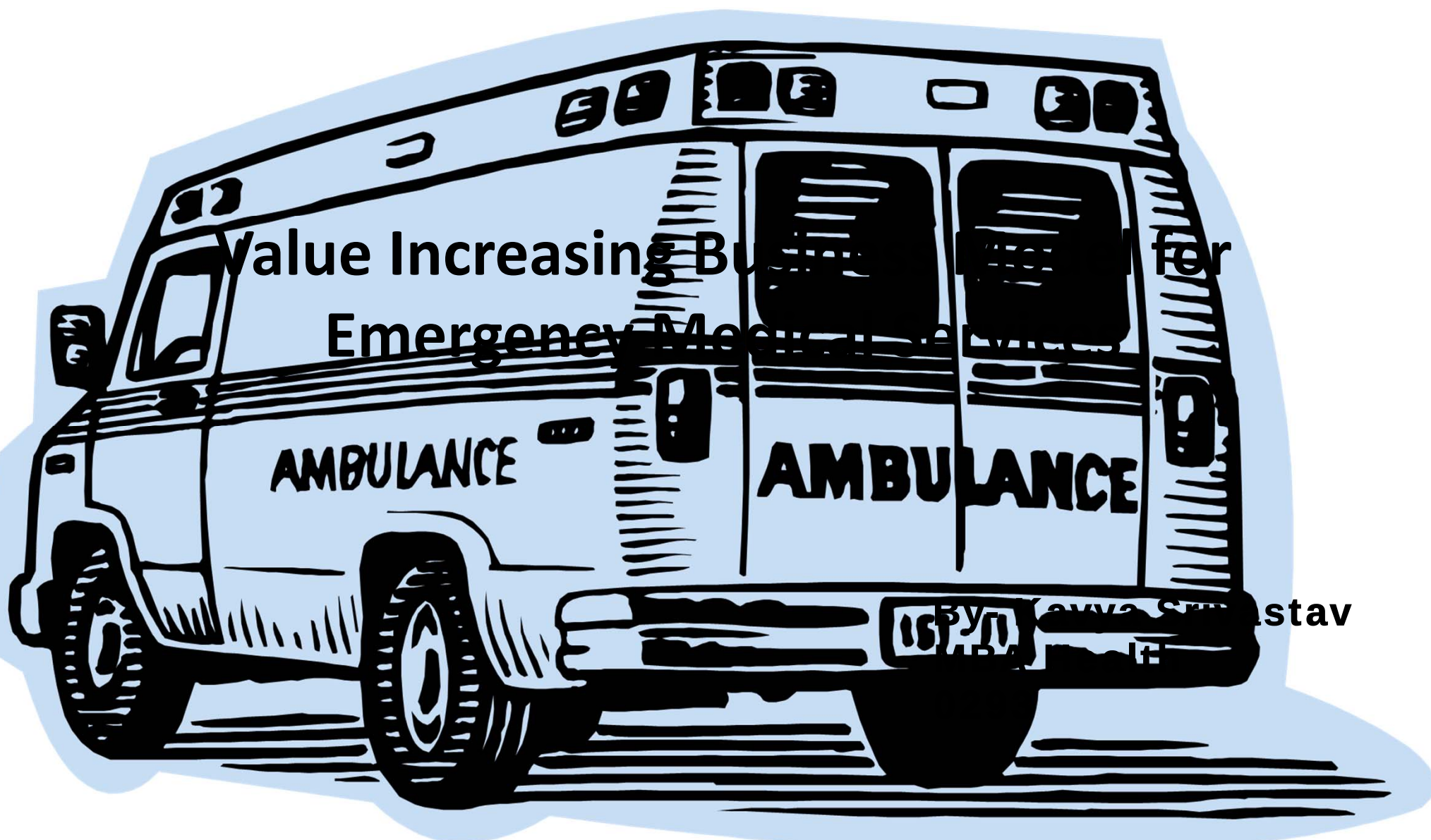




Value Increasing Business Model for
Emergency Medical Services

By Anna S. Stav
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Introduction

- The ratio of road traffic accidents in the world is 0.8 accidents for 1000 vehicles, while in India it stands at a staggering 16 accidents per 1000 vehicles.
- By 2020, it is estimated that India will have maximum number of people suffering from cardiovascular diseases.

By 2025, India will be Diabetes Capital of the world.

India is one of the world's most disaster prone areas. Almost 57% of the land is vulnerable to earthquakes, 68% to draught, 8% cyclones and 12% to floods.

Unfortunately, man-made disasters are also a reality in India.

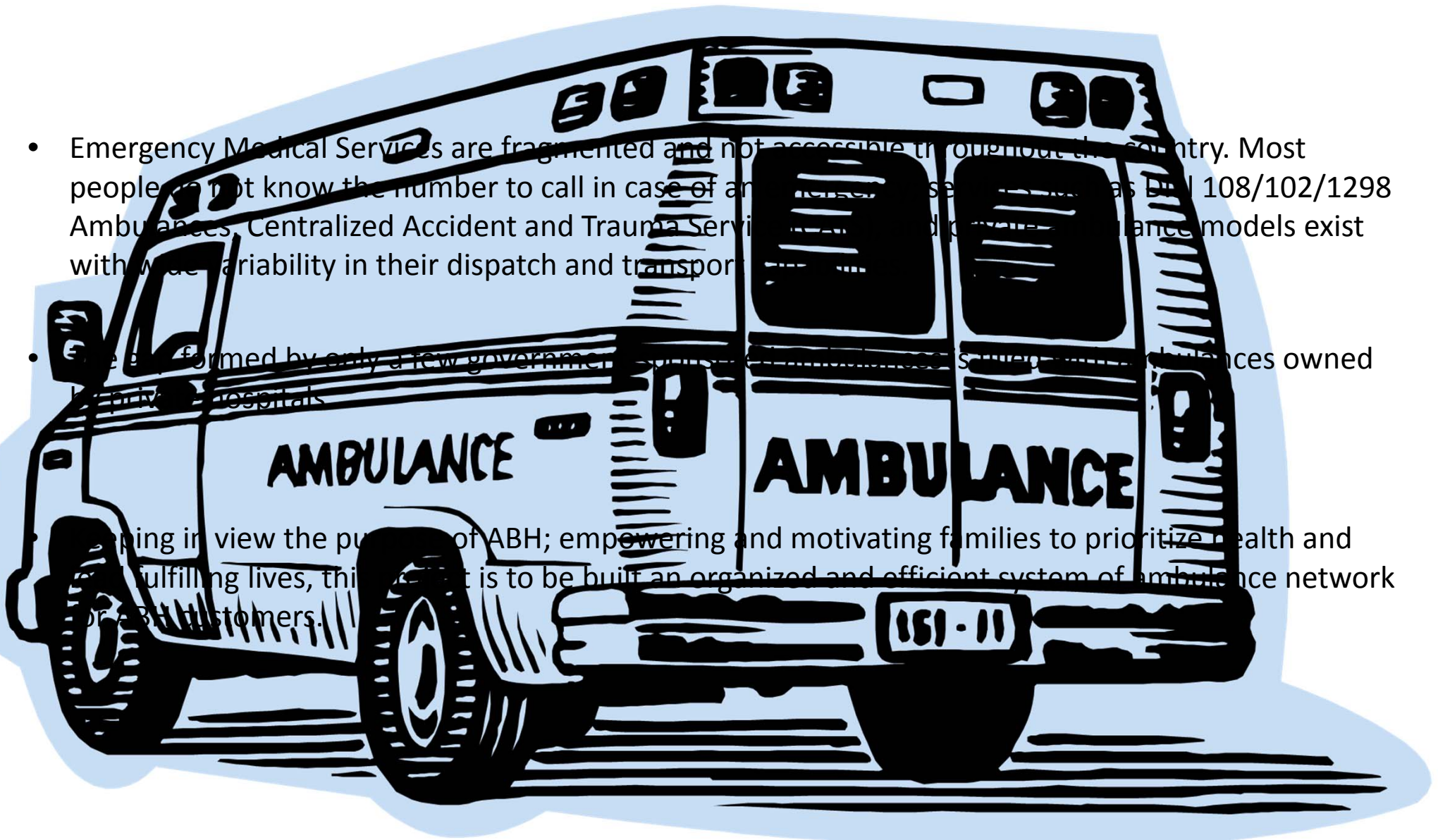
30% of victims die due to delay of transportation during transportation, which is very primitive.

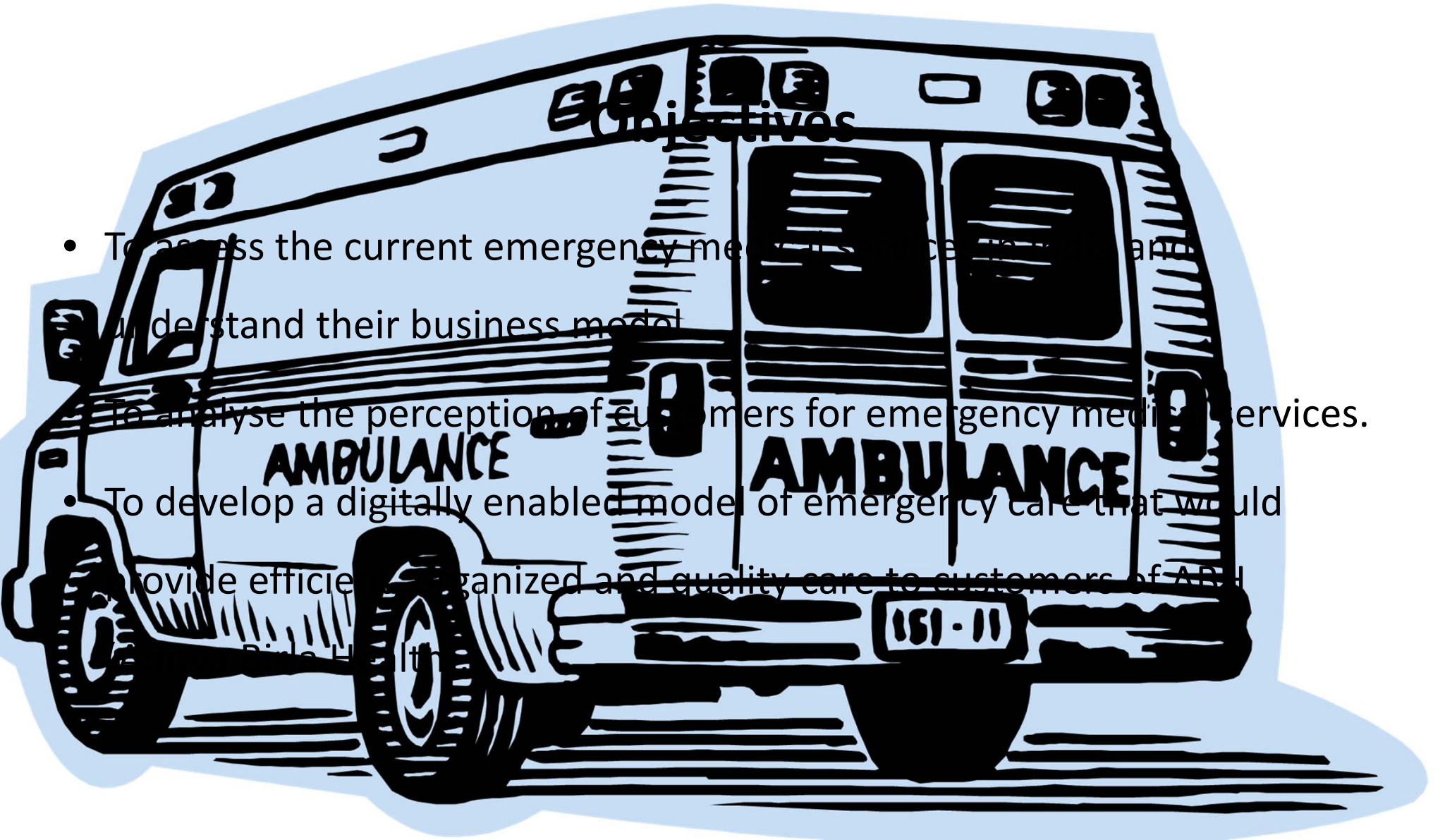
Road traffic injuries are currently estimated to be the third leading cause of death for all age groups globally, and are projected to become the seventh leading cause of death by 2030.

- Emergency Medical Services are fragmented and not accessible throughout the country. Most people do not know the number to call in case of an emergency, such as 108/102/1298 Ambulances. Centralized Accident and Trauma Services and private ambulance models exist with wide variability in their dispatch and transport.

- The service is performed by only a few government hospitals and ambulances owned by private hospitals.

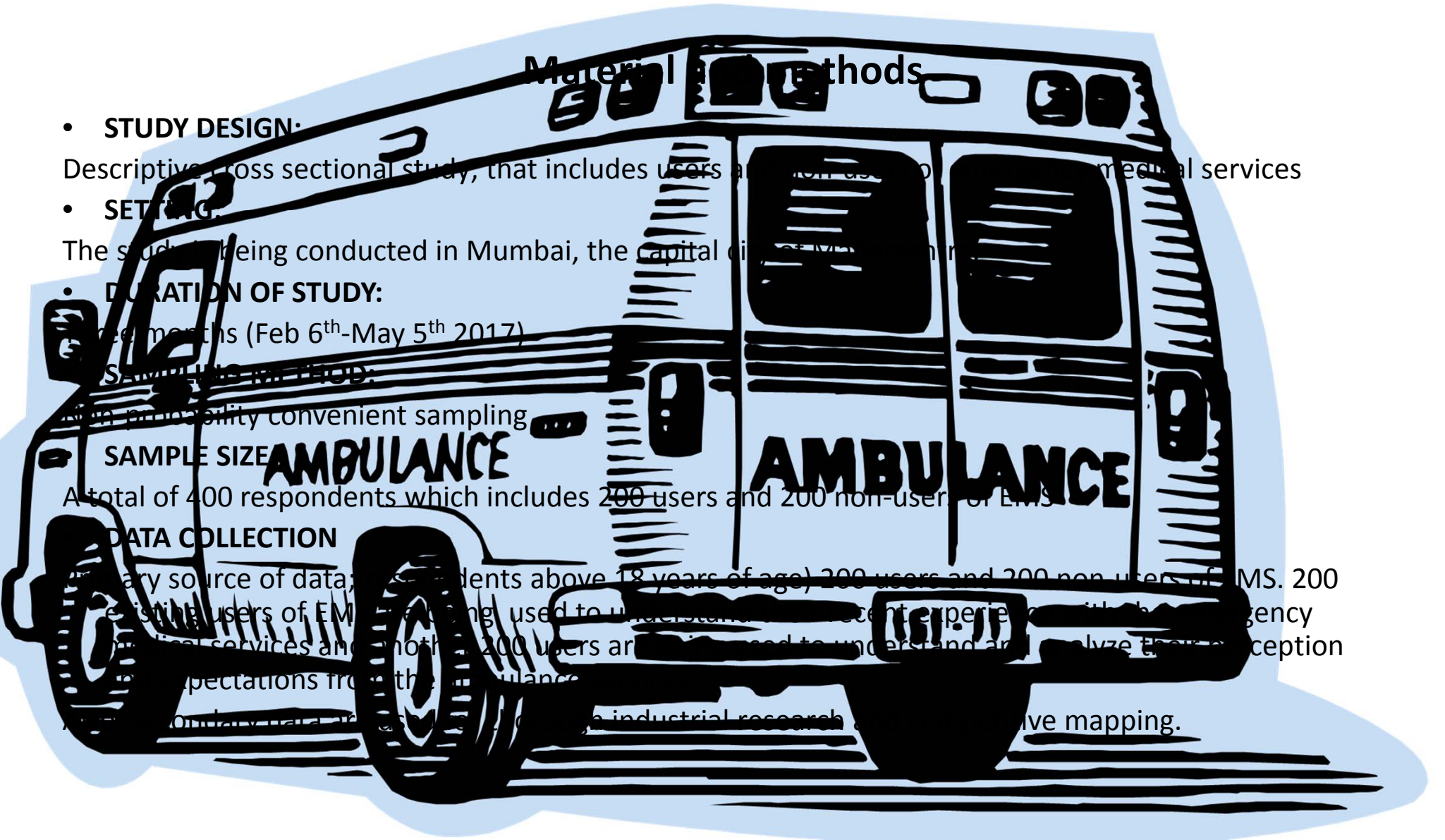
- Keeping in view the purpose of ABH; empowering and motivating families to prioritize health and fulfilling lives, this project is to be built an organized and efficient system of ambulance network for ABH customers.





Objectives

- To assess the current emergency medical services in the area and understand their business model.
- To analyse the perception of customers for emergency medical services.
- To develop a digitally enabled model of emergency care that would provide efficient, organized and quality care to customers of ABH.



Material and methods

- **STUDY DESIGN:**

Descriptive, cross sectional study, that includes users and non-users of emergency medical services

- **SETTING:**

The study is being conducted in Mumbai, the capital city of Maharashtra.

- **DURATION OF STUDY:**

Three months (Feb 6th-May 5th 2017)

- **SAMPLING METHOD:**

Non-probability convenient sampling

- **SAMPLE SIZE:**

A total of 400 respondents which includes 200 users and 200 non-users of EMS.

- **DATA COLLECTION**

Primary source of data: (residents above 18 years of age) 200 users and 200 non-users of EMS. 200 existing users of EMS are being used to understand their recent experience with the emergency medical services and another 200 users are being used to understand and analyze their perception and expectations from the ambulance.

Secondary data: research used in industrial research and in the field of cartography and mapping.

- Tools used for understanding the expectations of the prospective users of EMS and the experience of customers who have ever been a user of EMS
- Questionnaire for measuring the public's perception and expectations of emergency services in India. Six components of customer's perception was identified and included to gather the data;

- Vehicle

- Staff Attitude

- Staff Performance

- Professionalism

- Efficiency of service and

- Satisfaction for understanding the recent experience of the emergency service from user.

AMBULANCE

AMBULANCE

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Microsoft Office
Word Document



Microsoft Office
Word Document

Industry Scenario-EMIS

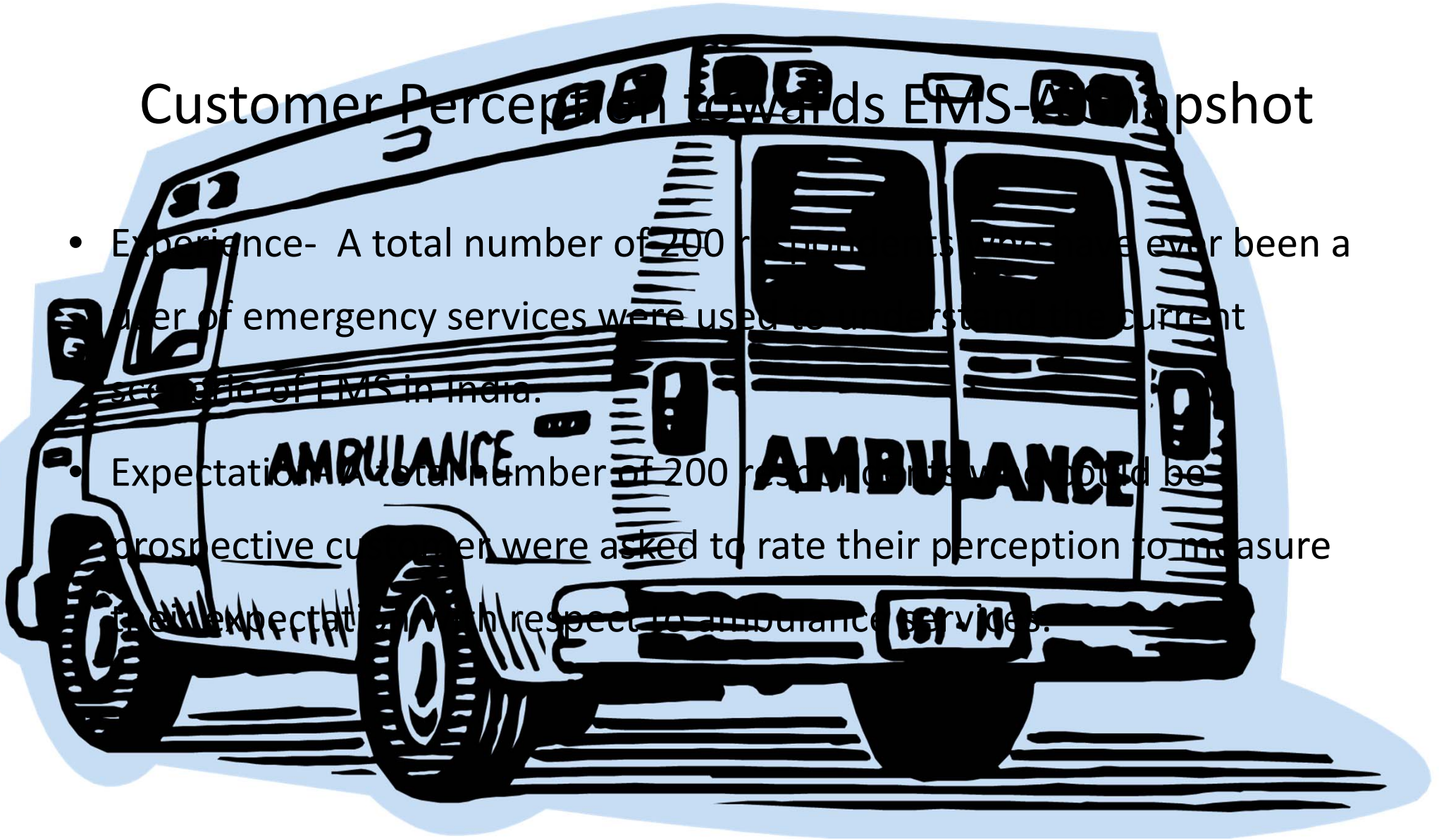
S.NO.	SERVICE PROVIDER	LOCATION	CONTACT NO. FOR EMERGENCY	Total number of ambulances	Business model	Digital platform
1	GVK EMRI's	15 states and 2 UT I.e.Andhra Pradesh, Telangana, Gujarat, Uttarakhand, Goa, Tamil Nadu, Karnataka, Assam, Meghalaya, West Bengal, Himachal Pradesh, Chhattisgarh, Uttar Pradesh, Rajasthan and 2 Union Territories, Dadra & Nagar Haveli and Daman & Diu.	108	108 ambulances-6570 and JSSK-4257	PPP	No
2	Maharashtra Emergency Medical Services (MEMS) with BVG	Aundh Chest Hospital Pune; all over Maharashtra	108	1000	PPP	WIP
3	Ziqitza Health Care Limited (ZHL)	980 Ambulances across five states; Basically South Mumbai and Kerala	1298	3000...150 for private	Outsourcing and PPP (Cross-subsidy and fixed contract)	App WIP
4	LIFEJET AMBULANCE	Mumbai, Nashik, Pune, Goa; Air service throughout India; Patna, Allahabad	+91 9322270516	7 Cardiac Ambulance and 4 Basic Ambulances	Private	No
5	AMBER	launched in Delhi-NCR and would soon be expanded to Bengaluru, Mumbai and Hyderabad	MOBILE APP	-	App based- Private	Yes

Competition Mapping

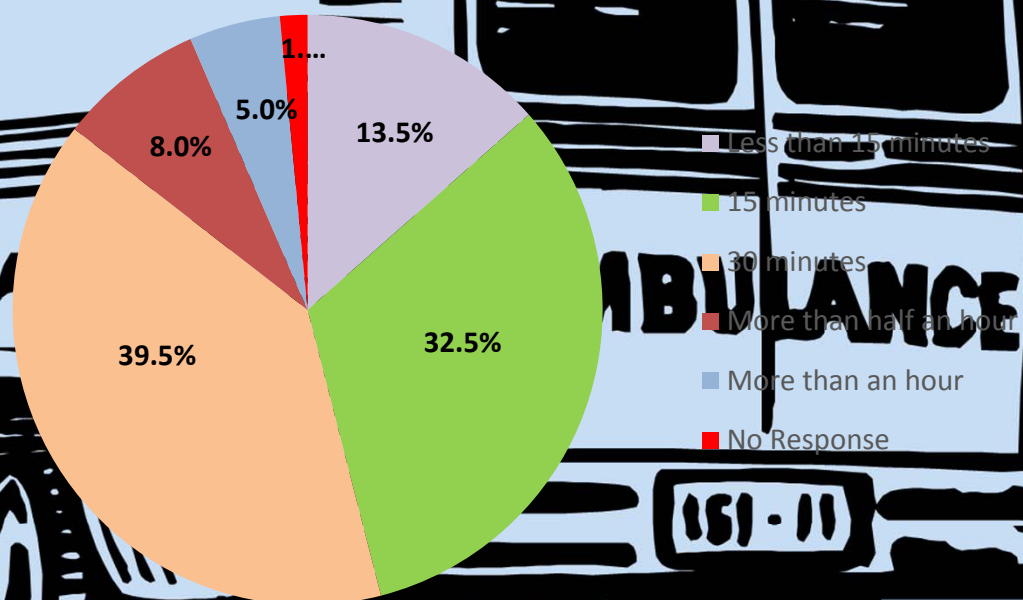
S.No	Service Provider	Cashless/RM	Plan Name	Limit	Road Ambulance	Air Ambulance
1	ICICI LOMBARD	RM	Complete Health Insurance Extension HC 5	1500 per event	YES	NO
			Health Booster	1500 per event	YES	NO
2	Apollo Munich	RM	Optima Senior	2000	YES	NO
			Optima Super	2000	YES	NO
			Optima Restore Family	-	YES	YES
3	Bajaj Health Insurance	RM	Silver Health	1000	YES	NO
			Extra Care	3000	YES	NO
4	Religare Health	RM	Care Comprehensive	3000	YES	NO
			Care Freedom	1000	YES	NO
5	Star Health	RM	Star Comprehensive Insurance Policy	10% of Sum Insured	YES	YES

Customer Perception towards EMS-A Snapshot

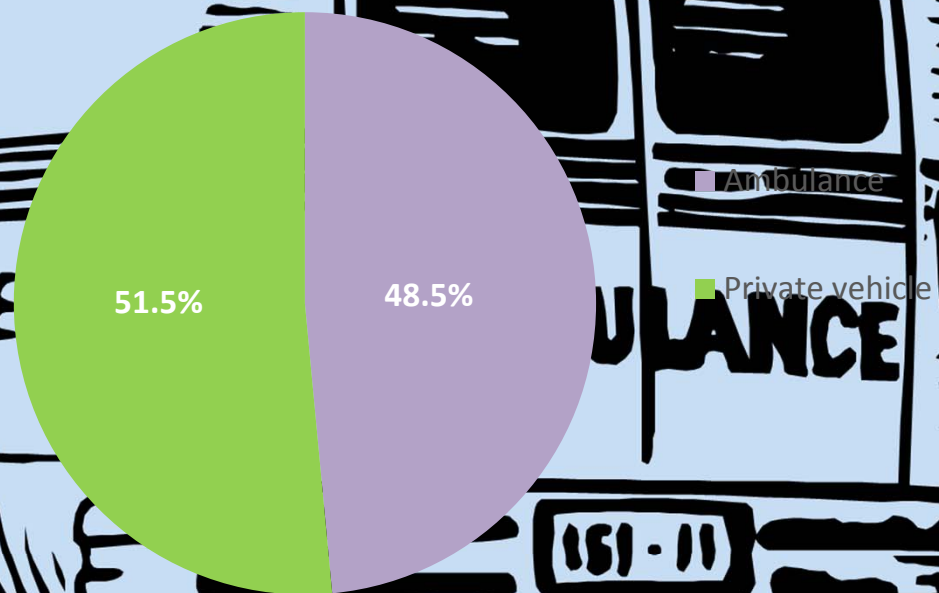
- Experience- A total number of 200 respondents have ever been a user of emergency services were used to understand the current scenario of EMS in India.
- Expectation- A total number of 200 respondents could be prospective customers were asked to rate their perception to measure their expectation with respect to ambulance services.



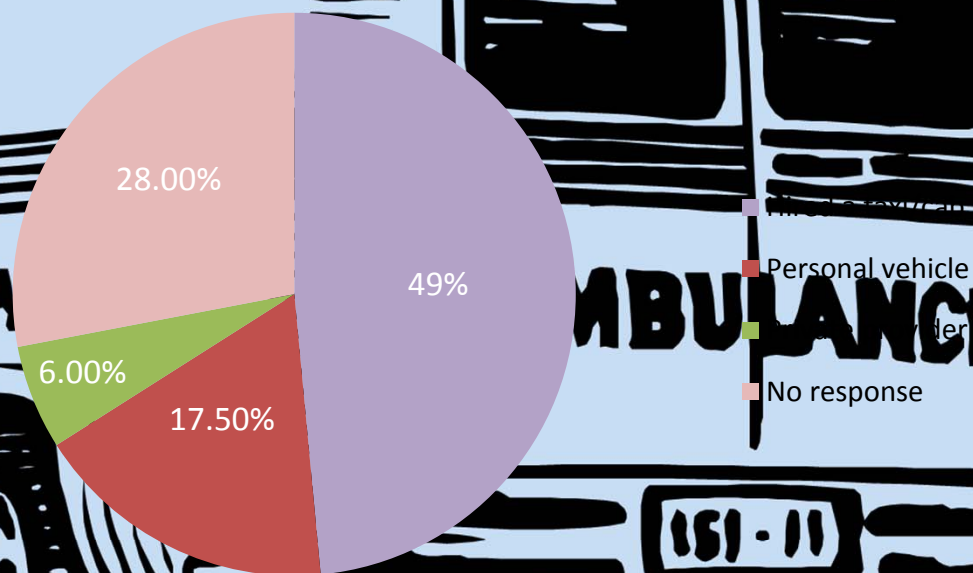
RESPONSE TIME OF AMBULANCE SERVICES



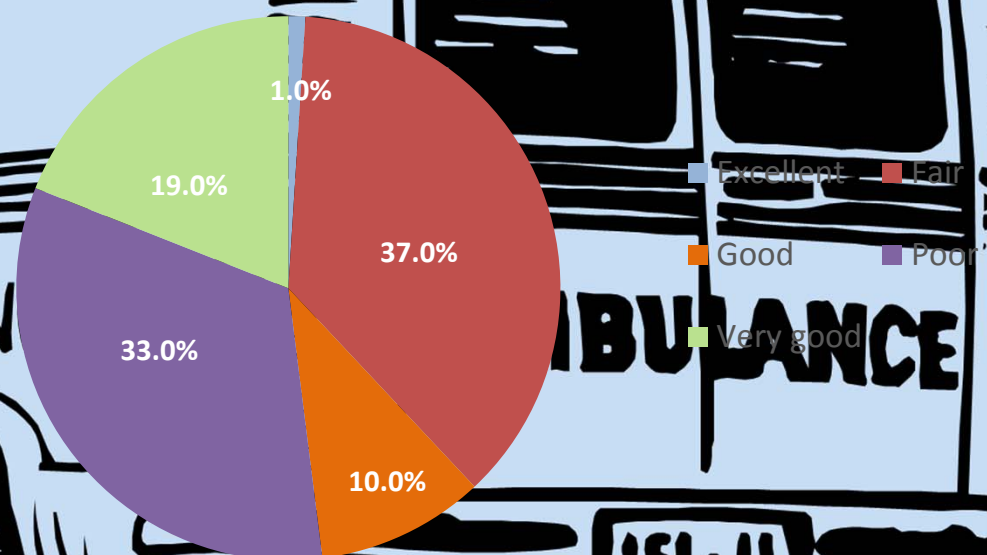
PRIVATE VEHICLE OR AMBULANCE USAGE



MODE OF TRANSPORT DURING EMERGENCY



OVERALL RATING FOR AMBULATORY CARE RECEIVED



Objective 2- Importance of various attributes in ambulance services according to prospective customers

COMPONENTS	LEVEL	PARAMETERS	LEVEL OF IMPORTANCE
VEHICLE	General appearance of the ambulance	INFRASTRUCTURE OF AMBULANCE	27%
	Cleanliness of the ambulance		
	Comfort of ride in the ambulance		
	Adequacy of ambulance equipment		
STAFF ATTITUDE	Helpfulness of staff	EMEREGENCY PERSONNEL	23%
	Attentiveness of staff		
	Empathic nature of staff		
STAFF PERFORMANCE	Ensuring of patient's comfort		
	Adequacy of explanation by staff of their actions		
	Efficiency of staff		
	Feeling of safety when staff arrive		
PROFESSIONALISM	Perceived level of training of staff		
	Professional look of staff		
	Level of competency of staff		
	Confidence of staff to keep me alive until reaching the hospital		

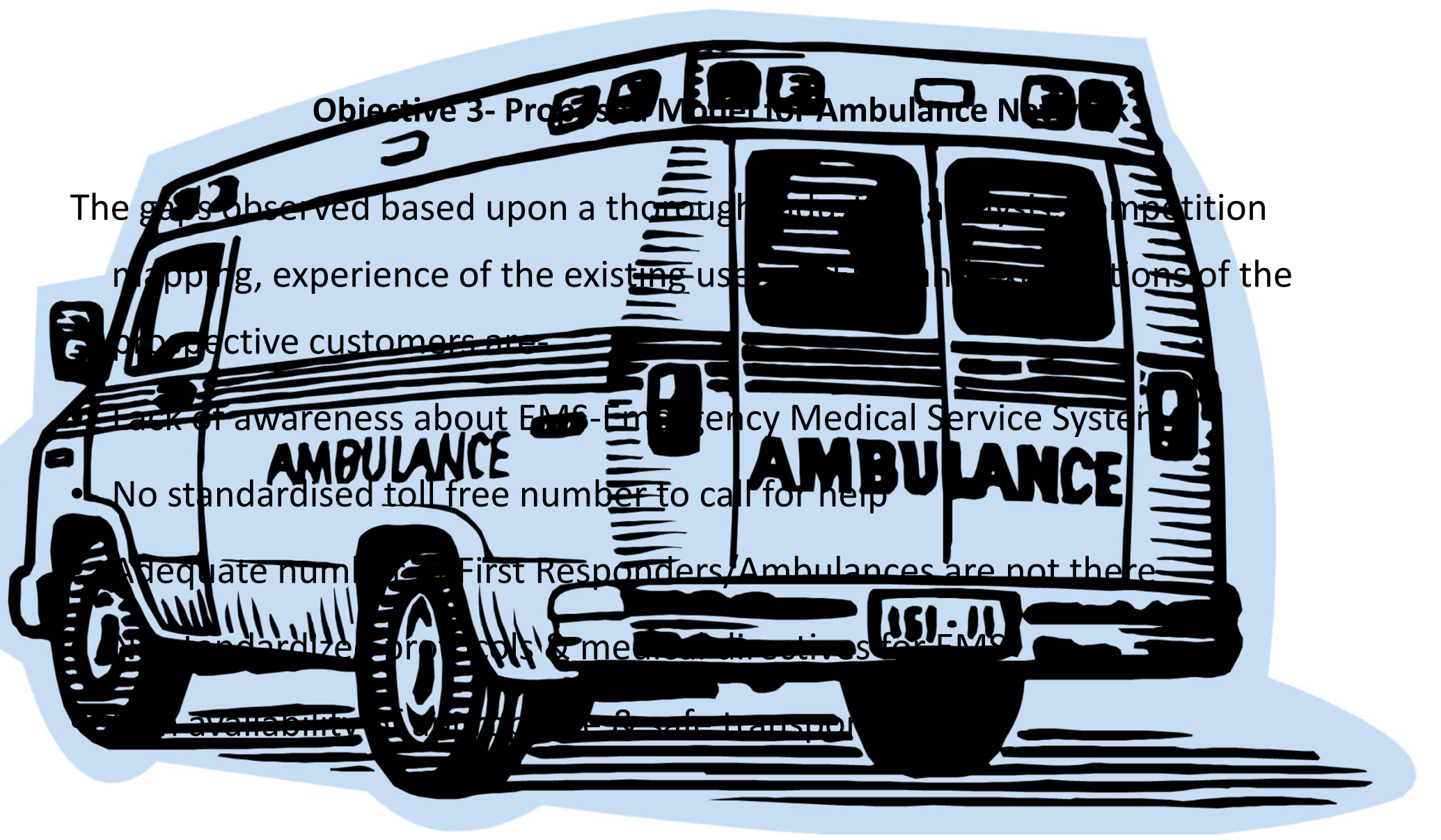
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COMPONENTS	LEVEL	PARAMETERS	LEVEL OF IMPORTANCE
EFFICIENCY OF SERVICE	Availability of staff at all times	Efficiency of Emergency Care System	31%
	Response time of ambulance to an emergency		
	Working condition of the equipments		
	Qualified and trained staff		
	Training of staff at proper intervals		
	Speed of admittance to hospital		
USAGE	What do you think would be the public perception of our (ADITYA BIRLA HEALTH) ambulance service?	Usage of Technology	20%
	Would you like to use an app for calling an ambulance service?		
	Do you think digital platform would improve the emergency services?		

Snapshot of Highly Important Parameters





Objective 3- Proposed Model for Ambulance Network

The gaps observed based upon a thorough understanding of the competition mapping, experience of the existing users, the requirements of the prospective customers are-

- Lack of awareness about EMB-Emergency Medical Service System
- No standardised toll free number to call for help

Adequate number of First Responders/Ambulances are not there

Standardize protocols & medical directives for EMS

Availability of transport & safe transport

- Lack of trained Emergency Medical Technicians
- Unskilled existing manpower
- Overcrowding at the limited number of hospitals and health facilities available
- Inadequately equipped health care facilities and lack of infrastructure
- Lack of accountability and monitoring mechanisms to ensure timely and optimal care



The major issues related to current emergency system that would be addressed in this model are-

Parameters	Current Gaps	Proposed Strategy
Efficiency of Emergency Care System	Late response time	Adequate and well equipped life support ambulances in case of any emergency
	Trauma leading to mortality due to lack of proper care at the healthcare facility	Integration of Ambulances and Emergency Room (ER)
		Location based services resulting in faster location of patients
		Monitoring arrival of ambulances at ER location
		Availability of medical records and co-morbid conditions
		Ensuring prompt and early blood availability if required
	Unskilled manpower	Regular training of emergency medical personnel at regular intervals
	Inadequate number of ambulances	Adequate number of ambulance-ALS, BLS, Cold Transport
	Low self management and healthcare	Routine visits to partner hospitals, diagnostic centres and doctors
	Low accountability and monitoring	Accountability and monitoring mechanism
	Inefficient patient care and transport	Standard Operating Procedures (SOP's) for pre-hospital triage and transport
	Inefficient services and overcrowding at limited number of healthcare facilities available	Tie-up with blood banks and quality emergency providers
	Bad working condition of ambulances	Appropriately/adequately equipped ambulances

Infrastructure of Ambulance	Non-availability of emergency transport	Adequate number of ALS, BLS, Cold transport ambulances
	Inadequate equipments	Well equipped equipments in the ambulance
	Non-availability of appropriate and safe transport	Designed ambulance with respect to patient care, comfort and ergonomics
	Frequent breakdown of equipments	Regular maintenance of equipments and the ambulance
Emergency Personnel	Unskilled/untrained staff	Provision of well qualified and trained staff
	Low level of competency	Regular training at proper intervals
	Lack of professionalism	Standard Operating Procedures Adherence
	Absence of staff	Dedicated staff for health advices and counselling
	Lack of medical personnel	Adequate medical staffing
Usage of Technology	Low usage of technology and digital platform	Cloud based platform- Improved Outcomes for Patients with Medical Emergencies through APP
		Efficient self management
		Comprehensive App features like Pill Reminder, Health Monitor, Buy Medicines
		Availability of ambulance at one click
		EMR for patients
		Visibility of partner hospital facilities on app driven workflow

Suggestions

- Before the implementation at a wider scale and at a more nuanced level, the viability of this model need to be checked through pilot studies to explore the best customer value proposition in the city of Mumbai. There are 41 empanelled hospitals out of which 112 hospitals have quality care emergency departments.

AMBULANCE

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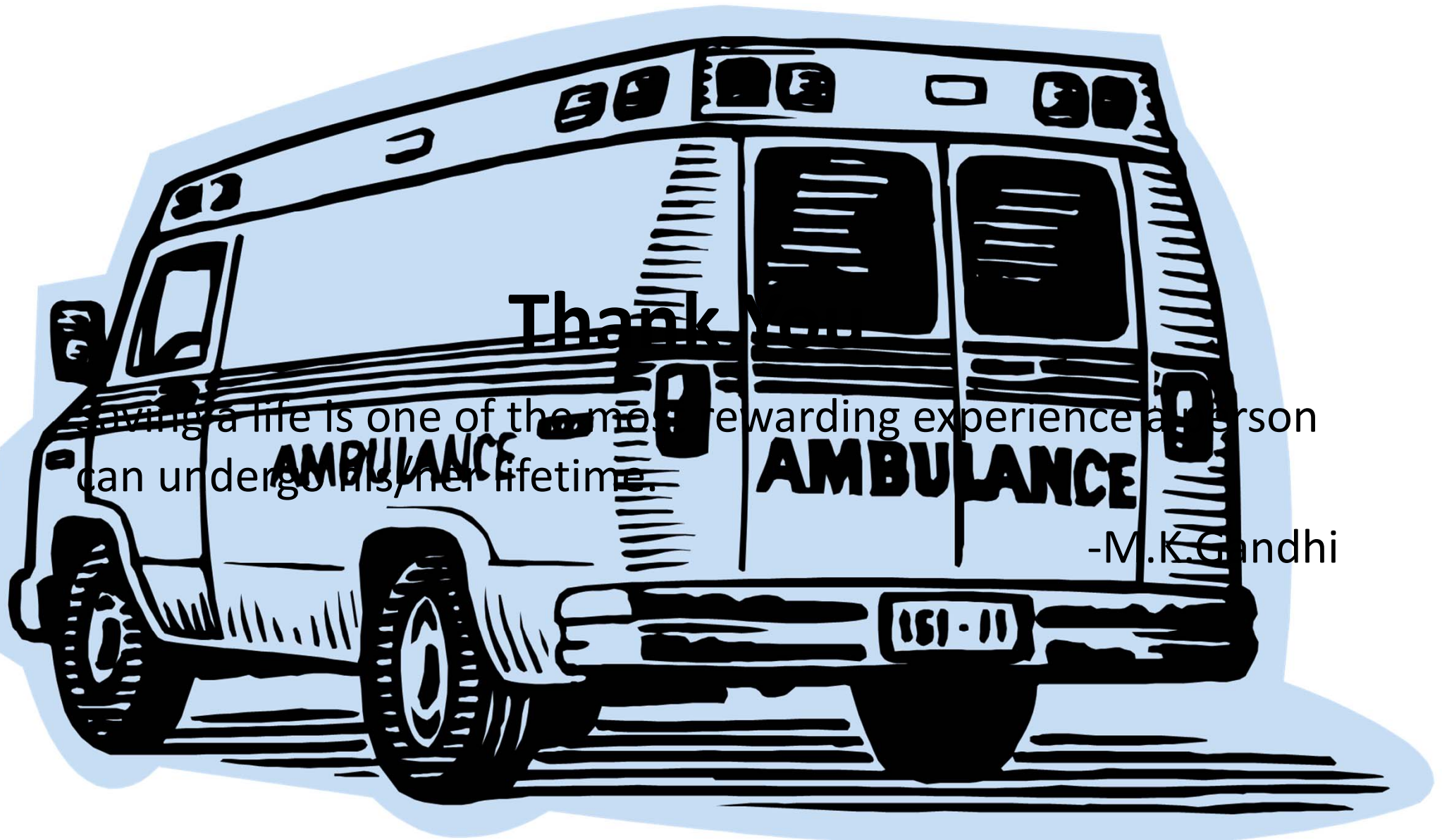
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Microsoft Office
Excel Worksheet



Microsoft Office
Excel Worksheet



Thank You

Saving a life is one of the most rewarding experience a person
can undergo in his/her lifetime.

-M.K. Gandhi