

# A STUDY ON SAVING LIVES THROUGH 1-0-8 RURAL AMBULANCE SERVICES IN TAMIL NADU

**\*Dr. I Francis Gnanasekar, M.Com., M.Phil., B.Ed., MBA., PhD**

Principal, SRM Trichy Arts and Science College, Irungalur, Tiruchirappalli.

Former Vice-Principal & Head, Associate Professor and Research Advisor, PG& Research Department of Commerce, St. Joseph's College (Autonomous) Tiruchirappalli.

**\*\* P Bastin Arockia Raj M.Com., M.Phil., MBA**

Research Scholar, PG & Research Department of Commerce,

St. Joseph's College (Autonomous) Tiruchirappalli.

**Abstract:** *The World Health Organization has estimated that globally almost 1.24 million people die annually and 20 to 50 million people are exposed to non-fatal injuries on the world's roads. In-fact, young adult (15-44 years) contributes almost 60 per cent of global road traffic deaths. Since developing countries contribute a major share of the global burden of road traffic accidents, cost of dealing with the aftermaths of road traffic accidents. As an emerging economy, India shows potential for growth. It has a stable democracy, educated and skilled young population, and a rapidly growing infrastructure. On the other hand, although life expectancy has gone up by 7.9 years since 1990, raising the quality of life for the majority remains a challenge. The present study is a descriptive one by nature. It has used secondary data for analyzing and interpretation. The data has been collected for the years 2014-15 to 2017-18. The data were analyzed and interpreted in each financial year. The pressure was on the health system to provide timely, quality and affordable medical care for reducing maternal and infant mortality, emergency trauma cases, surgical procedures and specialist medical attention. The lack of ERS was the cause of the loss of thousands of lives particularly in rural areas. To remove the affordability barriers to ambulance services in the poorer section of rural and urban areas, ambulance services were launched under the Tamil Nadu Health System Development Project (TNHSP). Emergency situation can arise due to natural calamities or unexpected events and accidents like road or health related illness. So all the people unexpectedly meet any kind of emergency situation that time they need 1-0-8 ambulance services for saving lives.*

**Keywords:** *global burden, Rural Ambulance, health, emergency situation, and saving lives and so on.*

## A STUDY ON SAVING LIVES THROUGH 1-0-8 RURAL AMBULANCE SERVICES IN TAMIL NADU

### Introduction

**“If you have saved one life in your entire life time, your life is a success”**

**- Dr. APJ Abdul Kalam, (Honorable Former President of India)**

The World Health Organization has estimated that globally almost 1.24 million people die annually and 20 to 50 million people are exposed to non-fatal injuries on the world's roads. In-fact, young adult (15-44 years) contributes almost 60 per cent of global road traffic deaths. Since developing countries contribute a major share of the global burden of road traffic accidents (RTAs), cost of dealing with the aftermaths of road traffic accidents (namely management of immediate complications; disability prevention; and long-term rehabilitation services) adds enormously to the already overburdened health care delivery system ([www.who.int](http://www.who.int)).

Realizing the global public health concern, United Nation has declared the current decade 2011–2020 as the Decade of action for road safety, with a goal of first balancing and then minimizing the anticipated magnitude of RTA-associated mortality. A wide range of socio-demographic parameters such as male gender; young age; risk taking behavior; alcohol/psychoactive substances intake; non-use of personal protective equipments; non-compliance with the traffic rules; and delay in provision of prompt medical care to the victims of RTAs; have been identified as potential risk factors in the causation or amplification of the consequences of accidents (Kanchan T.,*et.al.*, 2014).

Further, in low-resource communities and remote areas (rural/tribal) with long pre-hospital transport times, most trauma deaths have been reported even before the victims reach the hospital. (Mock C, 2013). In-fact, efficient post-crash response has been acknowledged as one of the five pillars (others being: Road safety management; safer roads and mobility; safer vehicles; safer road users) by the United Nation to bring about a significant reduction in the incidence of RTAs. These facts have seriously necessitated the need for availability and accessibility of good quality pre-hospital care in all areas of the country to minimize the RTA-related morbidity, mortality and disability.

As an emerging economy, India shows potential for growth. It has a stable democracy, educated and skilled young population, and a rapidly growing infrastructure. On the other hand, although life expectancy has gone up by 7.9 years since 1990, raising the quality of life for the majority remains a challenge (The Times of India or TOI, 2014). For example, India will miss the target of reducing maternal deaths (maternal mortality ratio or MMR) to 109 per 100,000 deliveries by 2013. The national MMR is likely to remain at 139 in 2015 (Live Mint, 2014).

In India, about 69 Per cent of the population lived in rural areas in 2011. According to the National census of 2011, the number of rural villages in India is 540,867. Out of these, only 22 Per cent of the rural population live within five(05) kilometers from the nearest town; 28 Per cent are in a range of five (05) to 10 kilometers from a town; and the majority of 50 Per cent are located 10 kilometers from the nearest town (Census, 2011).

Although the number of poor people living in urban areas is growing, poverty remains a predominantly rural phenomenon. It was in this context that the Government of India (GOI) initiated the National Health Mission (NHM). Access to quality health care was recognized as an important factor in well-being, productivity, addressing poverty and overall economic growth. The NHM therefore took on the challenge of infusing appropriate financial, technical and managerial inputs to strengthen health care delivery (Akbari ME., 2016). A Rural Ambulance

Service (RAS) was one of the key inputs, primarily to ensure timely comprehensive maternal, infant, and child care, while also providing emergency response transportation for other types of trauma and incidents requiring emergency medical care.

Emergency Response Service (ERS) is generally associated with medical services, police emergency and fire service. This forms the core group of services to be provided. However, many other functions can be combined to form a broader 'package' of ERS including emergencies like mountain rescue, cave rescue, mine rescue etc. Other emergencies like disaster relief and famine relief form part of the civil emergency services (A R Rao, *et al.*, 2018). Historically, Emergency Response Services (ERS) are in practice since 18<sup>th</sup> century (during the Napoleonic times) when a pre-hospital system was designed to triage and transport the injured from the field to aid stations<sup>1</sup>. It was first started in 1928 by an American Army Officer in the United States of America. The name of the first ambulance was 'Buick Hearse'. The various numbers used in the different countries for emergency purposes are-USA - 911, Europe – 112, England – 999, India- 1-0-8. (Chandrasekhar Reddy Bolla *et al.*, 2011). In India, 1-0-8 service was started on Aug. 15<sup>th</sup> 2005 in Andhra Pradesh in joint venture of the State Government and the Emergency Management & Research Institute. In the Indian context, a much discussed and successful PPP model for ERS is the 1-0-8 Emergency Service being managed and operationalised by EMRI (Emergency Management and Research Institute) in many states in India like Andhra Pradesh, Gujarat, Uttarakhand, and Rajasthan with around 1300 ambulances running (as on December 2008). EMRI was set up as a registered society with 17 members and most of them were family members of Mr. Ramalinga Raju, the then CEO of Satyam Technologies. Initial funds came from the personal funds of Shri Raju with Satyam Technologies providing technical support. With the expansion of fleet and services set to spread across more states, EMRI projected reaching a goal of 10,000 ambulances covering over a billion population by 2020.

Ambulance service plays a vital role in saving lives. Its primary purpose is to shift the sick or injured people from the emergency scene to the hospital. To meet the demands of different medical situations, the functions of ambulance service broadened. It can now provide 24 hour emergency assistance of home nursing and supply medical products such as beds, home oxygen and so on. Medical standby and First-aid coverage can be offered in events including private functions, corporate events, major sporting events such as triathlons, marathons etc.

The ambulance service team includes an ambulance technician and paramedic. They are well-trained in first-aid skills in order to deal with cardiac arrests, profuse bleeding, road accidents, crush and fall injuries, and much more. Paramedics determine if the casualty has to be taken to the hospital or can be treated on the emergency scene. (Francis Gnanasekar *et al.*, 2017) Ambulances are equipped with pre-hospital emergency machines to give temporary medical assistance as what hospitals can offer?

### 1-0-8 RURAL AMBULANCE SERVICES IN INDIA:

Impact of the National Rural Health Mission on Rural Ambulance Service Provision:

Under the NRHM, the Government of India initiated the National Ambulance Service (NAS) as one of the key interventions (MoHFW, 2014). The aim is to extend universal access to basic and advanced life support services to those living in rural areas. One of the key objectives is to reduce maternal, infant, and child mortality by transporting those who need emergency medical attention within the 'Golden Hour'. Emergency Response Services (ERS) transports pregnant women, infants, children, trauma (accidents, cardiac arrest and others), and other patients, and provide referral transport (inter-facility transfer).

The ministry also launched the Janani Shishu Suraksha Karyakaram (JSSK) in 2011. The initiative entitles all pregnant women delivering in public health institutions to absolutely free delivery, including caesarean section. Pregnant women are also entitled to free transport from their homes to government health facilities, between the facilities in case they are referred on account of complications, and back to their homes after delivery.

### Expanding the reach of 1-0-8 Ambulance services in rural areas

Recognizing the need to provide timely medical care in hospitals, particularly to pregnant women and infants in order to bring down MMR and infant mortality ratio (IMR), NRHM supports state governments in launching and augmenting the ERS. The NRHM provides 100 per cent financing for the capital expenditure of ambulances for 1-0-8 services. Operational cost is supported on a diminishing scale of 60 per cent in the first year, 40 per cent in the second year and 20 per cent thereafter. For 102 services, NHM provides financing for both capital and operational costs. The classification of 1-0-8 services and 102 services are discussed further in succeeding sections. NRHM stipulates that all state governments must ensure the universal availability of global positioning system (GPS) fitted ambulances, provide a reliable and assured free transport for pregnant women and newborns or infants, and establish control rooms for timely response and provision of services. NRHM also requires drop-back facilities for mothers and newborn or neonate admissions. The fleet should have a prudent mix of basic level ambulances and emergency response vehicles, and more importantly, the response time for the ambulance to reach the beneficiary is not to exceed 30 minutes (Francis Gnanasekar, *et al.*, 2018).

### 1-0-8 Rural Ambulance Services in Tamil Nadu

In Tamil Nadu 3,22,868 deliveries took place in 2018 (01<sup>st</sup> April 2017 to 31<sup>st</sup> March 2018). Among these, seven per cent of deliveries were in Health Sub centre (HSCs), another seven per cent in Primary Health Centre (PHC), 56 per cent in government hospitals and the remaining 30 per cent in private hospitals. Although 96 per cent of the total deliveries are institutional deliveries, more than one thousand maternal deaths occurred and the Maternal Mortality Ratio (MMR) was 97 per 100,000 deliveries, 79 per cent of which were attributed to direct causes ([www.tnhealth.org](http://www.tnhealth.org)). The pressure was on the health system to provide timely, quality and affordable medical care for reducing maternal and infant mortality, emergency trauma cases, surgical procedures and specialist medical attention.

The lack of ERS was the cause of the loss of thousands of lives particularly in rural areas. To remove the affordability barriers to ambulance services in the poorer section of rural and urban areas, ambulance services were launched under the Tamil Nadu Health System Development Project (TNHSP). The TNHSP initially partnered with non-government organizations to provide ambulance services in 15 districts but later partnered with an experienced organization due to various difficulties encountered. TNHSP signed an MoU with GVK6 -Emergency Management and Research Institute (GVK-EMRI) to provide emergency services for the state.

The ERS is fully funded by the Government of Tamil Nadu. The budget for the financial year 2017-18 (01<sup>st</sup> April 2017 to 31<sup>st</sup> March 2018) was ₹. 150 crore with the average expenditure per ambulance per month at ₹. 186,589.70 ([www.nhrm.tn.com](http://www.nhrm.tn.com)). The Budget variance is budgeted amount on fuel and medical consumables are too large, so the authorities of the ambulances services need to take necessary steps for realistic budget on fuel cost and medical consumable cost. In the expenses of repairs and maintenance budgeted volume amount is more

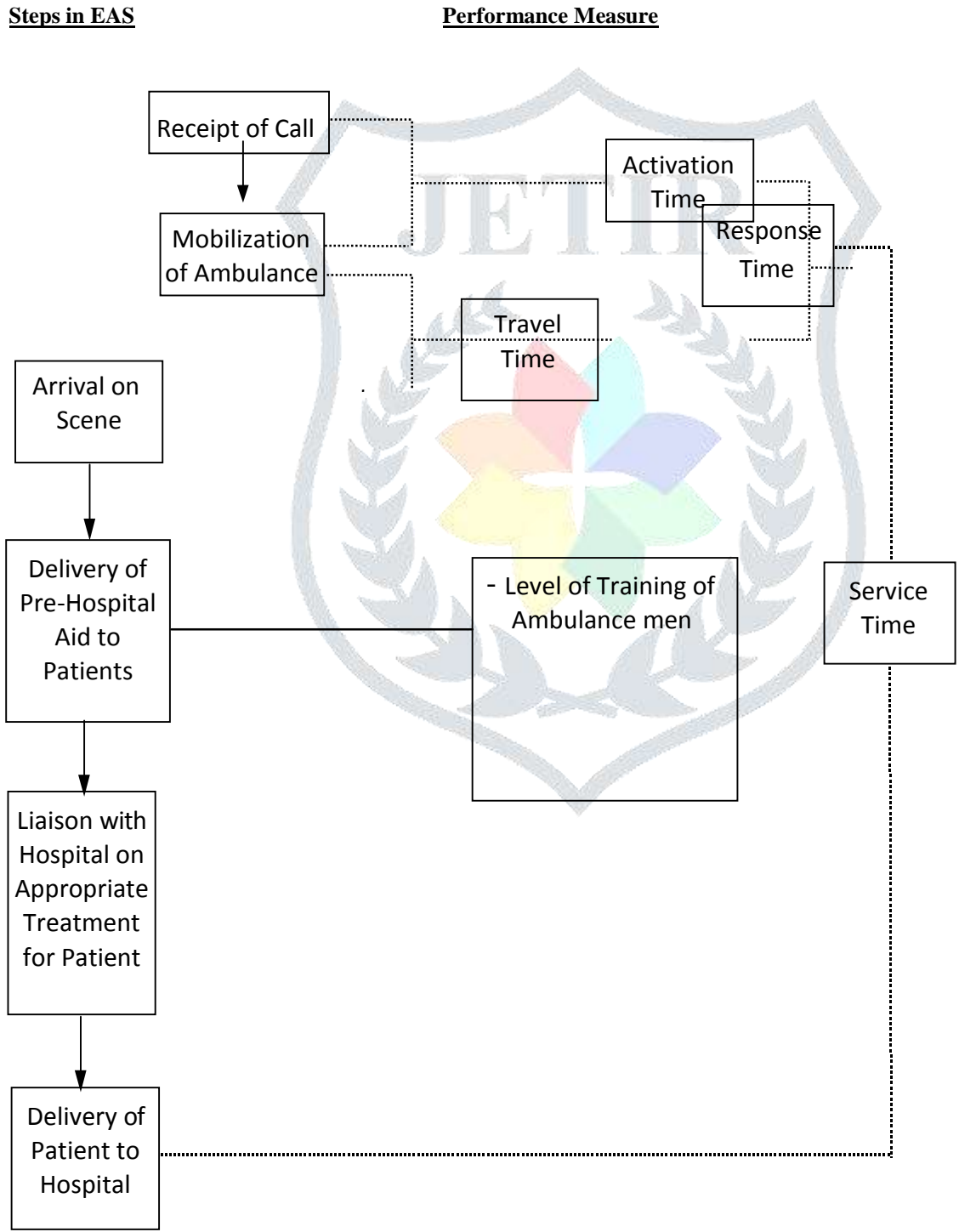
shortage (deficit) during the study period, so government officials of the ambulance services need to take cautious steps to adopt suitable method for budgeting repairs and maintenance expenses ( Francis Ganasekar *et.al.*, 2017).

All the ambulances procured by TNHSP were handed over to EMRI for retrofitting with the required specifications. On September 18, 2008, the 1-0-8 service was launched in Tamil Nadu with 385 ambulances, growing to 930 ambulances at present. The EMRI had empanelled 2,845 private hospitals until 31<sup>st</sup> March 2018 ([www.nhrm.tn.com](http://www.nhrm.tn.com)).

Currently, the call center is operating from a building temporarily allotted for this purpose but it is expected that a dedicated call center at the Directorate of Medical Services campus will be operational soon. Meanwhile, EMRI employs 3,315 persons, of whom 141 are EROs, 1,459 are EMT, 1,552 are drivers, 56 are operation staff and 107 are support staff. The male and female ratio is 3733: 1265. GVK-EMRI is run independently. An MOU was signed between GVK-EMRI, TNHSP and Tamil Nadu Health Society (nodal agency for NRHM in Tamil Nadu) detailing various parameters. TNHSP has a team under the Deputy Director that monitors performance on a daily basis. ([www.nhrm.tn.com](http://www.nhrm.tn.com)). The Project Director (with TNHSP), who is also the Mission Director (with NRHM), reviews the performance on a monthly basis and uploads the performance report to the NRHM website. A transparent, accountable and working system is also in place.

**Measure of Quality of the Emergency Ambulance Services**

**Major Steps and Performance Measures of EAS**



Sources: [www.nhrm.com](http://www.nhrm.com)

In sum, there are several possible quantitative performance measures for EAS:

- ❖ **Activation Time** - the interval between receipt of a call and mobilization of an ambulance.  
This measures vehicles availability and the effectiveness of mobilization procedures and efficiency of dispatchers.
- ❖ **Travel Time** - the interval between mobilization of an ambulance and its arrival at the scene of incident.  
This measures vehicles availability and the effectiveness of emergency cover.
- ❖ **Response Time** - the interval between receipt of a call and the arrival of the ambulance at the scene of incident. In some territories, the response time refers to the interval between receipt of a call and the arrival of the ambulance at the patients / injured. However, in this study, response time refers to the first definition.  
This measures the speed with which the ambulance service can provide assistance at an emergency incident.
- ❖ **Service Time** - the interval between receipt of a call and delivery of the patient to the hospital.  
This measures the speed with which the ambulance service complete one emergency ambulance case.

### Importance of the study

Ambulance is extremely needed for the people or patients who require the quick medical service. This type of vehicle must be on time because the second delay of the ambulance will change someone's life. Because of that, the role of ambulance is needed in the middle of society. Coming along with the paramedics, it can be used for saving the hundreds or even thousands of lives by answering the emergence calls from the society. Even though the location is far away from the downtown, in rural areas, large conurbation, or crowded seaside resorts, when requires, it can get to the places quickly (Francis Gnanasekar *et.al.*, 2017).

When it comes to the crews in ambulance service, there are several people inside the cars including driver, paramedics, and technicians. The existence of paramedics is vital in the ambulance because the paramedics will ask their medical helper which treat the patients and decide whether they should go to hospitals or just care them in the location. Therefore, one of the main roles of medical crews is to care and stabilize the patients quickly in order to prevent the development of symptoms before reaching the hospitals ( Bogstrand ST *et.al.*, 2016).

The crew will deliver the effective and immediate the life-saving treatment with the greatest mobility. Those medical crews of course are well-trained to provide the first-aid for the patients and they deal with fall injuries, crush injuries, road accidents, profuse bleeding, and cardiac arrest.

Nowadays, ambulance comes with a variety of sizes and shapes and this medical vehicle is also equipped with the wide range of vital emergency tools and machines including splints, intravenous, drugs, oxygen and the others. Besides that, all of the common ambulances are also installed with the radio for the communication. It is also used for the non-emergency purpose for example transferring the patients from the hospital to another hospital (Jone Vencloviene, 2014).

That is the roles of ambulance when it comes to how important an ambulance service is to hospitals? This medical facility vehicle delivers the best care for the patients who need the emergency care. This medical transportation also comes with the several medical crews which will make the roles of ambulance more vital.

### Statement of the Problem

Emergency situation can arise due to natural calamities or unexpected events and accidents like road or health related illness. So all the people unexpectedly meet any kind of emergency situation that time they need 1-0-8 ambulance services for saving lives. Our state has been implementing ambulance services since 18<sup>th</sup> September 2009. Ambulance service is needed by those who are in dire situation but the question arises whether all the needed people are able to avail of ambulance service and facility at the right time and in right place? The allocated financial resources are enough for implementing ambulance services in an effective manner (Francis Gnanasekar *et.al.*, 2018). If the resources are not enough what will be the results? Human lives are lost and losing trust of the authorities of citizens. It will not only have an impact on human lives but also has economic impact and overall productivity of the economy. Cost effectiveness in Ambulance services will create an impact on the citizen for trusting life saving services. The present study is an attempt to analyze the budget variances of 1-0-8 ambulance services specifically.

### Objectives

The overall objective a study on saving lives through 1-0-8 ambulance services and its impact in Tamil Nadu. The following are the more specific objectives.

- ❖ to know the measurement of 1-0-8 rural Ambulance services in Tamil Nadu; and
- ❖ to study total number of lives saved out of this service during the period of study;

### Methodology

The present study is a descriptive one by nature. It has used secondary data for analyzing and interpretation. The data has been collected for the years 2014-15 to 2017-18. The data were analyzed and interpreted in each financial year, so the data were presented for every year. Other secondary data were collected through websites, journals, books, and government records.

### Analysis and Interpretations

Table No -01

Total Number of Lives saved for the year 2014-15

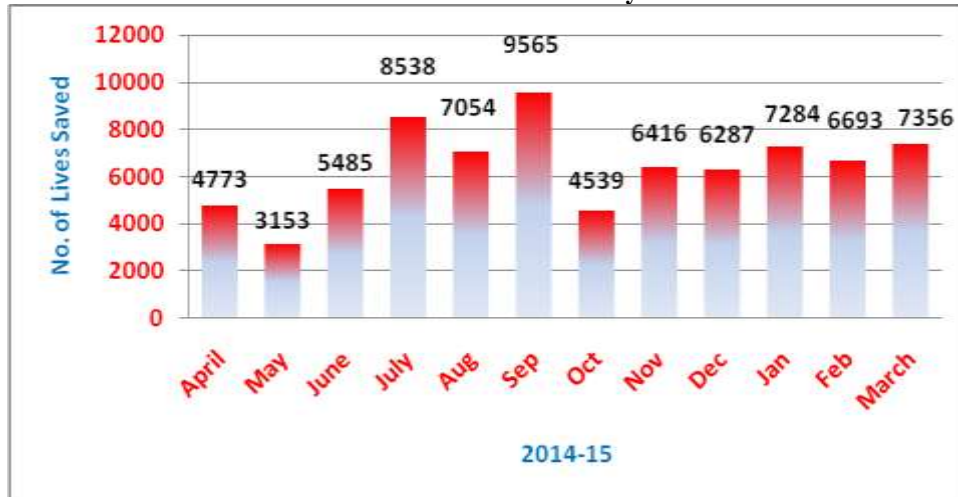
Month	Number of Lives Saved	Per cent
April	4773	6.19
May	3153	4.09
June	5485	7.11
July	8538	11.07

Aug	7054	9.14
Sep	9565	12.40
Oct	4539	5.88
Nov	6416	8.32
Dec	6287	8.15
Jan	7284	9.44
Feb	6693	8.67
March	7356	9.54
<b>TOTAL</b>	<b>77143</b>	<b>100</b>

Source: Secondary Data

The table shows that maximum 12.40 per cent of human lives were saved in the month of September(9565). Next 11.07 per cent of lives were saved in the month of July and least human lives were saved in the month of May 2014.

**Figure No -01**  
**Total Number of Lives saved for the year 2014-15**



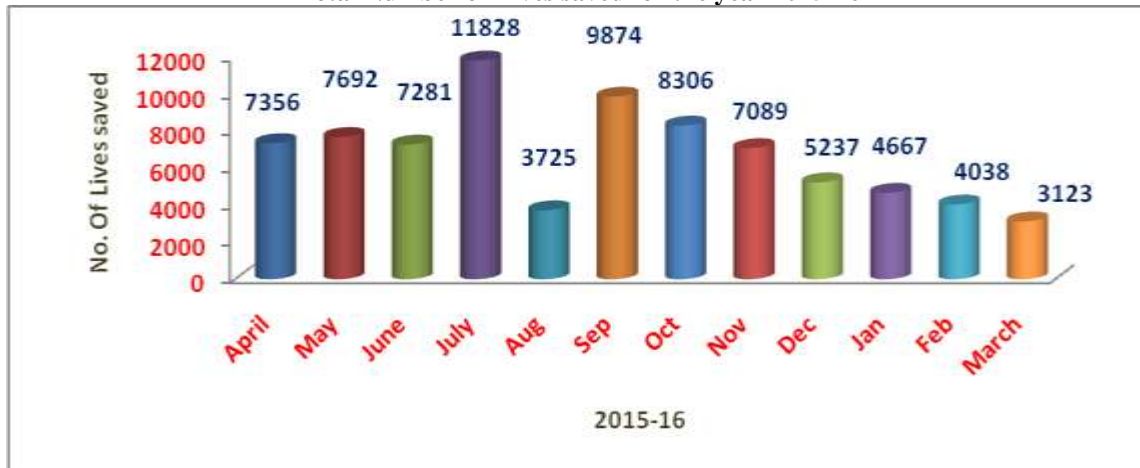
**Table No -02**  
**Total Number of Lives saved for the year 2015-16**

Month	Number of Lives Saved	Per cent
April	7356	9.17
May	7692	9.59
June	7281	9.08
July	11828	14.74
Aug	3725	4.64
Sep	9874	12.31
Oct	8306	10.35
Nov	7089	8.84
Dec	5237	6.53
Jan	4667	5.82
Feb	4038	5.04
March	3123	3.89
<b>TOTAL</b>	<b>80216</b>	<b>100</b>

Source: Source: Secondary Data

It is shows that maximum 14.74 per cent of human lives were saved in the month of July (11828). Next 12.31 per cent of lives were saved in the month of September and least human lives were saved in the month of March 2016.

**Figure No -02**  
**Total Number of Lives saved for the year 2015-16**



**Table No -03**  
**Total Number of Lives saved for the year 2016-17**

Month	Number of Lives Saved	Per cent
April	5485	7.37
May	4798	6.45
June	9039	12.15
July	4128	5.55
Aug	3600	4.84
Sep	3834	5.16
Oct	3459	4.65
Nov	9735	13.09
Dec	8889	11.95
Jan	8723	11.73
Feb	7104	9.55
March	5580	7.51
<b>TOTAL</b>	<b>74374</b>	<b>100</b>

Source: [www.nhrm.tn.com](http://www.nhrm.tn.com)

The table shows that maximum 13.09 per cent of human lives were saved in the month of November (9735). Next 12.15 per cent of lives were saved in the month of June and least human lives were saved in the month of October 2016.

**Table No -04**  
**Total Number of Lives saved for the year 2017-18**

Month	Number of Lives Saved	Per cent
April	6488	6.65
May	13663	14.00
June	3010	3.09
July	11914	12.21
Aug	5341	5.47
Sep	18994	19.47
Oct	5028	5.15
Nov	3741	3.83
Dec	4823	4.94
Jan	10737	11.01
Feb	8611	8.83
March	5210	5.34
<b>TOTAL</b>	<b>97560</b>	<b>100</b>

Source: Secondary Data

The table shows that maximum 19.47 per cent of human lives were saved in the month of September (18,994). Next 14 per cent of lives were saved in the month of May and least human lives were saved in the month of June 2017.

**Suggestions**

The present study gives the overall perspectives of the efforts and process involved in 1-0-8 ambulance services for well being of the people of the state. But it has some obstacles in order to provide effective services for the beneficiaries. So the researcher is pointed out some of the recommendations to the authorities and officials.

The ambulance services saving the life of human being. In this regard the employees engaged in the ambulance services must know the importance of golden hour and their duties. So the authorities take initiatives to give training of ambulance service employees for effective implementation of services.

From the analysis most of the people are not aware of ambulance services, so it is also consider as an obstacle of effective utilization of ambulance services. This may help the youth aware of 1-0-8 services and emergency management tactics. Because, preparation through education is more preferable than learning through tragedy(Francis Gnanasekar., *et.al.*, 2018) The authorities to take effort to make popular and publicity of the ambulance services in specifically mention the dialing number of 1-0-8.

### Conclusion

As an emerging economy, India shows potential for growth. It has a stable democracy, educated and skilled young population, and a rapidly growing infrastructure. On the other hand, although life expectancy has gone up by 7.9 years since 1990, raising the quality of life for the majority remains a challenge. The pressure was on the health system to provide timely, quality and affordable medical care for reducing maternal and infant mortality, emergency trauma cases, surgical procedures and specialist medical attention. The lack of ERS was the cause of the loss of thousands of lives particularly in rural areas. To remove the affordability barriers to ambulance services in the poorer section of rural and urban areas, ambulance services were launched under the Tamil Nadu Health System Development Project (TNHSP). Emergency situation can arise due to natural calamities or unexpected events and accidents like road or health related illness. So all the people unexpectedly meet any kind of emergency situation that time they need 1-0-8 ambulance services for saving lives.

### Reference

1. <http://www.who.int/features/factfiles/roadsafety/en/index.html#> .
2. [http://www.who.int/roadsafety/decade\\_of\\_action/plan/en/](http://www.who.int/roadsafety/decade_of_action/plan/en/)
3. [www.census2011.in.com](http://www.census2011.in.com) accessed on 08<sup>th</sup> November 2018.
4. *Journal of Forensic Leg Med.*19 (1)448–51.
5. *International Journal of Control Saf Promot.*10(2):45–51.
6. *Journal of human ecology* 34(1)49-52
7. [www.emri.in.com](http://www.emri.in.com) accessed on 08<sup>th</sup> November 2018.
8. <http://timesofindia.indiatimes.com/india/Life-expectancy-in-India-goes-up-by-7-9-years-since-1990-UNDP-report/articleshow/38964081.cms>. Accessed on 08<sup>th</sup> November 2018.
9. <http://www.livemint.com/Opinion/55N9wi8w2SO1IEE9MHPvaL/Distance-and-institutionaldeliveries>. Accessed on 08<sup>th</sup> November 2018.
10. [www.nhrm.tn.com](http://www.nhrm.tn.com) accessed on 12<sup>th</sup> September, 2017.
11. *International Journal of Advance Computer Sciences And Management Studies* 2017; 5(11)62-68
12. *International Journal of Creative Research Thoughts* 2018; 6(1)770-778.
13. *East Mediterr Health Journal* 12(1)382–90
14. *Annals Journal of Emergency Medicine*,19(5)536-546.
15. *International Journal of Innovative Research & Development* 3(13)410-413.
16. *International Journal of Tropical Disease & Health* 17(2): 1-12, 201.
17. *Research Review International Journal of Multidisciplinary* 2018: 3(11)1-7.

### Authors Profile



**Dr. I Francis Gnanasekar., M.Com., M.Phil., B.Ed., MBA., PhD.** Principal, SRM Trichy Arts and Science College, Irungalur, Tiruchirappalli, Former Vice Principal and Head, PG & Research Department of Commerce, St. Joseph's College(Autonomous), Tiruchirappalli. He has 34 years of rich experience in the field of teaching in Commerce. He was in different capacities in his service namely Vice Principal, Head, Placement Officer, and Chairman in Board of Examination and so on. He is honoured as chief guest and external examiner in many National and International seminars, workshop and PhD Viva. He is authored five books namely Portfolio management, Online shopping through Social Networking , Marketing Strategy and so on. He is produced 14 PhD's and more than 70 M.Phil Graduates. He has Published more than 91 research papers in various National and International Highly Indexed, and UGC Referred Journals. He has done many major and minor UGC projects.



**P Bastin Arockia Raj., M.Com., M.Phil., MBA., SET.,** Research Scholar, PG & Research Department of Commerce, St. Joseph's College(Autonomous), Tiruchirappalli. He is working as a Assistant Professor in the Department of Business Administration, St. Joseph's College (Autonomous), Tiruchirappalli. He is Published 11 research papers in National and International Journals. He is pursuing PhD research Under the Guidance of Dr. I Francis Gnanasekar., M.Com., M.Phil., B.Ed., MBA., PhD. Principal, SRM Trichy Arts and Science College Irungalur, Tiruchirappalli. Former Vice Principal and Head, Associate Professor of Commerce, St. Joseph's College(Autonomous), Tiruchirappalli.