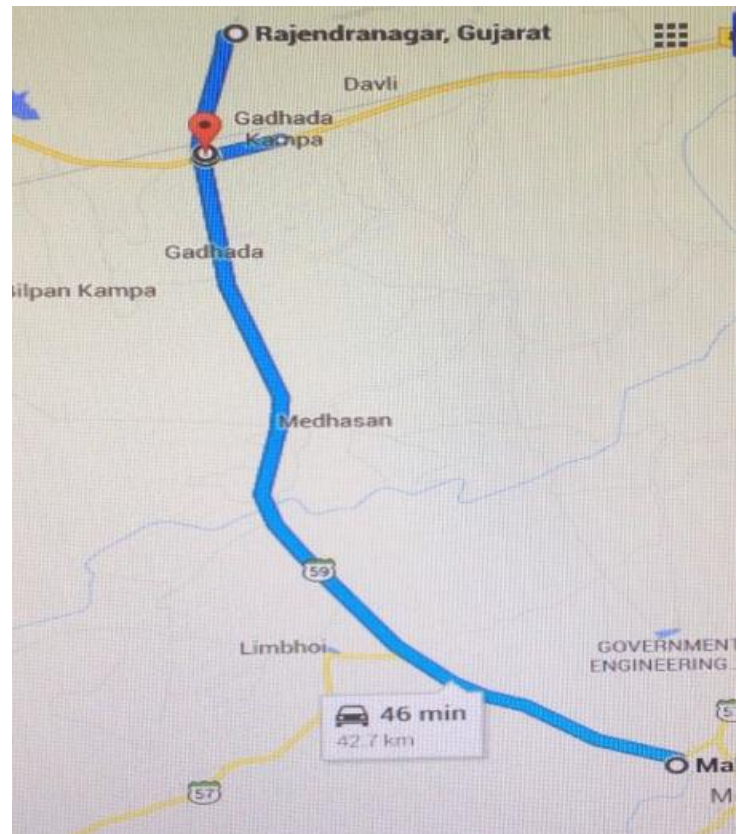
2013. It is an economic centre for agricultural exports, at both the provincial and national levels. As a centre for the surrounding villages, Modasa acts as a transportation hub for both residents and tourists, and has two large hospitals. The city also provides a nucleus of doctors for the people of northern Gujarat and some migrants of southern Rajasthan.

As of 2001 India census, Modasa had a population of 90,000. Males constitute 51% of the male population and females 49%. Modasa has an average literacy rate of 74%, higher than the national average of 59.5%: male literacy is 81%, with female literacy at 67%. In Modasa, 13% of the population is under 6 years of age.

As per Modasa police headquarters the crime rate of Modasa is more due to accidents in Aravalli district so it required focus and preventive measures to.

3. Study Area:

Mahadevpura-kampa, Bhavanpura-kampa, Limbhoi, Medhasan and rajendranagar chokdi.



4. Data Collection:

The data in accident survey is collected Photos of Mahadevpura-kampa, Bhavanpura-kampa, Limbhoi, Medhasan and rajendranagar chokdi.



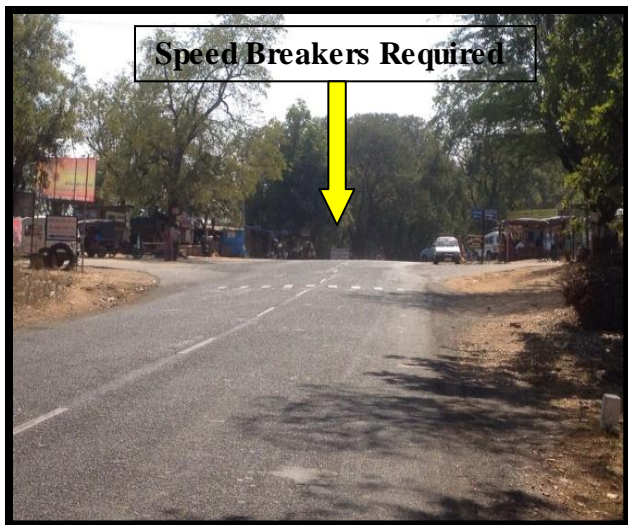


Table No: 01 Modasa town to Rajendra nagar chokdi Accident Data

Year	Dead	Injured	Fatal	Total
2009	2	1	7	10
2010	4	2	13	19
2011	5	8	7	20
2012	9	11	26	46
2013	1	1	25	27
2014	10	2	16	28

Where,
 Dead-No longer alive.(On the spot)
 Injured-To wound or cause physical harm.
 Fatal-Causing death.(After some time)

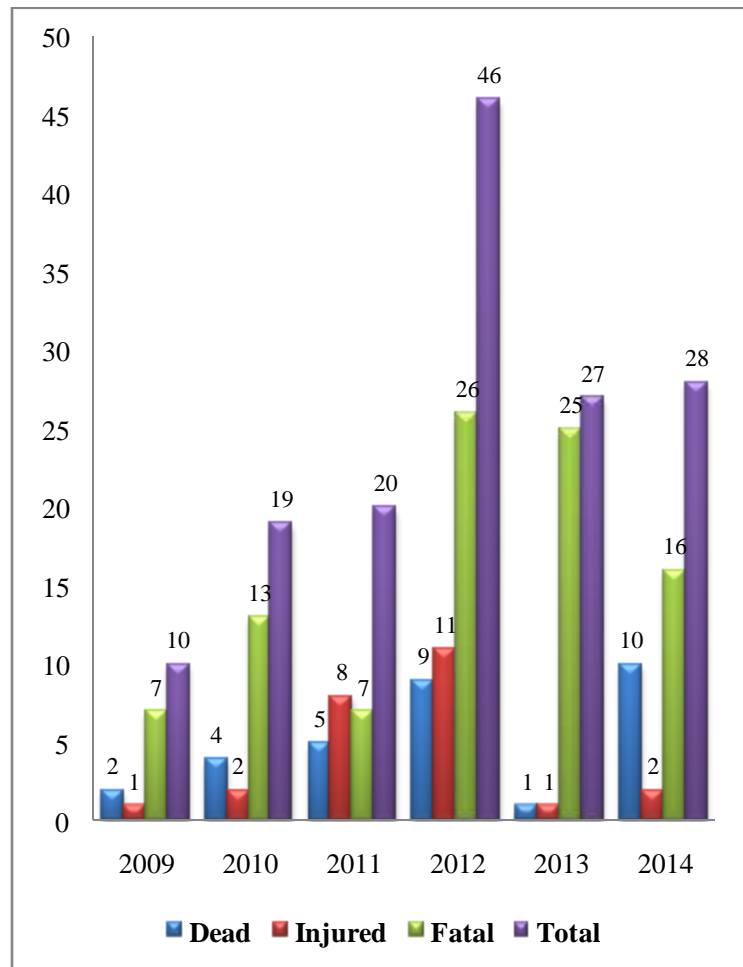
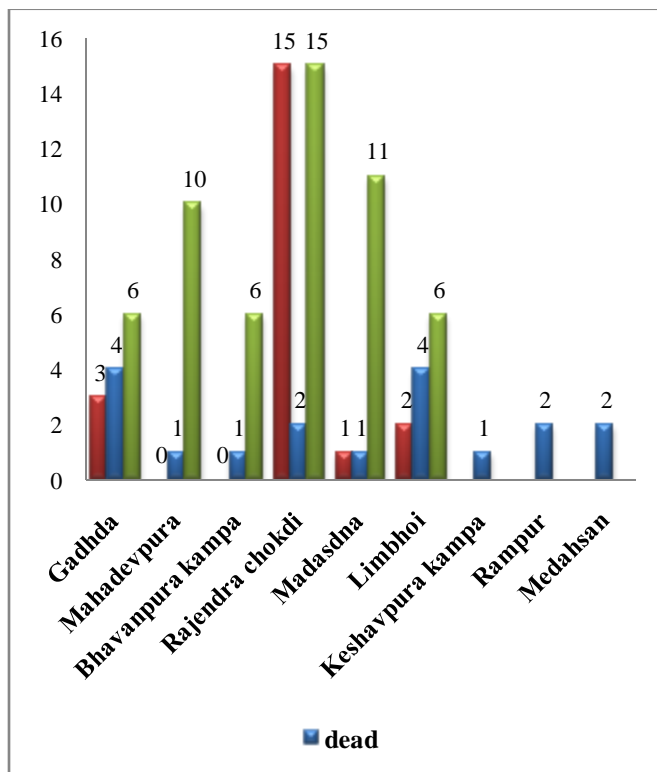


Table No: 02 all black spot belong to Modasa town to Rajendra-nagar

5. Analysis:

Chokdi Accident Data

Lalpur kampa to Rajendranagar chokdi			
	Dead	Injured	Fatal
Gadhda	4	3	6
Mahadevpura	1	0	10
Bhavanpura kampa	1	0	6
Rajendra chokdi	2	15	15
Madasdna	1	1	11
Limbhoi	4	2	6
Keshavpura kampa	1	0	0
Rampur	2	0	0
Medahsana	2	0	0



6. Preventive measures:

- Change in geometric design of road is required as the required super elevation is not there.

- Provide divider on specific location for reducing Accidents.
- To provide proper surface of road for safe and smooth riding.
- Provide proper informatory sign such that all kind of people can understand it easily.
- Provide Road widening from single lane to double lane.
- Required Speed breakers.
- Repairs of cracked surface and filling up of pot holes to reduce the accidents.
- Installation of cat eyes and road reflectors in the junctions and also near the road humps.

7. Conclusion:

- Accident Analysis & Prevention provides wide coverage of the general areas relating to **accidental injury** and damage, including the pre-injury and immediate post-injury phases.
- As per data collected the accident rate at Rajendranagar chokdi is more as compare to other spots.

8. References:

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Sources of Data:

Modasa Rural Police Station No.1372/14.

