“Review of RED ambulance services and its providers in Hospitals of Bangalore”

Dissertation Submitted to`

The IIHMR University, Jaipur

for the partial fulfillment for the award of the degree of

Master of Business Administration (MBA)

in

Hospital and Health Management

Management

By

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Appendix D: Declaration by Student

DECLARATION BY STUDENT

I hereby declare that this dissertation titled **"Review of RED ambulance services and its providers in Hospitals of Bangalore"** is the bonafide record of my original research work. I declare that it has not been submitted to any other university or institution for the award of any degree or diploma. Information derived from the published or unpublished work of others has been duly acknowledged in the text.

Dr. Aarshabh Shukla

Date-14/06/2022

Appendix E: Completion Certification

CERTIFICATE

This is to certify that **Dr. Aarshabh Shukla** in partial fulfilment of the requirements for the award of the degree of **MBA in Hospital and Health Management** from the **IIHMR University, Jaipur** has successfully completed his internship at **Stanplus Technologies Pvt ltd** during April 18, 2022 to July 03, 2022.

Place: Bangalore

Date: 15 June 2022

Preceptor/Head of the Organization

Stanplus Technologies Pvt ltd

Appendix F: Certificate from Faculty Guide and School Dean

CERTIFICATE

This is to certify that dissertation titled **"Review of RED ambulance services and its providers in Hospitals of Bangalore"** is a record of the research work undertaken by Dr. Aarshabh Shukla in partial fulfillment of the requirements for the award of the degree of MBA in Hospital and Health Management from the IIHMR University, Jaipur under my guidance and supervision and his/her approach to the research study has been sincere, scientific, and analytical.

Faculty Guide	School Dean
S.P. Chattopadhyay	IIHMR University, Jaipur
IIHMR University, Jaipur	
Date	Date

Dissertation

“Review of RED ambulance services and its providers in Hospitals of Bangalore”

Abstract-

Introduction- In this study we reviewed the service of the RED ambulances in Bangalore. We successfully expanded in Hyderabad and after that now we are working in expanding in Bangalore city. The review research will help the organization in find out the areas need attention for improvement and enhancing the effectiveness of the service thereby benefiting the public and saving lives.

Methodology- A descriptive cross-sectional study was conducted in various hospitals in Bangalore city, which are collaborated with Stan plus Technologies from 18 April 2022 to 30 June 2022. In this study we interviewed more than 40 pilots, 22 relationship managers and we got 58 feedback forms from the customers.

Results- In our study we found 81% of the people was satisfied with our service in which 13% of the customer stated that we are having affordable cost, 12% of the customer rated for the flexible journey, 8% people stated that our driver was flexible, 37% customer commented for fast and excellent service and 81% of the people commented that they will recommend for Stanplus.

Conclusion- We cannot solve the problems what we have found in our organization all at once but we can and we are taking a step ahead to solve maximum problems as early as possible. As Stanplus is a startup and we are improving day by day by knowing about the problem and solving them in the best way possible.

Acknowledgement

I would like to recognize my solemn thanks to our **Institute, Indian Institute of Health Management Research** to give me such an opportunity so that we can enhance knowledge in Hospital and Health related distribution.

I genuinely thankful to **Mr. Prabhdeep**, CEO, Stanplus Technologies, for giving me opportunity to do the Dissertation in such a well reputed organization.

I would like to express my warm gratefulness to **Mr. Nagesh B**, Senior Operation Manager, Bangalore, Stanplus Technologies, for his support. From his busy schedule he took some time for me, helps me to know how the organization run and taught various things in order to facilitate my training. He was always there to help; without him I can't imagine to complete my Dissertation in a fluent way.

Thanks to my Institutional mentor **S.P. Chattopadhyay** at IIHMR University, Jaipur for completing this Dissertation and guide me in every step and clearing all my doubts about the Dissertation. And last but not the least thanks to my family and friends for their care and support, without them it is impossible to complete this Dissertation.

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Abbreviations

S. No	Abbreviations	Full Form
1	**BLS**	Basic Life Support
2	**ALS**	Advanced Life Support
3	**PTV**	Patient Transport Vehicle
4	**RM**	Relationship Manager
5	**EMS**	Emergency Medical Service
6	**EMT**	Emergency Medical Technician
7	**OPD**	Out Patient Department
8	**AED**	Automated External Defibrillators
9	**CPR**	Cardiopulmonary Resuscitation
10	**STEMI**	ST- Elevated Myocardial Infarction
11	**SRM**	Senior Relationship Manager
12	**NGO**	Non-Government Organization
13	**GPS**	Global Positioning System

Chapter 1

Introduction

India is a vast country with the population of more than 139 crore(2021) which is second largest in the world and having the area of around 29 lakh Km^2. As we are moving forward towards the development and urbanization, Emergencies and accidents are also increasing day-by-day. Each and every day we are facing challenges related to Emergency like infections, chronic diseases, trauma or injuries etc.

There were around 4 lakh accidents in India in which nearly 1.5 lakh people died in 2021 and more than 1 lakh suicide cases. About 95 percent of ambulances are just transporting dead bodies, 90 percent of the ambulances are without proper equipment and most of the EMTs are not properly trained and nearly 35 percent of the deaths are because of delayed emergency care.

Around 15 percent of all the cases that reaches to any health facilities are Emergency and trauma cases and more than 20 percent of admissions in Government Hospitals and around 35 percent in Private Hospitals. According to AIIMs Study, around 10-30 percent of all OPDs in a day are emergency cases in every hospital.

Even though around 90 percent of the hospitals are having their own in-house ambulance services and but trained paramedics are only in nearly 34 percent. Only 20 percent of the hospitals have STEMI Program with less than 10 percent of having mobile stroke units. A smaller number of the Private hospitals are having Pre-hospital arrival notification system and it is nearly absent in the Government hospitals.

Red Ambulance is India's largest ambulance network with more than 5000 Ambulances in Pan India location. The Stanplus understand the grave importance of time and quality medical care during an emergency. In most cases, these are the factors that can make or break a case. Stanplus provide the most professional & technologically advanced medical care & ambulance services that are catered providing swift & world-class healthcare services at the time of dire consequence.

Types of Ambulances at Stanplus

I. **Patient Transport Vehicle(PTV)-** PTV transport is used in non-emergency cases like dialysis, routine checkups. It generally transports patients to and from hospitals to home or other medical centres.

II. **Basic Life Support(BLS)-** BLS Ambulances are used by the non-emergency patients or those who don't require cardiac support. In this Vehicle we are having general essentials like pulse oximeter, oxygen and autoloading stretcher for patient convenience.

III. **Advanced Life Support/ Advanced Cardiac Life Support(ALS)-** These vehicles are used to address life threatening emergency cases. We used to call it as mini-ICU, as it contains Defibrillators, Ventilators, syringe pumps, Oxygen devices monitors, etc.

IV. **Air Ambulance and Air Cargo-** Now a days it is becoming common to transfer patient from one medical centre to another in air ambulance. This service is a bit costly but time effective. It contains all the necessary equipment required during the emergency situations.

Background of the study-

After establishing a great network in Hyderabad, Stanplus are now expanding its services in Bengaluru city. To improve the service delivery & smooth flow of expansion, Stanplus interested to review the services of Red Ambulance in their collaborated hospitals. The review will help the Stanplus to identify the service status and issues need to be strengthen along with the existing gaps in the Red Ambulance services in Bengaluru city.

Research question

What are the gaps in the service delivery and the status of service provider of Red Ambulance in various hospitals of Bangalore and their scope of improvement?

Objectives

- **General Objective-** To identify the service gaps in Red Ambulance service catering to different hospitals of Bengaluru.
- **Specific Objective-**
  - To assess the nature of the work done by the Relationship Manager.
  - To identify gaps in the Red Ambulance (internal & external).
  - To assess the challenges faced by the Pilots, RMs and SRMs in providing the service.

CHAPTER 2

Review of Literature

Article 1

Title- Experience from a Northern Indian State on the level of services offered by a public ambulance programme

Author name- Bhasksar Tiwari

Source-https://doi.org/10.1016/j.cegh.2020.03.005

Study Design-Descriptive cross-sectional study

Methodology- - Ten criteria were used to evaluate the quality of the ambulances, and an organized questionnaire was given to the emergency medical technicians. Interviews with emergency medical personnel in 150 ambulances were conducted, and convenience sampling was used to assess the ambulances. The relationship between the calibre of the ambulance and the knowledge of the emergency medical workers was examined using the Chi-squared test. The measure of correlation that was adjusted for covariates was obtained using logistic regression. The analysis was done using SPSS.

Findings or outcome-The vast majority of ambulances the standards were determined to have been met by 68% (n = 102). Nearly 71% (n = 107) of the EMTs had expertise that was below average. 66.7 percent (n = 101) of the ambulances that didn't satisfy the requirements had EMTs with below-average skill levels. After accounting for the effects of the EMTs' age and years of experience, it was discovered that the quality of the ambulance was unrelated to their knowledge.

Article 2

Title- Evaluation of the effects of various service levels on an ambulance service provider's workload

Author name-Marco Oberscheider

Source- https://doi.org/10.1186/s12913-016-1727-5

Study Design-Matheuristic approach

Objective- To reduce the deployed shifts' overall operating duration and to compensate overtime.

Methodology- A matheuristic solution strategy was created to address the exact optimization of request combinations as a first step in resolving the provided challenge. The vehicle route is then optimised using a Tabu Search approach using the detected possibilities as an input. In order to test five various service levels and the effectiveness of the solution technique, three sample days from the year 2012 were picked for each of Lower Austria's four areas.

Findings or outcome- As a first step in tackling the given challenge, a matheuristic solution method was developed to handle the precise optimization of request combinations. The detected alternatives are then used as an input in a Tabu Search technique to optimise the vehicle path. 3 different dates in the year 2012 were chosen for each one of Lower Austria's four regions in order to test five different levels of service and the efficacy of the solution technique. Decisions made during daily planning could greatly save operation times.

Article 3

Title- A qualitative study, feedback role in emergency ambulance

Author name- Caitlin Wilson

Source- https://doi.org/10.1186/s12913-022-07676-1

Study Design- Qualitative approach

Objective- To discover actual perspective of EMS personnel in relation to the provision of feedback as it currently stands, as well as their opinions on how feedback affects patient care, patient safety, and staff wellbeing.

Methodology- EMS experts participated in the conduct of this qualitative investigation. We chose 24 frontline EMS workers through 1 ambulance located in United Kingdom using purposive sampling, and we then conducted semi-structured interviews with them. Inductive and deductive Conceptual Network Analysis was used to examine the data through recurrent rounds of induction and deduction. Models and psychological theories both contributed to the analysis.

Findings or outcome-: Participants observed the availability of recent input. Patient outcome feedback, patient care responses, participant reviews, performance reviews, feedforward: on-scene counsel, debriefing and investigations, and coroners' reports were among the documented types of prehospital feedback. Participants expressed worry that poor reporting would compromise patient safety by impeding learning from errors. It was believed that improving feedback provision would enhance staff and patient care.

Article 4

Title- Design and technique of a Delphi research on paramedic patient assessment during critical care emergency calls

Author name- Jensen, Croskerry

Source- https://doi.org/10.1186/1471-227X-9-17

Study Design- Cross Sectional Study

Objective- To reach agreement on the key occasions when paramedics make clinical decisions during elevated emergency situations.

Methodology- For the 1st round, participants will name clinical decision-making scenarios that they believe are crucial for patient safety and outcome. The committee will rank each incident of medical decision in the second round according to its significance. The third and maybe fourth rounds will provide participants the chance to change their standing.

Findings or outcome- The most significant clinical choices paramedics make during elevated emergency calls will be revealed through this study. offering guidance for efforts related to professional growth and patient safety in the EMS sector, exposing research and educational gaps, and creating objectives for paramedic practice.

Article 5

Title - Using Ambulances Inappropriately: A Qualitative Study of Paramedics' Opinions

Author name - Deirdre, Mita

Source- PMCID: PMC4817967

Study Design- Research design in structuralism

Objective- How paramedics evaluate and assess proper versus improper usage of an ambulance

Methodology- We interviewed people with 19 paramedics who were employed in two southwest Ontario regions, and we used grounded theory analysis to examine the results.

Findings or outcome - While obviously "wrong" use is rare, "misuse" is more frequent, and paramedics identify misuse mostly by assessing patients' capacities for coping with their circumstances. Paramedics evaluate this based on a variety of patient characteristics, including the patient's age, system knowledge, system flaws, social support network, accessibility to alternate ways of travel, mobility, and experience with home treatments.

Article 6

Title- A qualitative research of the opinions and practices of emergency ambulance crew about the care of patients with non-urgent needs found gaps between policy, guidelines, and practice.

Author name- Snooks, Kearsley

Source- 10.1136/qshc.2004.012195

Study Design - Model Approach

Objective- To outline the opinions of emergency ambulance crews regarding (1) how they decide whether to transport patients to hospitals, (2) an intervention that allows them to assess patients to avoid transportation, and (3) personal experience using new protocols for doing such evaluation.

Methodology-: A Treat and Refer review began with two focus groups, including one staff from an ambulance station and another with personnel from a nearby station. Third Meeting was apprehended with staff trailed by training with 3 calendar month experience.

Findings or outcome -Earlier T&R procedures were implemented, crews claimed that their decisions regarding conveyance were influenced by experience, intuition, training, the time of call during the shift, patient desire, and the circumstances at home. Crews were supportive of the new approach but anticipated challenges in counselling patients who desired hospitalization and in making referrals to other organizations. Crews believed they required more training than they had received after using the T&R methodology. Some people thought their work and practice had both improved.

Article 7

Title- A systematic evaluation of patient safety and professional perspectives on non-conveyance in ambulance care

Author name- Remco, Lilian

Source- https://doi.org/10.1186/s13049-017-0409-6

Study Design- Systematic reviews that have undergone critical analysis, and quantitative or qualitative design

Objective- To explain non-conveyance in ambulance treatment from the viewpoints of patient care and ambulance workers.

Methodology- In June 2016, we conducted a thorough search of MEDLINE, PubMed, CINAHL, EMBASE, and citations of papers that were included. On the five subjects, we incorporated all varieties of participant designs.

Findings or outcome- 67 studies of poor to moderate quality were selected. The range of non-transportation percentages for common patient populations was 3.7% to 93.7%. There are many different first complaints among non-conveyed patients, but trauma and neurology are frequent ones. 4.6–19.0 percent of patients make an ED visit within 24–48 hours of non-conveyance, and 2.5–6.1% of patients had EMS representations. Fatality rates range from 0.2% after 24 hours to 3.5% after 72 hours to 0.3% after 96 hours. The expert, the patient, the medical system, and auxiliary instruments are among the factors that have an impact on the decision to forego transportation

CHAPTER 3

Methodology

- **Study design-** A descriptive cross-sectional study was conducted in various hospitals in Bangalore city, which are collaborated with Stan plus Technologies from 18 April 2022 to 30 June 2022.

- **Study Setting-** 24/7 rescue & medical conveyance help is offered by Stan Plus. Our fleet of 900+ ambulances, support patients across Bengaluru in 15 minutes. The company offers the following services: Backup power Ambulance, Patient Transport Ambulance, Cross Patient Transport, Medical care of children Ambulance, Clinical Cab Driven Ambulance, Air Ambulance, Air Cargo Medical Transportation, Decomposed corpse Transportation, and Freezer-box for Dead Body. Patient transport vehicles, advanced life support vehicles, medical utility vehicles, and air ambulances are some examples of ambulance types. Stan Plus believes in giving patients the proper medical care they need and makes all the essential preparations for their trouble-free bed-to-bed transportation.

- **Study population**
    - ★ **Inclusion criteria:**
        - Red Ambulance, Ambulances of other organizations, teamwork of HMs or RM's, Operation Manager and other StanPlus manpower connected to hospitals of Bengaluru.
    - ★ **Exclusion Criteria:**
        - Confidential data.

- **Study tools:**
    - Daily report of RMs and SRMs
    - End-of-Day Google form
    - Feedback form to be filled in by RMs and SRMs
    - Feedback form for the Discharged patients who opted for the Red Ambulance service.

- **Duration of study-**
    - This study is conducted in Two and half months from 18 April 2022-30 Jun 2022.

- **Sample size-**

  Convenient and Purposive sample of 22 RMs and 48 Pilots in the month of April and May and June 2022.

Few questions were asked for BLR patient report like:

- How likely would it be for you to recommend Stan Plus to a friend or colleague?
- Was the ambulance on time?
- Did you face any problem before pickup?
- Ambulance Condition Rating, did something go wrong with it?
- Did the ambulance have desired and quality medical equipment & consumables? Any irregularities find in it?
- Driver rating
- Did you opt for paramedic?
- Paramedics rating? Anything wrong noted in paramedics.
- Stan Plus representative rating?
- Was the billing and payment process easy?
- Remarks
- Testimonials
- name
- Score

Forms Filled by the HM (Health Manager)

- It contains certain questions like which Hospital they belong, what's their Shift Timing, how many rounds they took in the hospital. Their attender Supervisor name. Total number of beds in hospital. Total number of active beds.
- Number of occupancies, Discharge, cards distributed, Bookings, Enquiries

- Amount collected in Shifts (Rs). Total Distribution of Money (including Guards and attenders)
- In charge at dialysis, Mortuary and ICU.
- Current wallet Amount (Rs) and number of cases left for closing.

Challenges faced by RM (Relationship Manger)/HM in a day in Hospital

- Their feedback is taken. Suggestions for Improvement for betterment of services.

Feedback forms to be filled by Pilot

- Questions like what are the problems faced by them, suggestions needed for the improvement.

- **Sampling Technique:**
    - Non-Probability Convenience /Purposive Sampling.

- **Data collection Procedures:**
    - Primary data is collected and questionnaire is prepared with the help of my supervisor. For the questionnaire google form is prepared which contains the end of the day data. Daily report of Relationship Manager and Senior Relationship Manager is taken. Feedback forms is filled by Relationship Manager and Senior relationship Manager. And also, the feedback forms are to be filled by Discharged Patients who opted the Red Ambulance Service.
    - The Questionnaire is to be prepared in the native language and collected through Google forms.

Definitions

EMS- An inclusive medical treatment supply method is state as "EMS" in order supply both emergency and non-emergency medical treatment while a patient is being transferred outside of a hospital in an ambulance.

BLS (Basic Life Support) - It is a degree of medical expertise used to care for patients with serious ailments until they can receive comprehensive care in a hospital. Knowing how to perform CPR, utilize an AED, and clear airway obstructions are all necessary for BLS. It can be carried by qualified bystanders, paramedics, and emergency medical professionals.

ALS (Advanced Life Support) - A collection of life-saving practices and abilities that go above and beyond Basic Life Support. Another name for ALS is Advanced Cardiac Life Support (ACLS). It is used to treat cardiac crises such heart attack, stroke, infarction, and other disorders that require immediate attention.

Data Analysis Plan:

Analysis of data would be done using Google form. After collecting the feedback forms, the data is collected in Excel for its cleaning. Certain Graphs were made in Excel for the analysis. And SWOT Analysis (SWOT Analysis here indicates Strengths, Weaknesses, Opportunities and Threats) is used for the analysis of ambulance services in the Stan Plus Bangalore.

Ethical Consideration:

The required ethical permission to conduct was acquired from the relevant authorities and ambulance service stakeholders. Before giving out the questionnaire, informed written consent was obtained and each participant had a verbal explanation of the significance of the study.

Chapter 4

RESULTS

Faced by Driver-

- **Physical Problems-** During the survey, I found that most of the driver's experiences pain in the joints of hands and legs, and also in back and shoulder because of 27x7 work schedule and long trips and lack of rest. Many of the drivers are also suffering from High Blood Pressure.
- **Personal Life-** After talking to the Drivers of ambulance about their personal life, got to know that, many are facing problems in it. For instance, in one of the ambulances, two pilots are assigned for one ambulance and they are doing 24 hours of duty(alternate days). This is creating disturbance in the Work-Life Balance. They are not getting a proper time to spend with their family and their closed ones.
- **Low Salary-** Even working so hard and risking their life they are not getting proper salary for the work. It is very hard to survive in Bangalore in such a salary.
- **Prone to Infectious Diseases-** Pilots are the first line workers in Red Ambulance. They are handling the patient so they are more prone to infection. Even though we use to disinfect the ambulance after every trip but no disinfectant provides 100 percent safety.
- **Risk to Life**- Drivers are putting their life on risk for Stanplus and for the Emergency patients. Sometime they need to do the rash driving to save the life of the people and have to go for the long trips without taking any rest. We can't help them in that but we can help in other forms.
- **Lack of GPS Device-** None of the Ambulance in Stanplus have GPS device for the Map route. Drivers are facing problems while transporting patient from one place to another. This is one of the major complaints we are getting from the customers "drivers are not aware about the route". Drivers have to use their personal phone for the maps route and this is affecting their phone life.
- **Lack of Personal Damage Insurance-** At Stanplus we are not providing any Personal damage insurance to the drivers, they are risking their life as they need to do rash driving in case of Emergency. If any mishap or any accident happens while on duty, they can have some financial support for their family.
- **No increments in Salary-** As told by drivers, many of the drivers are working for more than 2 years in Stanplus and they didn't get any increment in their salary. At

least we can provide some increment to the drivers for better stability for those who are working for more than 1.5 years.

- **Un-stability in job-** This is one of the major issues that our drivers are facing during their job, their job is not stable or secured. Anytime they can be expelled from the job if they don't provide the effective service to the patients. Due to this, sometimes it creates work pressure on them and they are unable to give their best.

Faced by Relationship Managers-

- **Competitors-** There are lots of ambulance services that are taking the patient from the collaborated premises. This is one of the major issues RMs are facing in their job. In some of our ambulances we got feedback that during the night sift some other ambulance services used to take the patient from the hospital premises.
- **Internal Leakages-** In one day of my visit, I found that one of our RM on himself called one of the external ambulance services for taking the patient for patient drop. This illegal practice should be stopped and strict action should be taken against such practitioners.
- **External Leakages-** In some cases, we are losing our cases because of the hospital staff and online portal. Some of the Security guards of the hospital and some other staff provides contact details of the external ambulances as they are getting some tips or benefits from them and some of the patients used to book ambulances from online portal where they are getting cheaper ambulance service.
- **Outdated Equipment-** In some of our ambulance, EMTs stated that we are using outdated medical equipment in our ambulance and need to be update them.
- **Unacceptance by the hospitals-** In many of the hospitals, I personally examined that hospitals are not accepting our RMs. They are not allowing the RMs to take rounds in the wards and even not allowing them to talk to the patients or their relatives.
- **Un-cooperation by Drivers-** In around every hospital, we examined that Driver are refusing to go for cases if they get the case half an hour or so before finishing the shift. They don't want to give any extra time to the company.

- **No working spaces-** In around 75 percent of our hospitals in Bangalore, RMs are not having any place to sit or work. They have to work either from the ambulance or from the spaces provided for the patients.
- **Wallet Issues-** Every day in the morning, RMs need to clear their wallets or the amount they are getting from the patients. For that they need to go to the bank in their working hours. This issue is not allowing them to give their 100 percent to the job.

Responses by Customers-

1. **Positive Responses**
    - **Affordable Cost-** 8 of the customers commented that we are providing our ambulance service at affordable rates. Our main aim is not to earn money, believe in delivering the best emergency service in the quickest way possible with best quality.
    - **Flexible Journey-** 7 of the customer rated that they had flexible journey in our ambulance. For our ambulance, we daily used to check out ambulance from brakes to equipment. Everything is included in our checklist. We are having two different type of checklist one for the BLS ambulances and one for ALS. If we found any complication or problem in our ambulances, we urgently try to resolve it.
    - **Helpful Driver-** We are having BLS trained and FR trained driver in our ambulances. If required, they can even provide CPR to the patient. In our survey we got 5 comment from customers that our drivers were very helpful.
    - **Fast Service-** Stanplus guarantees to deliver the ambulance within 15 minutes and now we are working to reduce the time to 8 minutes. As we know each and every minute during the emergency is very precious for the life. In our survey we found that 15 of the customers commented that our service was very fast and reached within 10-12 minutes after their call.
    - **Excellent Service-** From 58 responses, 12 of the customers commented that our service was excellent and they had great experience with us.

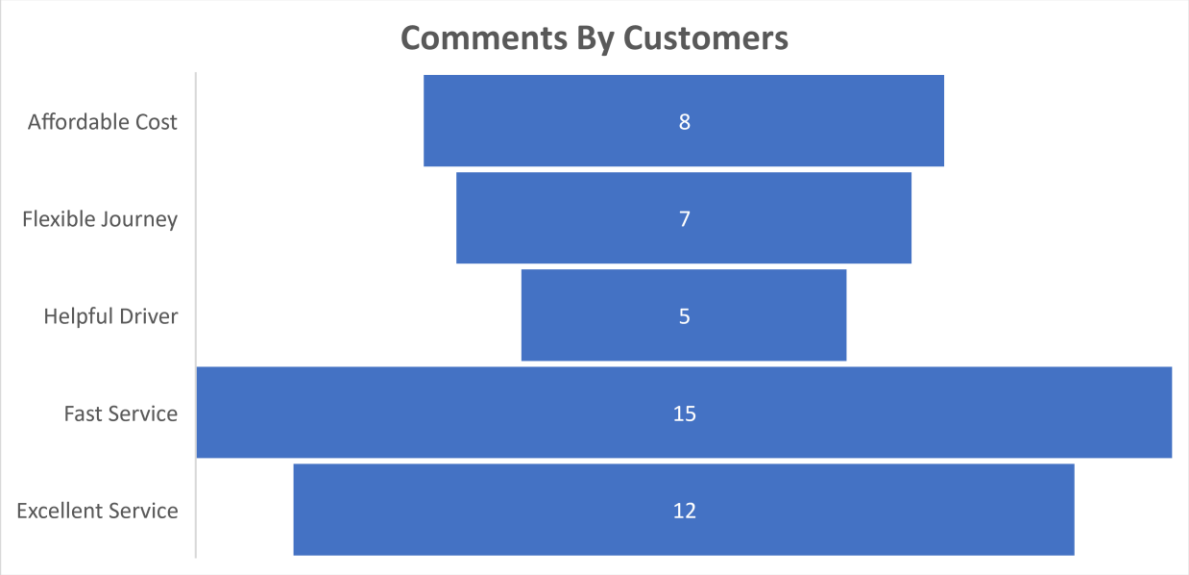


Fig. 3.1- Out of 58 Feedback forms from the customers, 8 customers rated that our cost was affordable, 7 people stated that journey was flexible with us, 5 people commented that our driver was very helpful and 27 people rated for excellent and fast service by Stanplus.

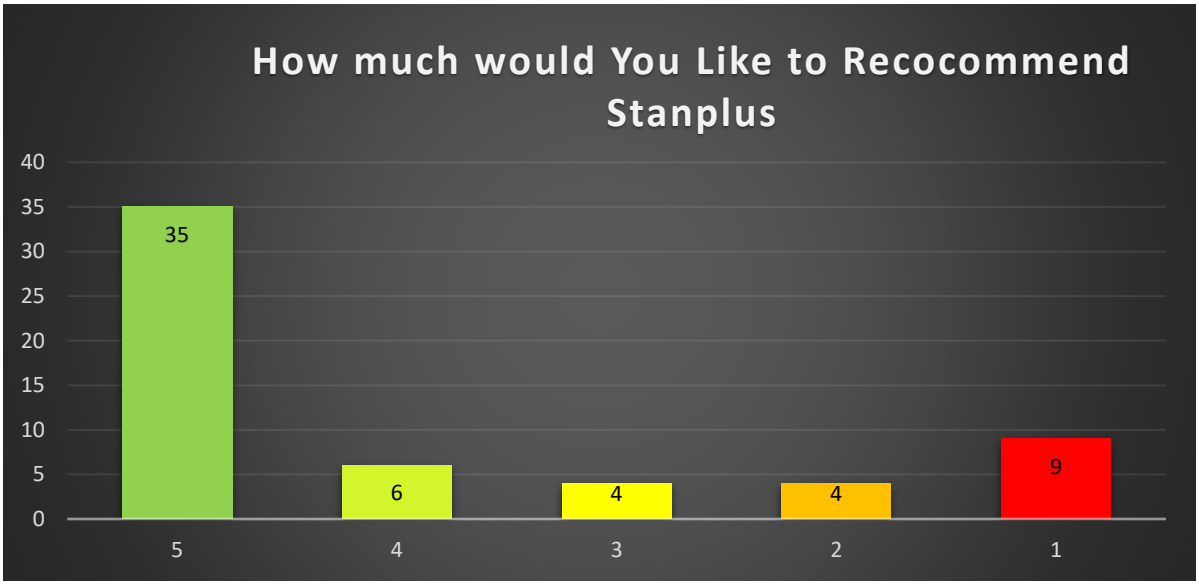


Fig. 3.2- 70 percent of the people rated that they will recommend for the organization and 22 percent rated we need to do work in our system to improve it.

2. **Area of Improvements**

- **Tips by Drivers-** Out of 58 Feedback forms, five of the customers complaints that drivers asked them for the tips or the extra money from them.
- **In-sufficient Medical Consumables**- 3 of the patient complaints that there were not sufficient medical consumables and equipment in the ambulance.
- **Improper condition of Stretcher-** 2 of the customers stated that the condition of the stretcher was not proper.
- **AC not Working-** From 58 customers responses, we found that 6 of them stated that AC was not working in their ambulance.
- **Route is unknown by Driver-** 4 feedbacks stated that driver was unknown about the route. Drivers are not god they cannot remember each and every road and the routes. They are also humans
- **Unprofessional behaviour of driver**- We got 3 complaint against the driver that his behaviour was not proper. Such kind of behaviour should not be tolerated and strict action need to be taken against them. They are the main people who comes inContact with the people so they are the faces of the organization. They need to be humble and should talk to the customers in the professional manner.
- **Representative not clear about the requirement**- We got 3 feedbacks from the customers that representative was not clear about the requirement of the patient.
- **Wrong price quote**- 4 complaints were regarding the wrong price quote.
- **Wrong pickup and Drop Location-** 2 complains were regarding the wrong price pickup and drop location.
- **Rash Driving by the Driver-** Out of 58 feedback forms by customers, only 5 customers complained that driver was driving rashly.

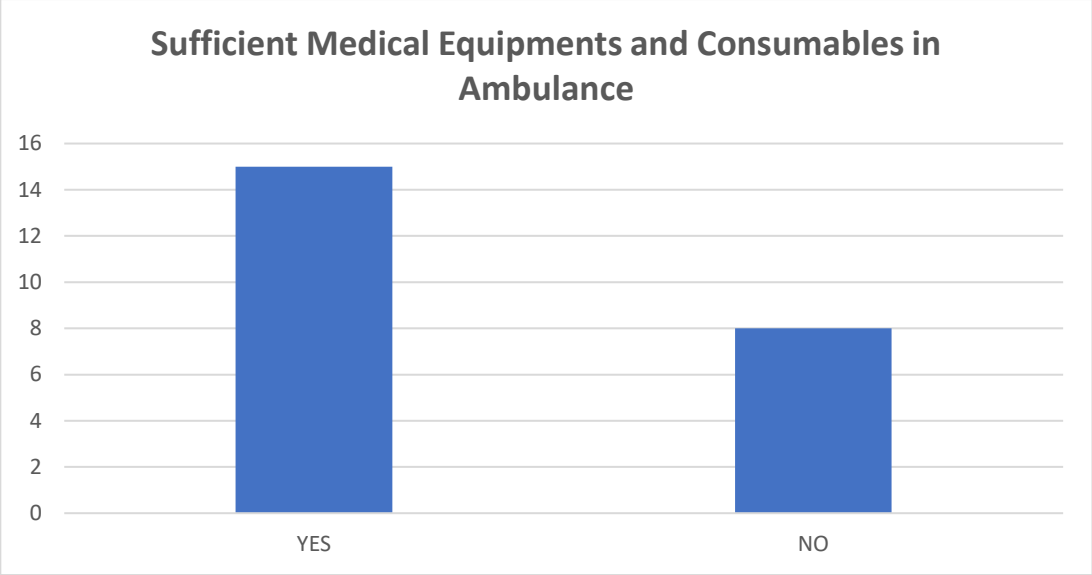


Fig 3.3- According to the survey, 23 people rated for the medical equipment, and from them, 65 percent people rated that we were having sufficient number of medical consumables and 35 gave us the negative feedback.

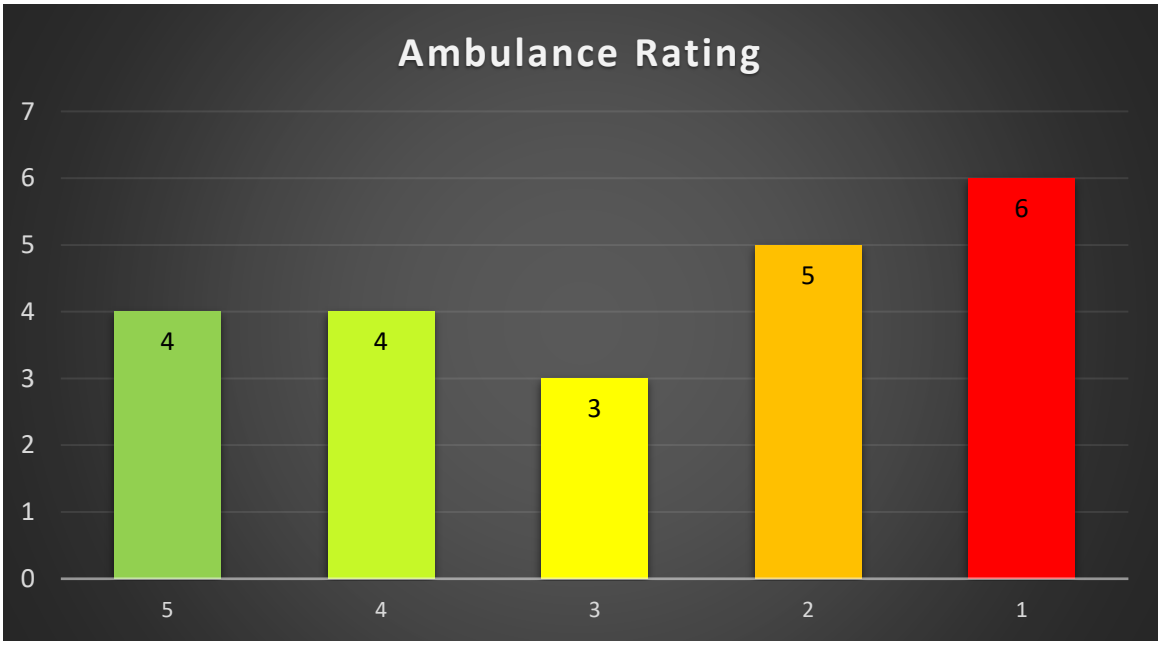


Fig 3.4- 36 percent of the rated customer stated that our ambulances was good, 13 percent of the rating was average and 50 percent people stated that we need to improve our ambulances.

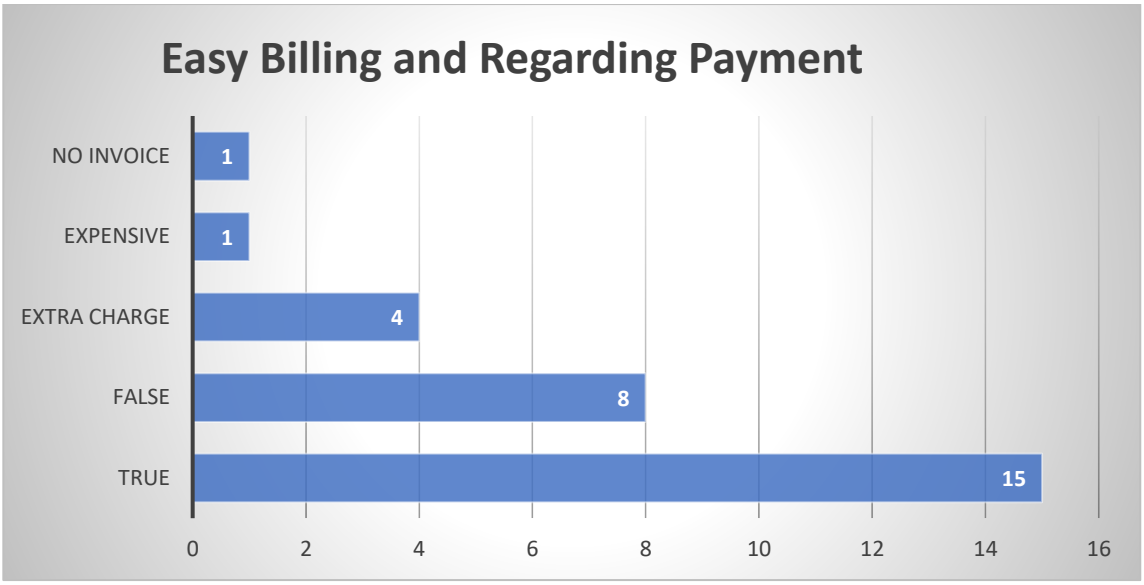


Fig 3.5- 23 customers rated for Billing and payment, in that 65 percent stated that the billing and payment was easy. 4 customers stated that they were charged extra and 1 customer stated the service was expensive and 1 for invoice was not received.

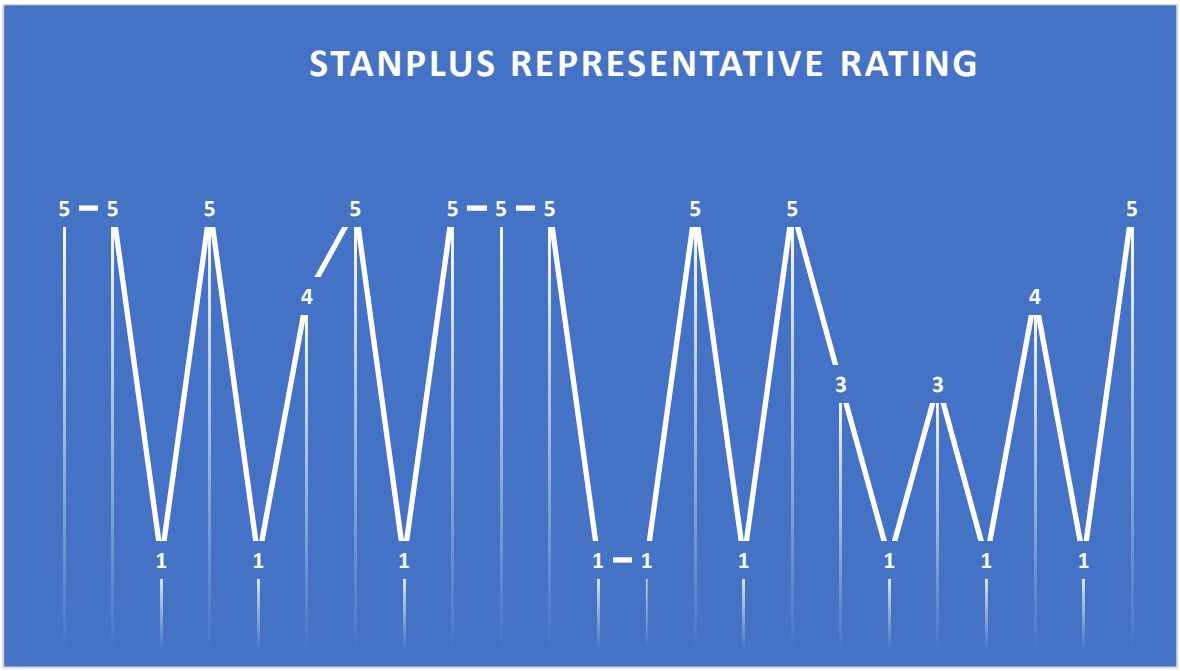


Fig. 3.6- Figure stated about the rating customer provided to our Stanplus Representative ie. Relationship Managers and Senior Relationship Managers.

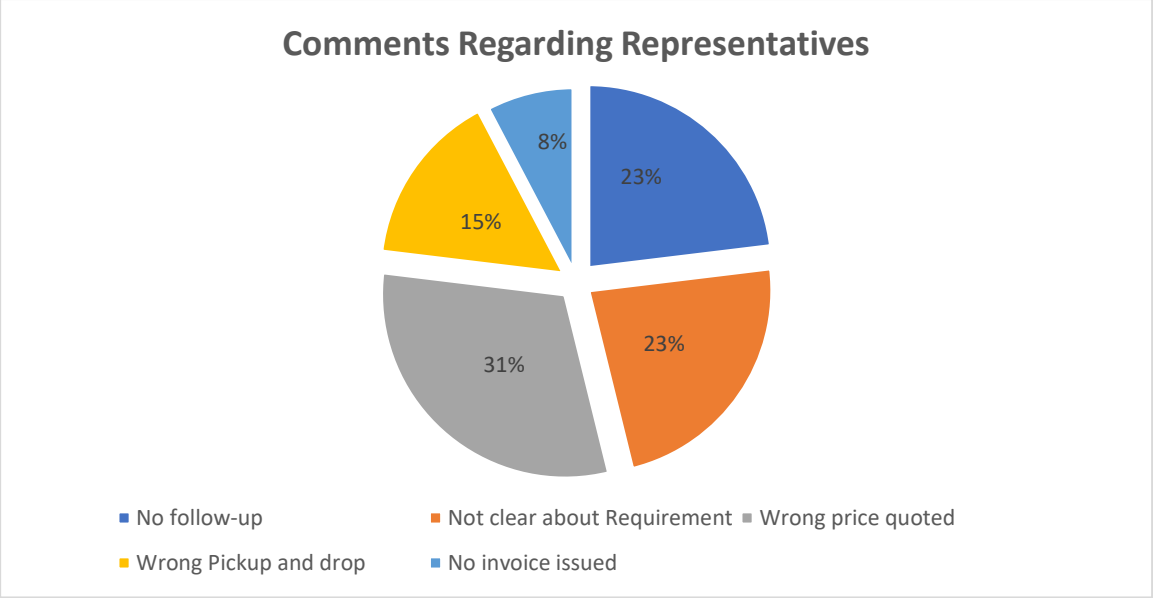


Fig 3.7- Figure shows about the comments customer given to our Representative which include no follow-up was taken by the drivers, not clear about what patient requires, wrong price quote and no invoice was given to the customers

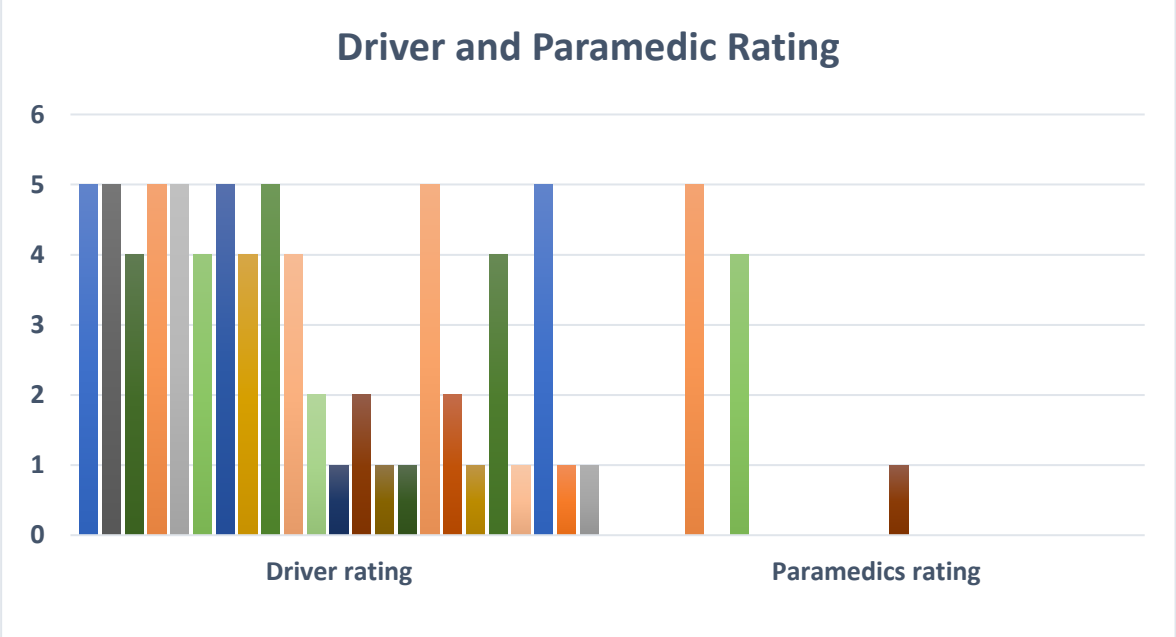


Fig 3.8- Out of 58 Feedback forms from the customers, 23 customers rated for the pilots. 13 of them rated more than 4 out of 5 and 7 of them rated our pilots for 1. And only 3 people opted for paramedic, in which 2 people gave more than 4 rating out of 5.

Chapter 5

Recommendations

- **GPS Device-** We should provide GPS device to the pilots so that we can reach the location without any problem. As some of the patients' complaints that they are not known about the location.
- **CCTV-** There must be CCTV installed in our Ambulance. This will provide us to gain the trust of the customers and they will also recommend us to their relatives and their friends. And if our driver asked for the extra amount to the customer, it will be captured in the camera.
- **Personal Damage Insurance-** Personal Damage insurance should be provided to the pilots by the company. They are the first line workers and they are risking their life. Anything could happen with them while taking
- **Increment in Salary-** We should provide increment in salary at least to the drivers who worked for more than 1 year in our organization. This will not only help us in gaining their trust and loyalty but also in case of emergency, if any driver leave the job they themselves will provide us the leads.
- **Regular Check-up-** As drivers are working for long hours, there should be regular checkup for the drivers. This will not only state the driver health condition but also helps us in knowing that are they fit for the role. And also, while hiring the driver we should check his physical strength, if he can lift a patient of more than 80 kgs in case of emergency.
- **Proper Schedule Plan for Drivers**- For Drivers there should be proper time schedule. No driver should work for more than 12 hours except in emergency case. They should get appropriate time to spend with your family.
- **Proper Training for Relationship Managers-** In some cases we fount that our representatives were not aware about the requirement of the patient. FR, BLS training and medical terminology session should be conducted should be given to our RMs, so that they can understand the needs of the patients and regular refreshing training should be given and need to be assessed.
- **Electronic Display in Ambulances-** We must install Electronic display in our ambulances for displaying of Bills to the patient. In that display we can provide our *QR code* so that customer can *pay the bill* while the ride or after completion of the ride. We can also add one feature in that if the customer wants to *give tip to the driver*, they can opt for that option.

- **RED Cabs-** We can also start the service of RED Cabs, as I personally noticed that around 90 percent of the patients take cabs after treatment as they don't require ambulance service. This will definitely increase the revenue of Stanplus.
- **Standees in every collaborated hospital-** We must install at least 3 standees in every collaborated hospital. Every Hospital doesn't allow to display the standees in their premises but, if we mention this point in the contract itself, it will really help us a lot and also work in promoting the organization.
- **3-digit number for Ambulance-** We are having a Toll-free number- 1800-121-911-911 but, this number cannot be easily memorized by any individual. We must have some 3-digit number for ambulance booking so that we can become the first priority of the people and 911 can become the universal number for ambulance booking .
- **Help Desk for Relationship Managers-** Right now we don't have desk for RMs in every hospital, we can include that hospital need to provide the help-desk for the staff of Stanplus in our contract with hospitals so that, our team can provide the service efficiently and effectively and it will also help us in promotion of Stanplus.

Chapter 6

Conclusion

We cannot solve the problems what we have found in our organization all at once but we can and we are taking a step ahead to solve maximum problems as early as possible. As Stanplus is a startup and we are improving day by day by knowing about the problem and solving them in the best way possible. In this study, we mentioned about what barriers and challenges our drivers and relationship managers face in their daily duty hours and also about the problems or inconvenience our customers had. Each startup has to cross rough paths on their way ahead but crossing the path sooner and in the most efficient way is what matters. Healthcare sector in India is growing but unfortunately, very few organizations focus on Emergency care. There are few private organizations, NGOs who run their ambulance service but not everyone knows about it and neither do we know how efficiently they work. Among these organizations, Stanplus is getting into the market and expanding its service to all the locations and providing Emergency care right from the patient site till they reach the hospital gate. We don't generally realize the importance of few seconds or a minute in our life but receiving right treatment in those few seconds in an emergency situation can change the whole game of life. Stanplus believes in taking an action right at that moment till the time the life is saved.

Chapter 7

References

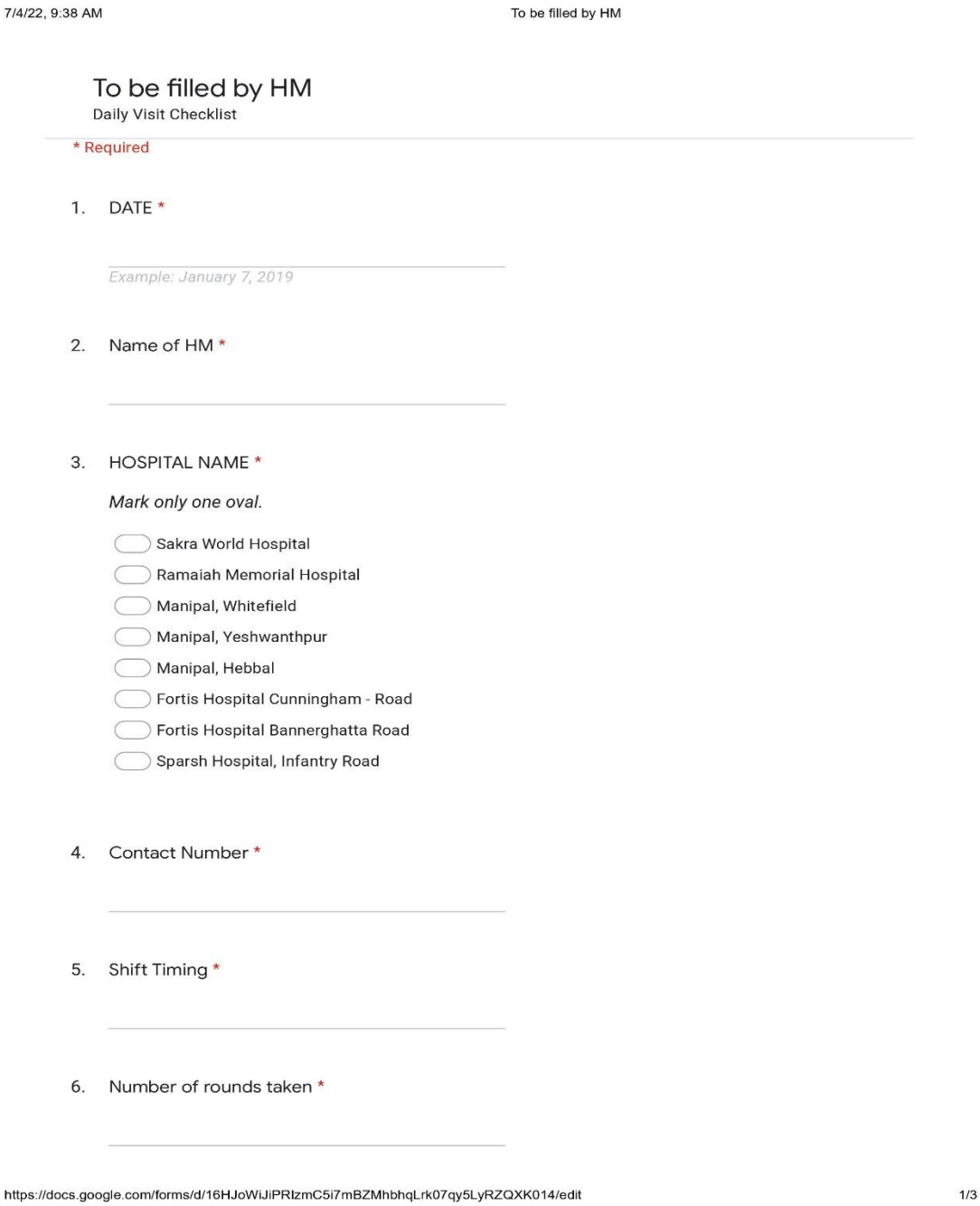
- Juhrmann ML, Vandersman P, Butow PN, Clayton JM. Paramedics delivering palliative and end-of-life care in community-based settings: A systematic integrative review with thematic synthesis. Palliat Med. 2022 Mar;36(3) 405-421. doi:10.1177/02692163211059342. PMID: 34852696; PMCID: PMC8972966**.**
- Joudyian, N., Doshmangir, L., Mahdavi, M. *et al.* Public-private partnerships in primary health care: a scoping review. *BMC Health Serv Res* 21, 4 (2021).
- European Observatory on Health Systems and Policies, Sagan, Anna & Richardson, Erica. (2015). The challenge of providing emergency medical care. *Eurohealth, 21* (4), 3 - 5. World Health Organization. Regional Office for Europe
- Snooks, H. A., Kearsley, N., Dale, J., Halter, M., Redhead, J., & Foster, J. (2005). Gaps between policy, protocols and practice: a qualitative study of the views and practice of emergency ambulance staff concerning the care of patients with non-urgent needs. *Quality & safety in health care*, *14*(4), 251–257.
- HQ, A. N. (2020, February 14). The James Lange Theory of Emotion. Retrieved April 3, 2020, from The Psychology Notes HQ:
- Pal R, Ghosh A, Kumar R, Galwankar S, Paul S, Pal S et al. Public health crisis of road traffic accidents in India: Risk factor assessment and recommendations on prevention on the behalf of the Academy of Family Physicians of India. Journal of Family Medicine and Primary Care. 2019;8(3):775.
- Wilson C, Howell A, Janes G, Benn J. The role of feedback in emergency ambulance services: a qualitative interview study. BMC Health Services Research. 2022;22(1).
- Juhrmann ML, Vandersman P, Butow PN, Clayton JM. Paramedics delivering palliative and end-of-life care in community-based settings: A systematic integrative review with thematic synthesis. Palliat Med. 2022 Mar;36(3):405-421. doi: 10.1177/02692163211059342. Epub 2021 Dec 1. PMID: 34852696; PMCID: PMC8972966.
- Ganguly E, Garg B. Quality of Health Assistants in primary Health centres in Rural Maharashtra, India. Health Services Insights. 2013;6:HSI.S11226.
- MacLeod S. The challenge of providing mentorship in primary care. Postgraduate Medical Journal. 2007;83(979):317-319.
- Ebben R, Vloet L, Speijers R, Tönjes N, Loef J, Pelgrim T et al. A patient-safety and professional perspective on non-conveyance in ambulance care: a systematic review. Scandinavian Journal of Trauma, Resuscitation and Emergency Medicine. 2017;25(1).

- Ayorinde A, Williams I, Mannion R, Song F, Skrybant M, Lilford R et al. Publication and related bias in quantitative health services and delivery research: a multimethod study. Health Services and Delivery Research. 2020;8(33):1-134.
- Snooks H. Gaps between policy, protocols and practice: a qualitative study of the views and practice of emergency ambulance staff concerning the care of patients with non-urgent needs. Quality and Safety in Health Care. 2005;14(4):251-257.
- Mehmood A, Rowther A, Kobusingye O, Hyder A. Assessment of pre-hospital emergency medical services in low-income settings using a health systems approach. International Journal of Emergency Medicine. 2018;11(1).
- Gibson G. An analysis of the demand for emergency ambulance service in an urban area. American Journal of Public Health. 1971;61(11):2158-2161.
- Sterud T, Ekeberg Ø, Hem E. Health status in the ambulance services: a systematic review. BMC Health Services Research. 2006;6(1).
- Navazi F, Tavakkoli-Moghaddam R, Sazvar Z. A Multi-Period Location-Allocation-Inventory Problem for Ambulance and Helicopter Ambulance Stations: Robust Possibilistic Approach. IFAC-PapersOnLine. 2018;51(11):322-327.
- Fisher J, Freeman K, Clarke A, Spurgeon P, Smyth M, Perkins G et al. Patient safety in ambulance services: a scoping review. Health Services and Delivery Research. 2015;3(21):1-250.

Chapter 8

Annexure

Daily Checklist to be filled by HM (Fig. 8.1)



7/4/22, 9:38 AM To be filled by HM

To be filled by HM

Daily Visit Checklist

* Required

1. DATE *

Example: January 7, 2019

2. Name of HM *

3. HOSPITAL NAME *

Mark only one oval.

- Sakra World Hospital
- Ramaiah Memorial Hospital
- Manipal, Whitefield
- Manipal, Yeshwanthpur
- Manipal, Hebbal
- Fortis Hospital Cunningham - Road
- Fortis Hospital Bannerghatta Road
- Sparsh Hospital, Infantry Road

4. Contact Number *

5. Shift Timing *

6. Number of rounds taken *

https://docs.google.com/forms/d/16HJoWiJiPRIzmC5i7mBZMhbhqLrk07qy5LyRZQXK014/edit 1/3

Fig. 8.1. 1

7. Attender Supervisor Name *

8. Total Number of Beds *

9. Total Number of Active Beds *

10. Number of Occupancy *

11. Number of Discharge *

12. Number of Cards Distributed *

13. Number of Bookings *

14. Number of Enquiries *

15. Total Collection in shift (Rs) *

Fig. 8.1. 2

16. Total Distribution of Money (Guards and attenders including) *

17. Incharge at Dialysis *

18. Incharge at Emergency *

19. Incharge at Mortuary *

20. Incharge at ICU *

21. Current Wallet Amount (in Rs) *

22. Number of cases left for closing *

Fig. 8.1. 3

Pilot/Driver Feedback Form (Fig. 8.2)

Pilot Feedback Form

We would love to hear your thoughts or feedback on how we can improve your experience!

* Required

1. Name of the Pilot

2. Hospital Name *

Mark only one oval.

- ◯ Sakra Hospital
- ◯ Ramaiah Memorial Hospital
- ◯ Manipal Hospital, Whitefield
- ◯ Manipal Hospital, Yeshwanthpur
- ◯ Manipal Hospital, Hebbal
- ◯ Fortis Hospital Cunningham - Road
- ◯ Fortis Hospital Bannerghatta Road
- ◯ Sparsh, Infantry Road

3. Problems faced

4. Suggestions for improvement

Fig. 8.2. 1

RM Feedback Form (Fig. 8.3)

RM/HM Feedback Form

We would love to hear your thoughts or feedback on how we can improve your experience!

1. Name of RM/HM

2. Hospital Name

Mark only one oval.

- ◯ Sakra Hospital
- ◯ Ramaiah Memorial Hospital
- ◯ Manipal Hospital, Whitefield
- ◯ Manipal Hospital, Yeshwanthpur
- ◯ Manipal Hospital, Hebbal
- ◯ Fortis Hospital Cunningham - Road
- ◯ Fortis Hospital Bannerghatta Road
- ◯ Sparsh, Infantry Road

3. Challenges faced in a day

4. Feedback

Fig. 8.3. 1

5. Suggestions for improvement

Fig. 8.3. 2

Customer Feedback Form (Fig. 8.4)

Customer Feedback Red Ambulance

We would love to hear your thoughts or feedback on how we can improve your experience!

1. Booking ID

2. How likely would it be for you to recommend StanPlus to a friend or colleague?

   Mark only one oval.

   - ◯ 5
   - ◯ 4
   - ◯ 3
   - ◯ 2
   - ◯ 1

3. Was the ambulance on time?

   Mark only one oval.

   - ◯ True
   - ◯ False

4. Did they pickup/start the service at the promised time slot?

   Mark only one oval.

   - ◯ Yes
   - ◯ No

Fig. 8.4. 1

5. Did you face any problem before pickup?

Mark only one oval.

- ◯ True
- ◯ False

6. What went wrong ?

7. Ambulance Condition Rating

Mark only one oval.

- ◯ 5
- ◯ 4
- ◯ 3
- ◯ 2
- ◯ 1

8. What went wrong ?

Fig. 8.4. 2

9. Did the ambulance have desired and quality medical equipment & consumables ?

Mark only one oval.

- ◯ True
- ◯ False

10. What went wrong ?

11. Driver rating

Mark only one oval.

- ◯ 5
- ◯ 4
- ◯ 3
- ◯ 2
- ◯ 1

12. What went wrong ?

Fig. 8.4. 3

13. Did you opt for paramedic ?

Mark only one oval.

- Yes
- No

14. Paramedics rating

Mark only one oval.

- 5
- 4
- 3
- 2
- 1

15. What went wrong ?

Fig. 8.4. 4

16. StanPlus representative rating

Mark only one oval.

- 5
- 4
- 3
- 2
- 1

17. What went wrong ?

18. Was the billing and payment process easy ?

Mark only one oval.

- True
- False

19. What went wrong ?

Fig. 8.4. 5

20. Remarks

21. Testimonials

22. Name

Fig. 8.4. 6