

**Summer Training at  
National Health Mission, Rajasthan**

- **Severity of Post-Traumatic Stress Disorder (PTSD) in 108 Ambulance Workers**
  - **Trend Analysis of Major Chief Complaints**

**By  
Henna Juneja**

**Under the guidance of  
Dr. Tanjul Saxena**

**MBA Hospital & Health Management  
2017-2019**

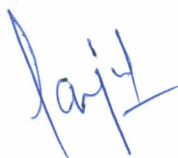
  
*Institute of Health Management Research*  
**The IIHMR University, Jaipur**  
**2018**

**CERTIFICATE**

This is to certify that **Dr. HENNA JUNEJA** has undergone summer training in NHM RAJASTHAN, Jaipur from 12<sup>nd</sup> April to 2<sup>nd</sup> June '2018.

The candidate herself completed the project assigned to her during summer training. Her approach to the project was sincere and proactive. This summer training is in partial fulfillment of the course requirement recommended for the award of MBA in Hospital and Health management.

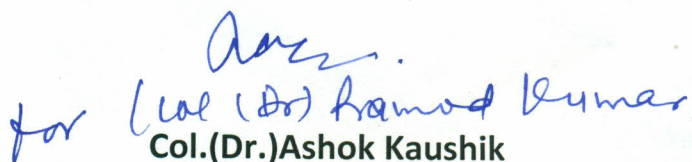
I wish her success in all her future endeavors.



**Dr. TANJUL SAXENA**

**Associate Professor**

**IIHMR University, Jaipur**



**Col.(Dr.)Ashok Kaushik**

**Dean (Academic & Student Affair)**

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No. F 2 (153) NHM/SPM/2017/ 399

Dated: - 04/06/18

## CERTIFICATE

This is to certify that **Dr. Henna Juneja** , student of MBA Institute of Health Management Research (IIHMR, Jaipur) has successfully completed her Summer Training Program at NHM, Rajasthan from **12<sup>th</sup> April, 2018 to 2<sup>nd</sup> June, 2018**. She has worked on the project- **Severity of PTSD in 108- Ambulance workers**.

Her performance was found satisfactory. We extend her good wishes for a bright and successful career ahead.

  
Director-RCH

## ACKNOWLEDGEMENTS

The summer training opportunity I had with NHM Rajasthan was a great chance for learning and professional development. Therefore, I consider myself lucky as I was provided with an opportunity to be a part of it.

I am using this opportunity to express my deepest gratitude and special thanks to the MD NHM Mr. Naveen Jain who despite of having an extraordinarily busy schedule, took out time to hear and guide me to carry out my project in their esteemed organisation.

I express my deepest thanks to Dr. Jalaj Vijay , State programme manager and Ms. Shikha Sharma, Consultant IAP, for taking part in useful decisions and giving valuable advices and arranged all facilities to make my work easier.

It is my radiant sentiment to place on my record with best regards and deepest sense of gratitude to Dr. Tanjul Saxena, my mentor at IIHMR University. I am thankful to her for her advices which were extremely beneficial for my study, both theoretically and practically. Without her constant guidance, it would not have been possible to complete my work in an appropriate manner.

I note this opportunity as an important milestone in my career development. I will strive to use the acquired knowledge and skills in the best way possible.

Sincerely,  
Henna Juneja



## CONTENTS

| SR.NO. | CONTENTS                                                                                                                                                                                                          | PAGE NO. |
|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| 1.     | Abbreviations                                                                                                                                                                                                     | 4        |
| 2.     | About the organization                                                                                                                                                                                            | 5        |
| 3.     | Organogram                                                                                                                                                                                                        | 7        |
| 4.     | IAP                                                                                                                                                                                                               | 8        |
| 5.     | Process flow of IAP                                                                                                                                                                                               | 11       |
| 6.     | Project –I <ul style="list-style-type: none"><li>• Introduction</li><li>• Literature review</li><li>• Rationale</li><li>• Objectives</li><li>• Methodology</li><li>• Findings</li><li>• Recommendations</li></ul> | 12-24    |
| 7.     | Project- II <ul style="list-style-type: none"><li>• Introduction</li><li>• Objectives</li><li>• Methodology</li><li>• Findings</li></ul>                                                                          | 25-36    |
| 8.     | References                                                                                                                                                                                                        | 37       |
| 9.     | Annexure                                                                                                                                                                                                          | 38       |

## ABBREVIATIONS

NHM- National Health Mission

IAP- Integrated Ambulance Project

DAA- Dial an ambulance

NMR- Neonatal mortality rate

MMR- Maternal mortality rate

SIHFW- State Institute of Health and Family Welfare

RSHS- Rajasthan State Health Society

ERO- Emergency Response Officer

ALS- Advanced life support

BLS- Basic life support

EMT- Emergency management technician

GPS- Global positioning system

PTSD- Post traumatic stress disorder

## ABOUT ORGANISATION

National Health Mission was launched by the Government of India on 1<sup>st</sup> may 2013 subsuming the National rural health mission and National urban health mission.

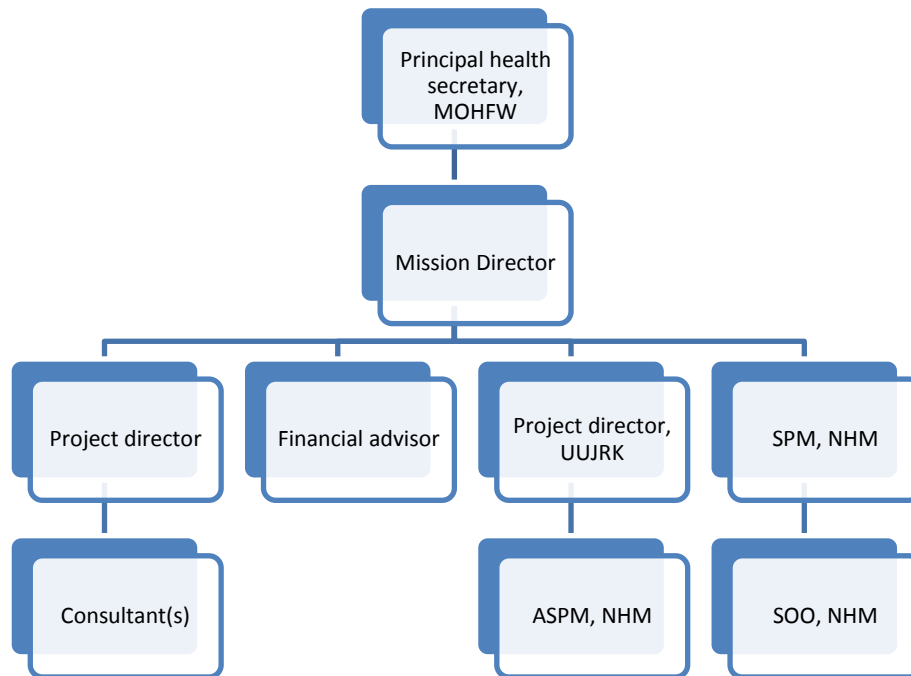
### Vision of the NHM

“Attainment of Universal Access to Equitable, Affordable and Quality health care services, accountable and responsive to people’s needs, with effective inter-sectoral convergent action to address the wider social determinants of health”.

### Projects of NHM Rajasthan

- BSBY- Bhamashah Swasthya Beema Yojna
- RBSK- Rashtriya Baal Swasthya Karyakram
- CHIRAYU- Reduction of neonatal mortality
- RKSK- Rashtriya Kishore Swasthya Karyakram
- (RMNCH+A)-Reproductive, Maternal, Newborn, Child and Adolescent Health
- JSSK- Janani Shishu Suraksha Karyakram

## ORGANOGRAM OF NHM RAJASTHAN





## IAP

“Integrated Ambulance Services” as “Dial an Ambulance Service Project” Is currently only operating in the state of Rajasthan.



Delay in reaching to an appropriate health facility is considered to be one of the prime factors contributing to high number of deaths in emergencies. It also results in high NMR and MMR if the pregnant women or sick new borne doesn't get a prompt referral transport within specified time.

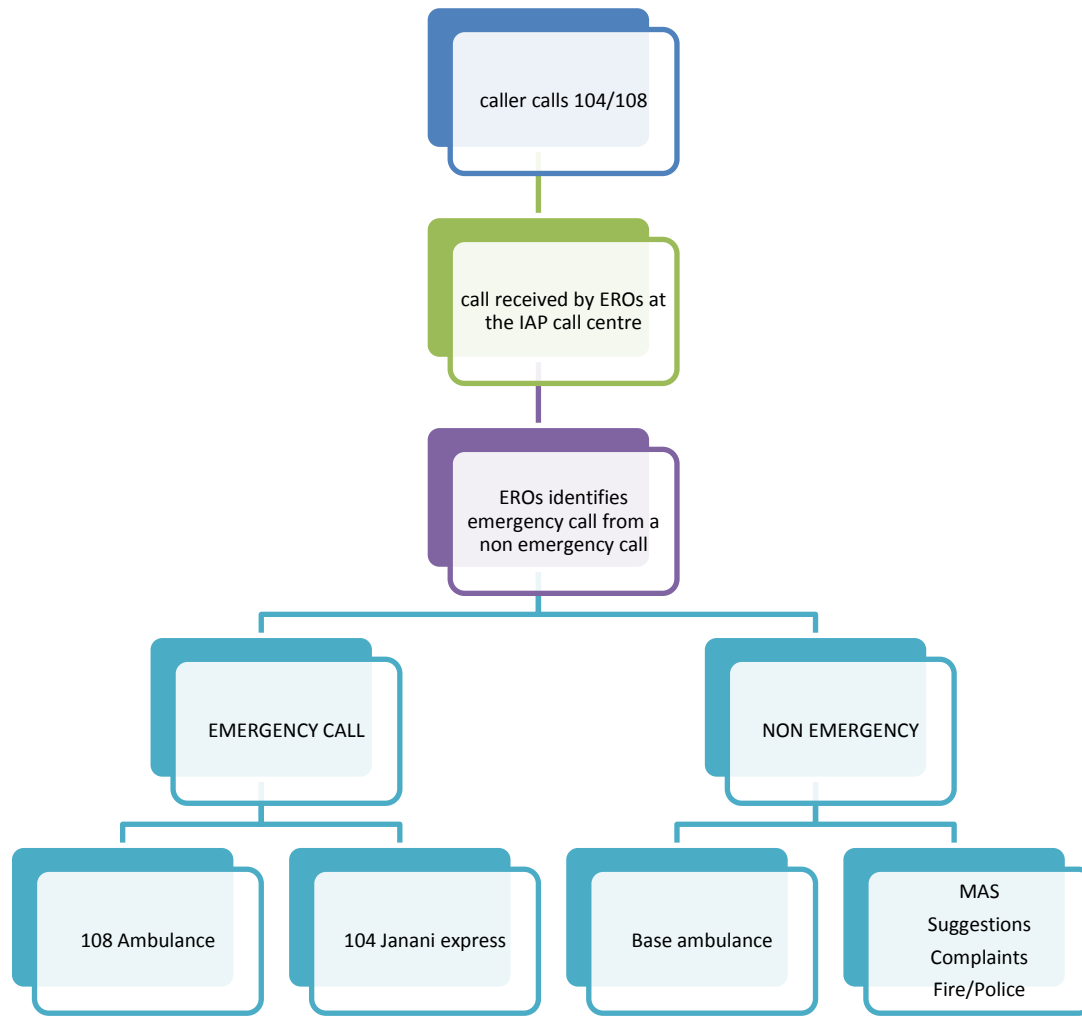
**Integrated Ambulance Service Concept: -**

Caller can dial a single number from anywhere in Rajasthan in case they need-

1. Services of emergency/referral transport either through 108 or 104
2. Services of 104 Janani Express,
3. Medical Advice,
4. To lodge complaint, counseling services, information
5. Need an ambulance for non-emergency medical transport.

**Emergencies related to Police and fire** are also reported on the same number. Police and Fire emergencies are referred to nearby police station/fire station.

## Process flow of IAP



PROJECT-I

SEVERITY OF POST  
TRAUMATIC  
STRESS  
DISORDER(PTSD) IN  
108 AMBULANCE  
WORKERS

## ❖ Introduction

PTSD is a mental disorder that develops in some people who have experienced a shocking, dangerous or life threatening events.

### Symptoms-

1. Flashbacks –reliving the trauma again and again
2. Nightmares
3. Alarming thoughts and reactions
4. Trying to stay distant from places, objects that are remind of the trauma.

## ❖ Literature review

The study examined the prevalence of post-traumatic stress disorder (PTSD), depression, and anxiety in a sample of emergency ambulance personnel. The overall rate of PTSD was 22%. **(Levels of mental health problems among UK emergency ambulance workers. P Bennett,Y Williams, N Page,K Hood, M Woollard.)**

## ❖ Rationale

EMTs, medical assistants, Fire Fighters, Police Officers and Emergency Department Personnel serve to us in the times of our greatest need. Worldwide 1 in 10 emergency

workers have PTSD. Ambulance personnel are the hardest hit.

### ❖ **Research objectives**

1. To measure the severity of stress among the workers by using PTSD scale.
2. Assessment of awareness of ambulance workers towards their service.
3. To identify if an association exists between PTSD symptom levels with the work experience.

### ❖ **Research question**

What is the severity of the PTSD symptoms in the drivers and EMTs of 108 ambulances?

### ❖ **Methodology**

- Study design- cross sectional study
- Study method- qualitative and quantitative
- Sampling method- Convenience sampling
- Samples- Pilots and EMTs of 108 ambulance

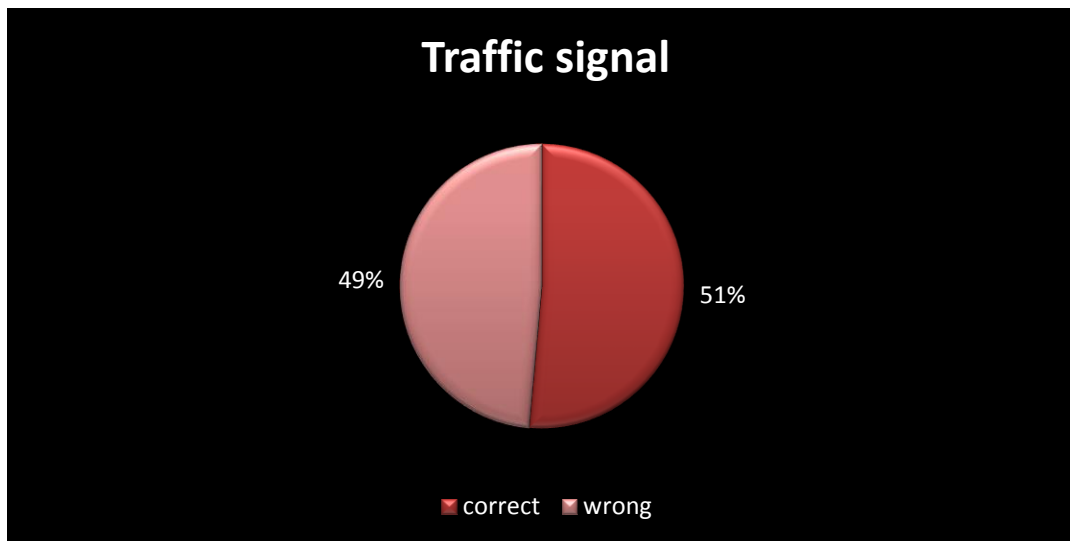


- Data collection from 108 base locations of Jaipur, Dausa, Tonk, Ajmer.
- Sample size- 70
- Data collection method- questionnaire tool including the PTSD stress severity scale. The PTSD scale is adapted, modified and converted to Hindi from Davidson trauma scale.
- Reliability of the symptom scale was tested in SPSS and is 0.9, hence making the test reliable.
- Data analysis
  - MS Excel was used
  - Chi squared test applied
  - 21 questions of PTSD scale were included. Each question was answered by respondents on a lickert scale and was scored as 0,1,2,3,4. The interpretations of the total score of the respondents were as follows-
    - 0-27 – low level stress symptoms
    - 28-40 – borderline stress
    - 41-68 – high level stress symptoms
- Study duration- 2 months
- Duration of field visit- 15 days

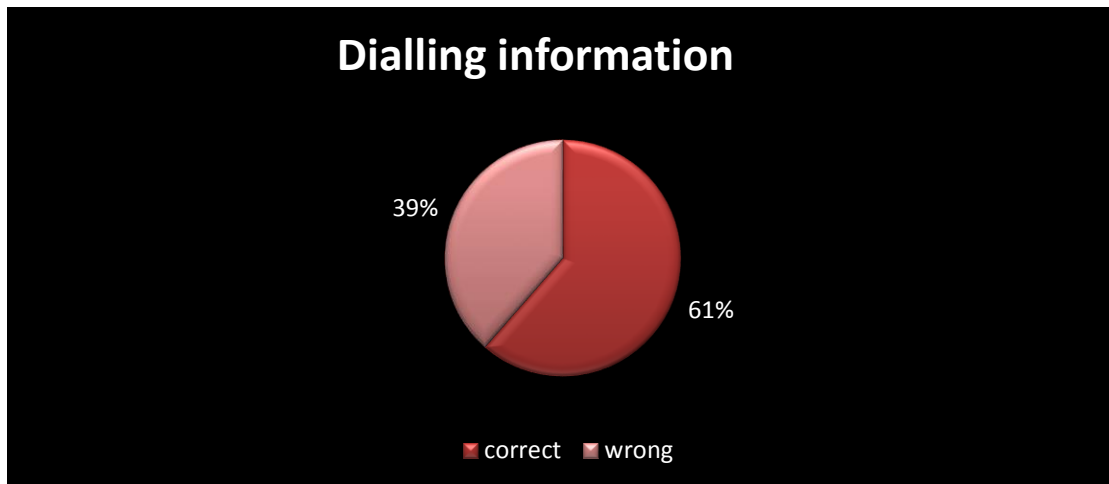
## ❖ Findings

### A. Knowledge of the ambulance staff regarding their work.

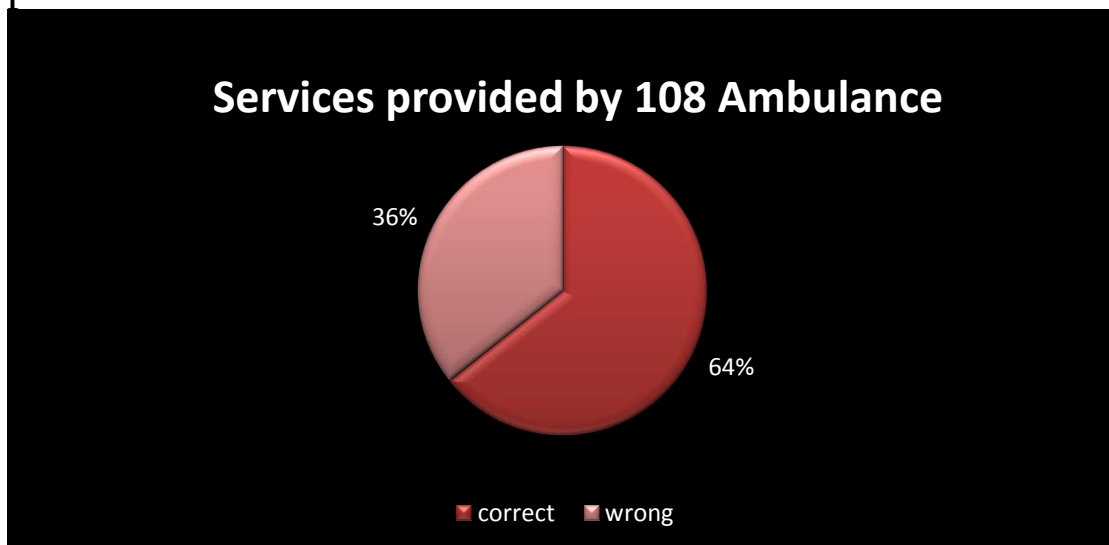
- The respondents were asked if they know, whether or not an ambulance can cross a red signal.
- 49% of the respondents answered it incorrectly.



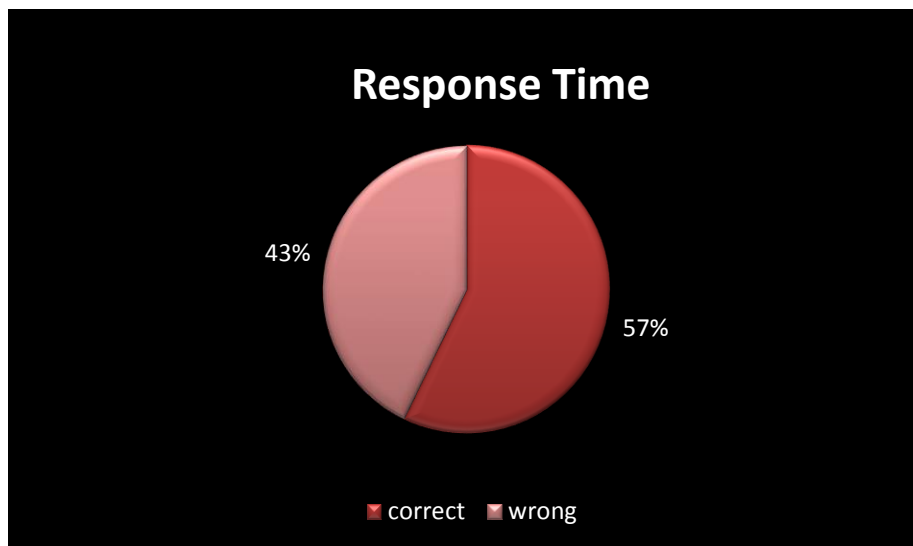
- Respondents were asked that which dialing number can be used to call the ambulance services.
- 39% answered incorrect by either saying 104 only or 108 only, whereas dialing either one for any service is entire concept of Integrated ambulance project.



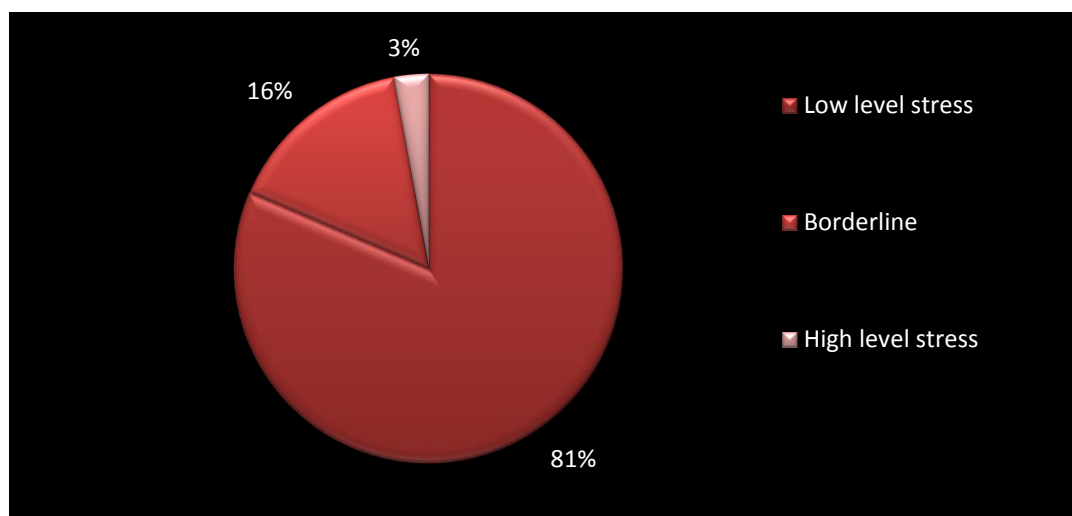
- In the questionnaire, the ambulance staff was asked what services that the ambulance provided, 39% of the employees did not know accurately what services 108 provided.



- There is a set standard response time for the ambulances, according to the geographic location. The employees were asked about the rural area response time, 43% answered wrongly.



## B. Symptom distribution among the respondents



### C.Relationship between work experience and stress symptoms

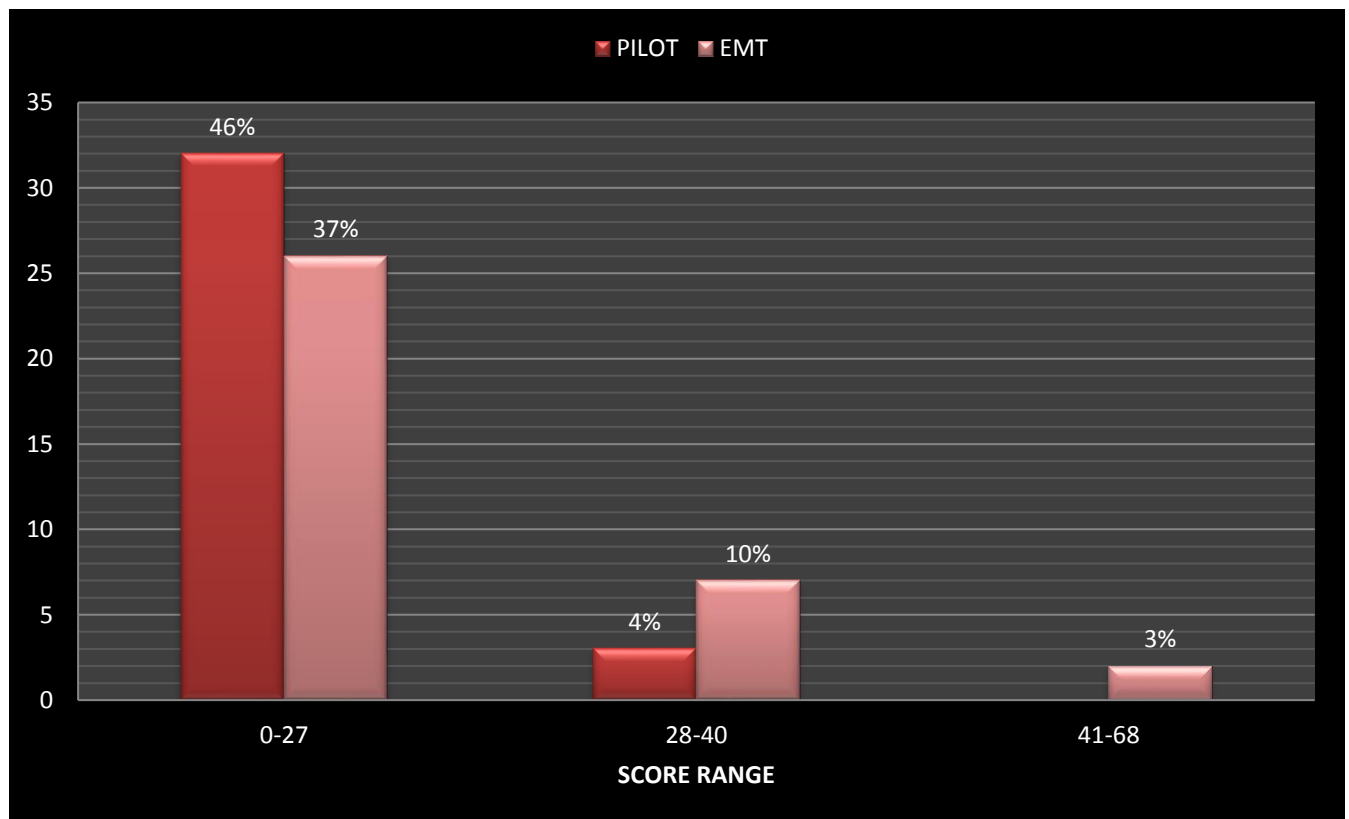
- To establish a relationship between the two variables that are work experience and
- Started with a null hypothesis which says that there is no relation between the work experience and stress symptoms.

|            | 0-4 yrs | 5-10 yrs |
|------------|---------|----------|
| Low        | 18      | 39       |
| Borderline | 8       | 3        |
| High       | 0       | 2        |

- Applied chi squared to the cross tabulation.
- **Chi squared = 13.892**
- Chi squared is exceeding the degree of freedom.
- Hence, the null hypothesis is rejected.
- Therefore, there is a relationship between the stress symptoms and work experience.

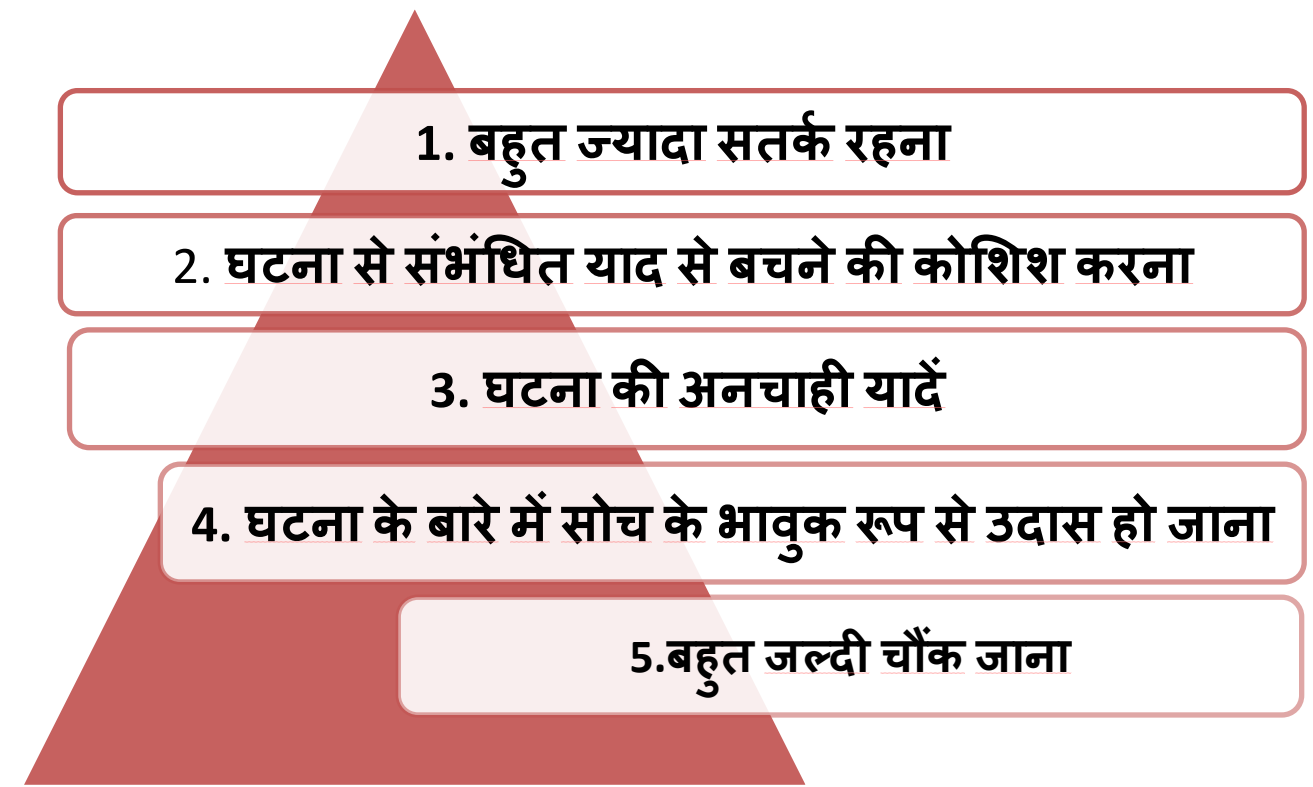
#### D. Difference between the stress symptoms of pilots and EMTs

- It was found that more of the EMTs are more affected than the pilots.
- More of the EMTs are affected by the partial and full PTSD symptoms.
- The reason behind EMTs showing more symptoms could be that EMTs deal with the case and see the trauma more closely than the pilots.



#### E. Top 5 symptoms of the respondents.

- The symptoms in the PTSD symptom scale of the questionnaire were analysed.
- The symptoms that were scored the highest in the likert scale with “always” or “4” were analysed and listed.



### ❖ Recommendations

- Employee encouragement programmes.
- Employee entertainment programmes.
- Activities that make the employees feel more involved in the organization.
- Counselling facilities for the staff.

- Employees with high level PTSD or the ones that are at risk could be shifted to 104 for sometime.

## PROJECT-II

# TREND ANALYSIS OF MAJOR CHIEF COMPLAINTS



### ❖ Introduction

- A **trend analysis** is an aspect of technical **analysis** that tries to predict the future movement of a stock based on past data. **Trend analysis** is based on the idea that what has happened in the past gives traders an idea of what will happen in the future.

### ❖ Research Objectives

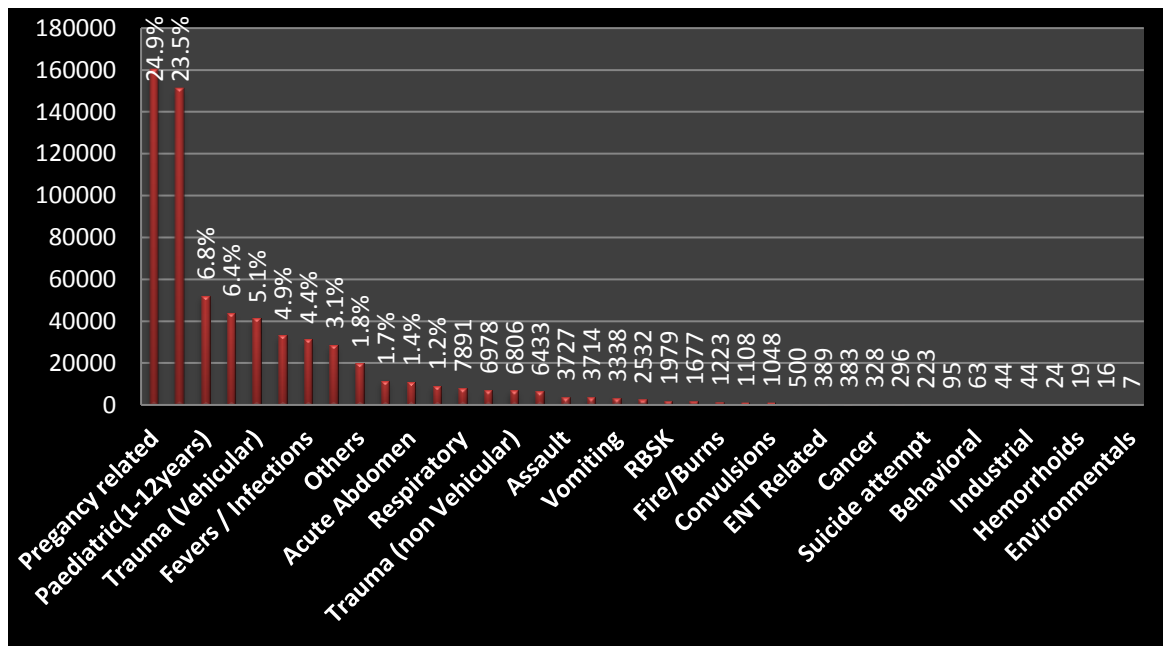
1. Analysis of major chief complaints.
2. Analyzing district wise trends.
3. Time wise trends based on past 6 months data.

### ❖ Methodology

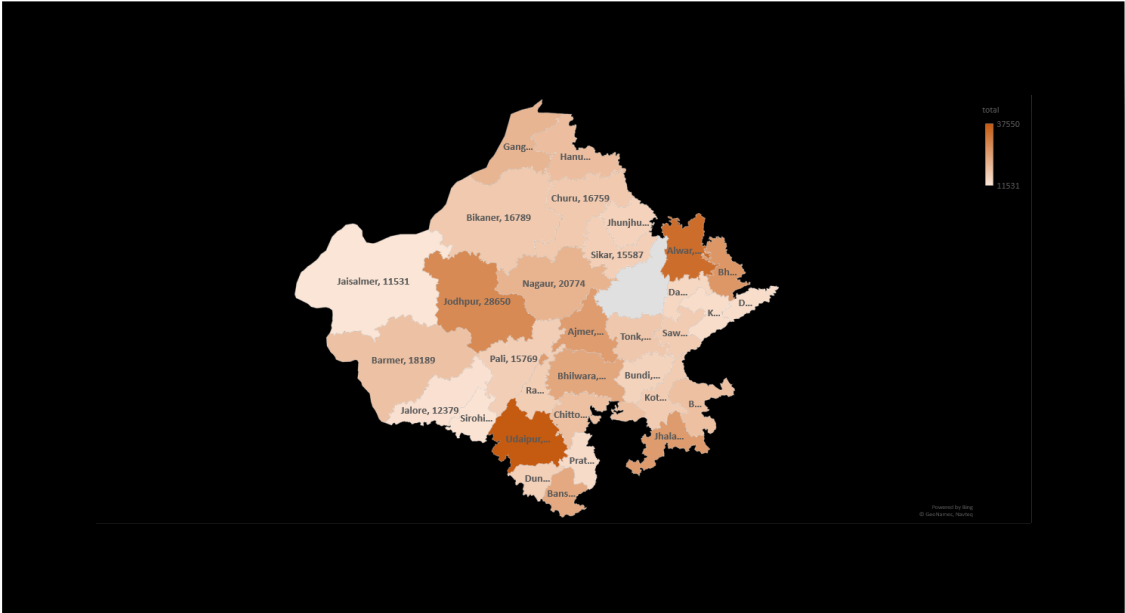
- Study design- Trend analysis
- Data- collected from the control room of IAP call centre.
- Samples- The number of cases done by 108/104 ambulances during 6 months (October 2017- March 2018) used to make interpretations.

## ❖ Findings

### A. Major chief complaints



### B. District wise trends

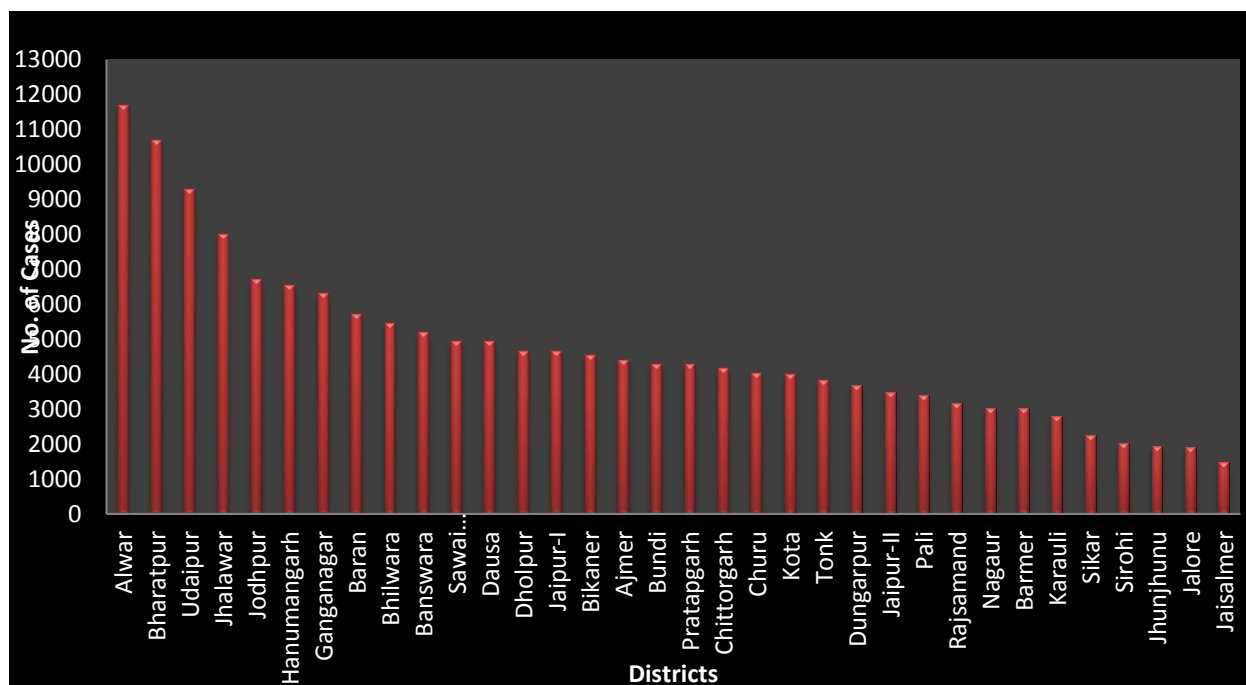


- The map shows the districts of Rajasthan in different color intensities.
- The deeper the intensity of the color, the higher the number of cases.
- Udaipur, Alwar and Jodhpur are the districts with the highest number of cases for which ambulances are used.

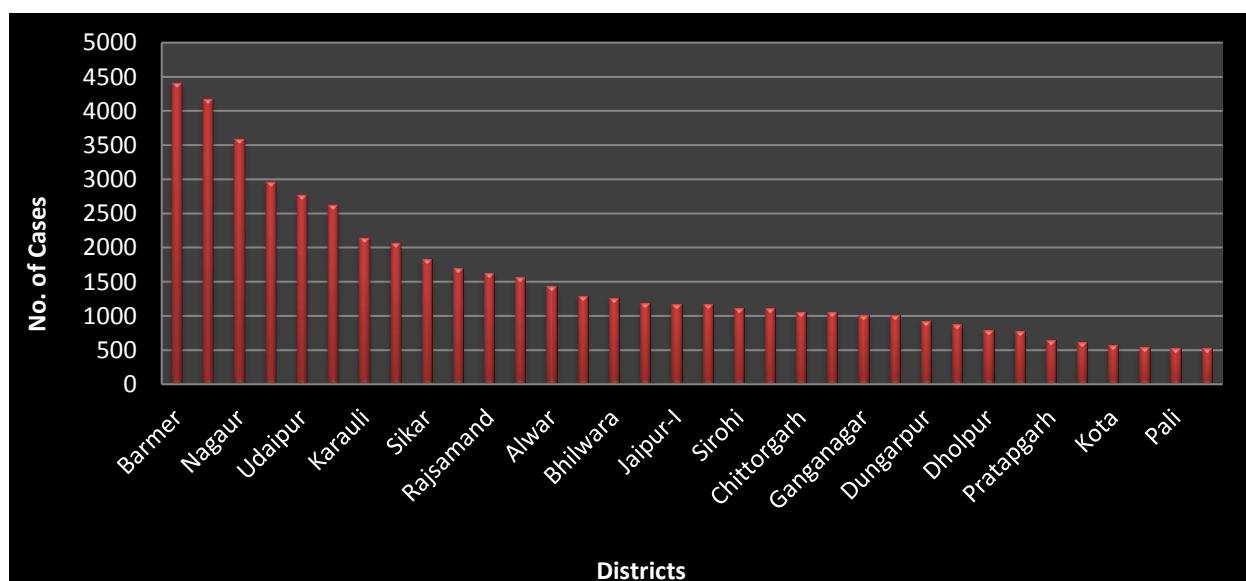
| <b>DISTRICTS</b> | <b>CASES</b> |
|------------------|--------------|
| 1.Udaipur        | 37550        |
| 2.Alwar          | 33987        |
| 3.Jodhpur        | 28650        |
| 4.Bharatpur      | 26204        |
| 5.Jhalawar       | 25397        |
| 6.Ajmer          | 25152        |
| 7.Jaipur-I       | 24123        |
| 8.Bhilwara       | 23212        |
| 9.Banswara       | 22810        |
| 10.Nagaur        | 20774        |
| 11.Ganganagar    | 20515        |
| 12.Hanumangarh   | 18753        |
| 13.Chittorgarh   | 18520        |
| 14.Baran         | 18471        |
| 15.Barmer        | 18189        |

## C.TIME BAESD TRENDS ON PAST 6 MONTHS DATA

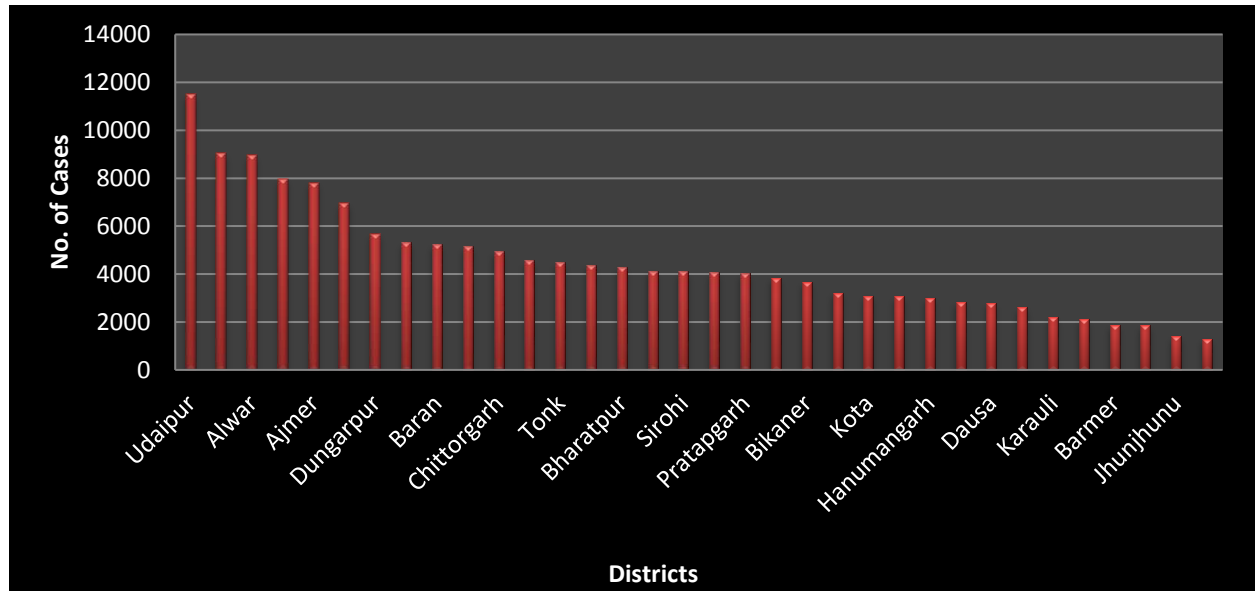
- Pregnancy related



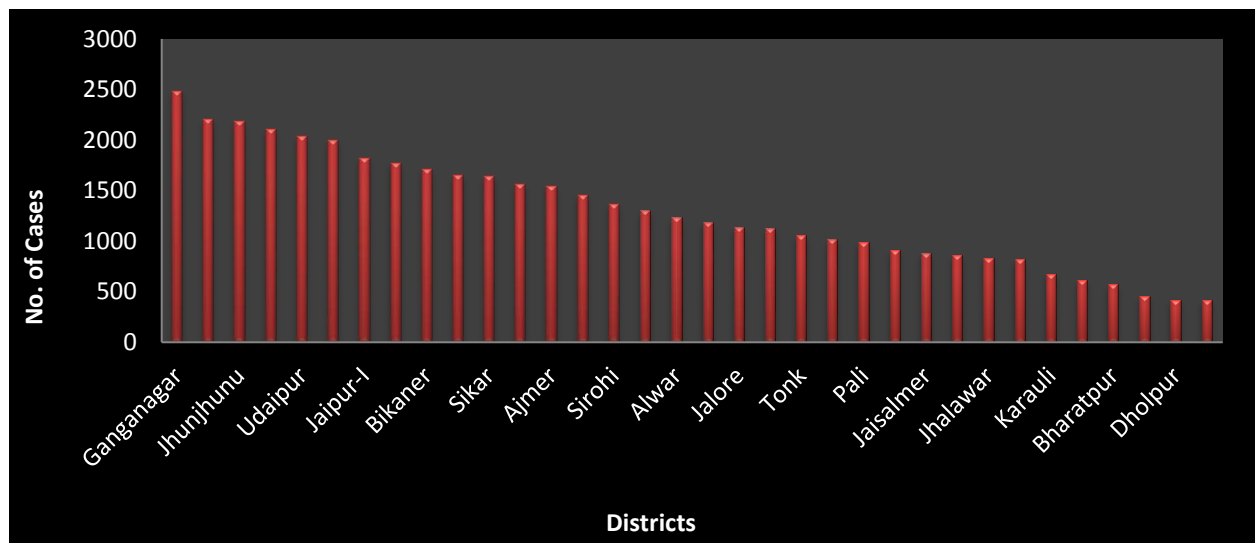
- Pediatric cases



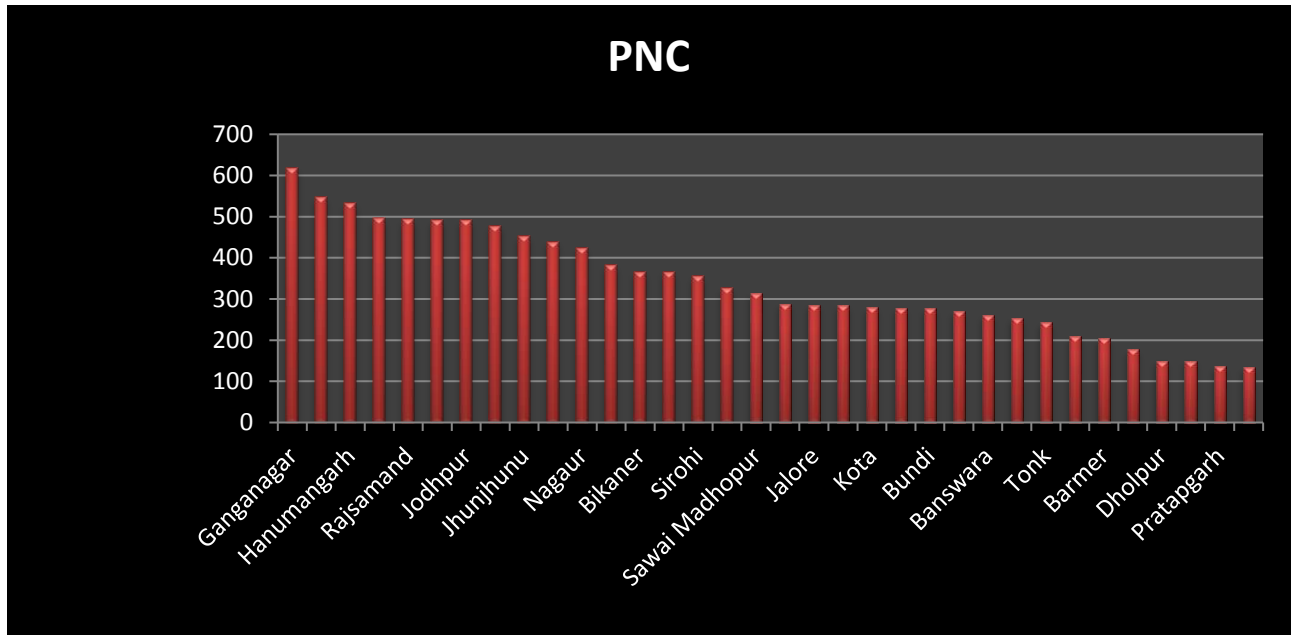
- Post delivery cases



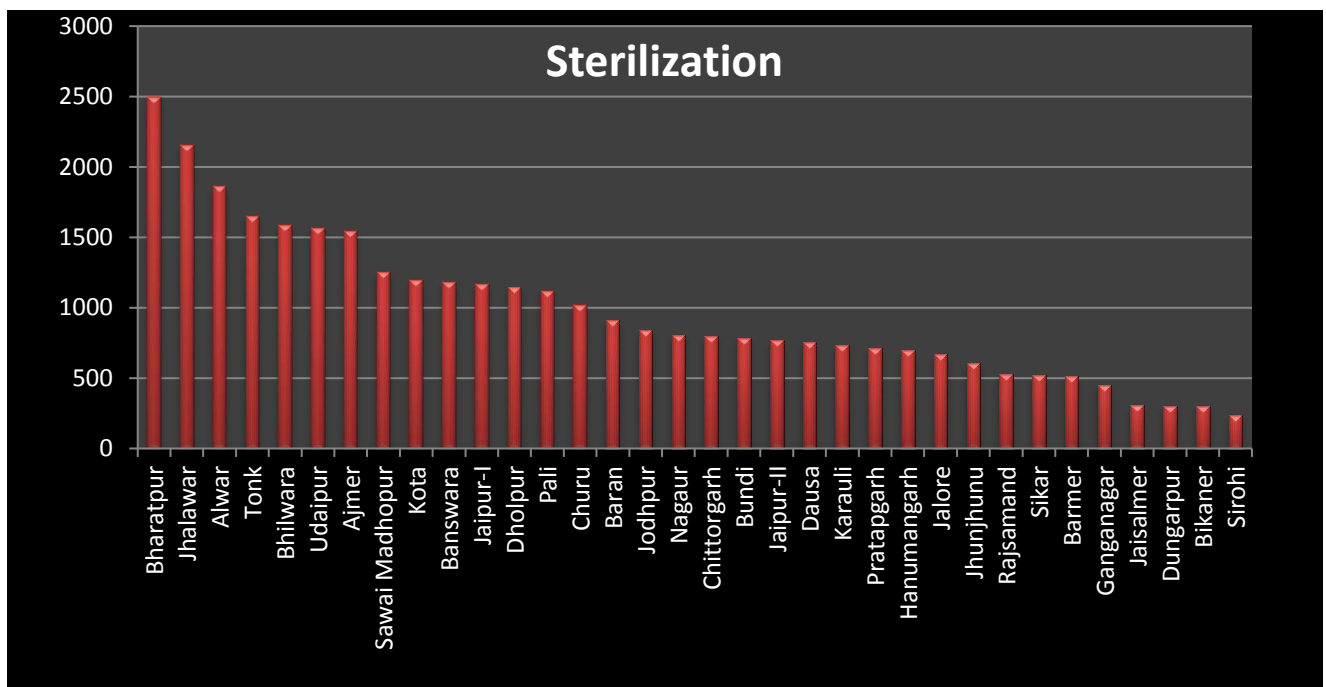
- ANC



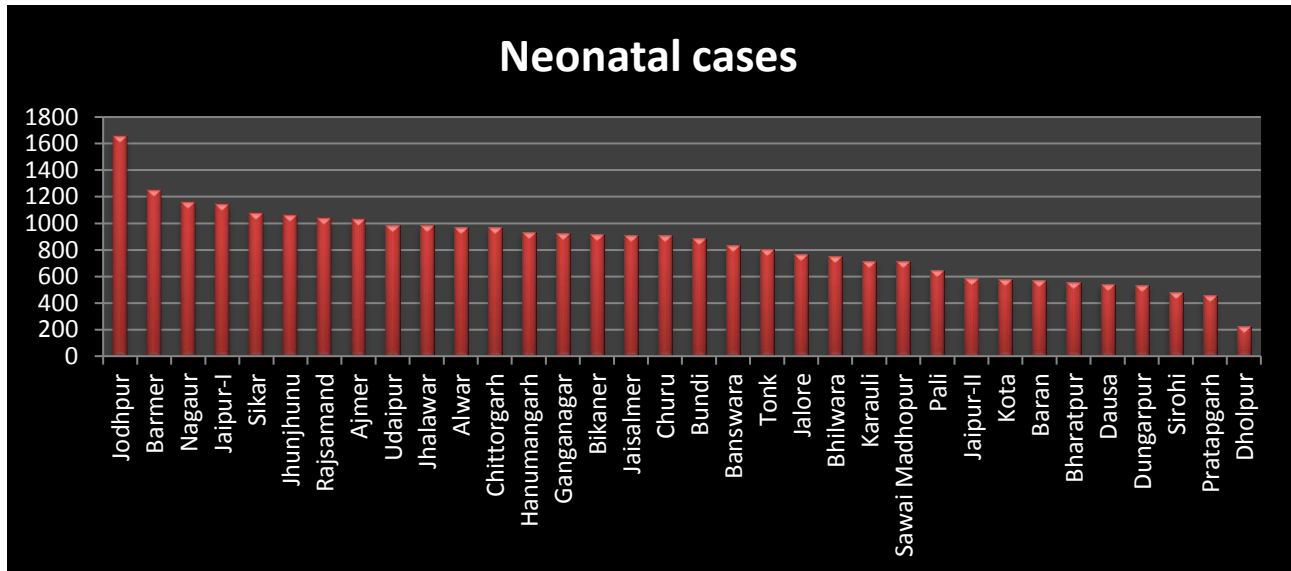
- PNC



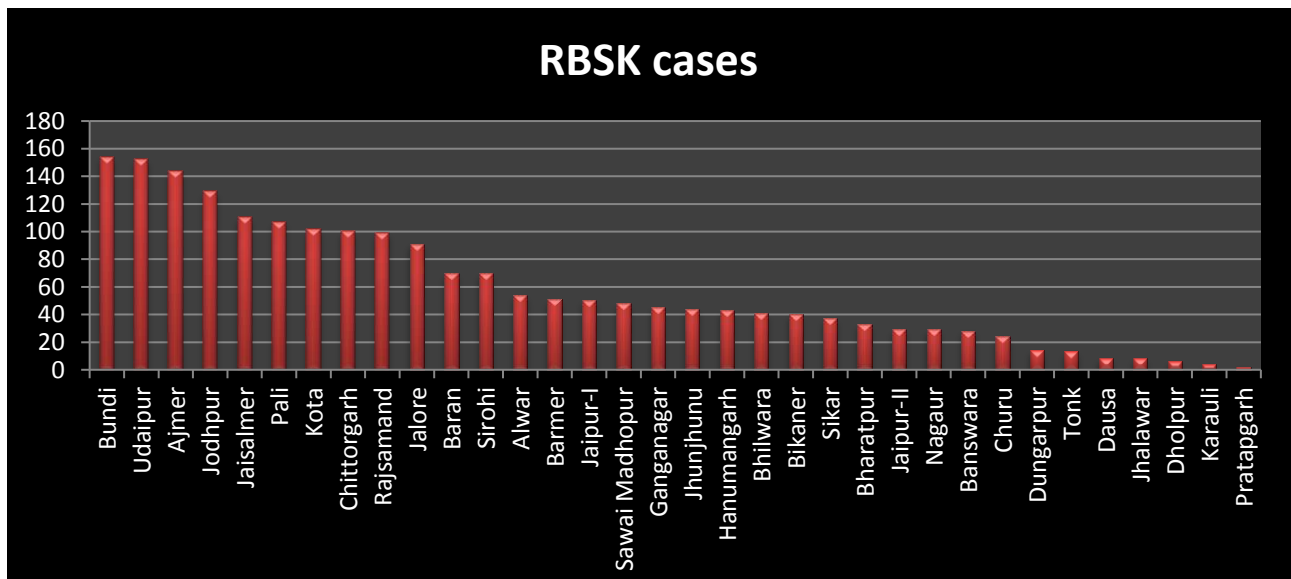
- Sterilization cases



- Neonatal emergencies

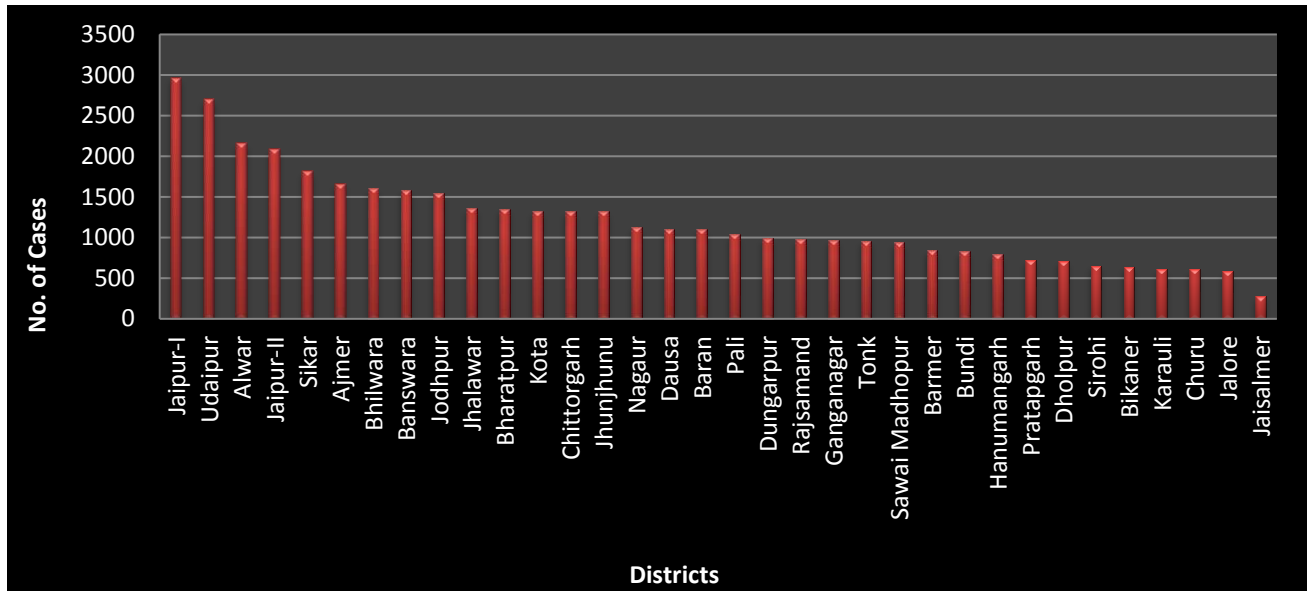


- RBSK referred cases

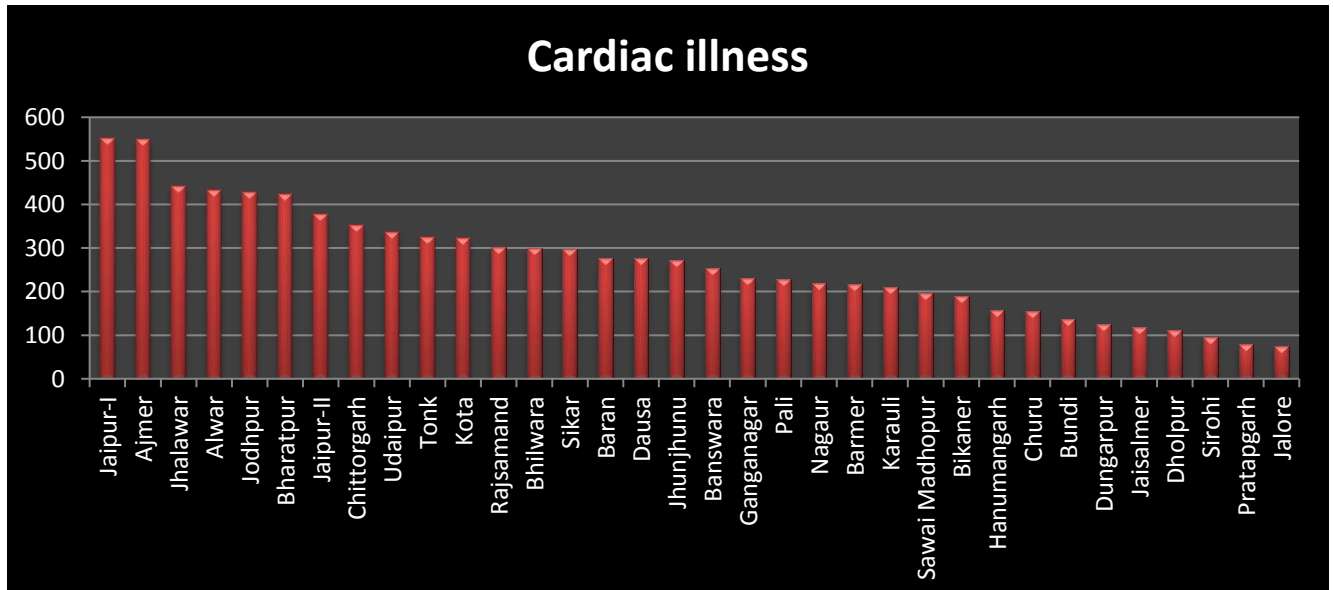




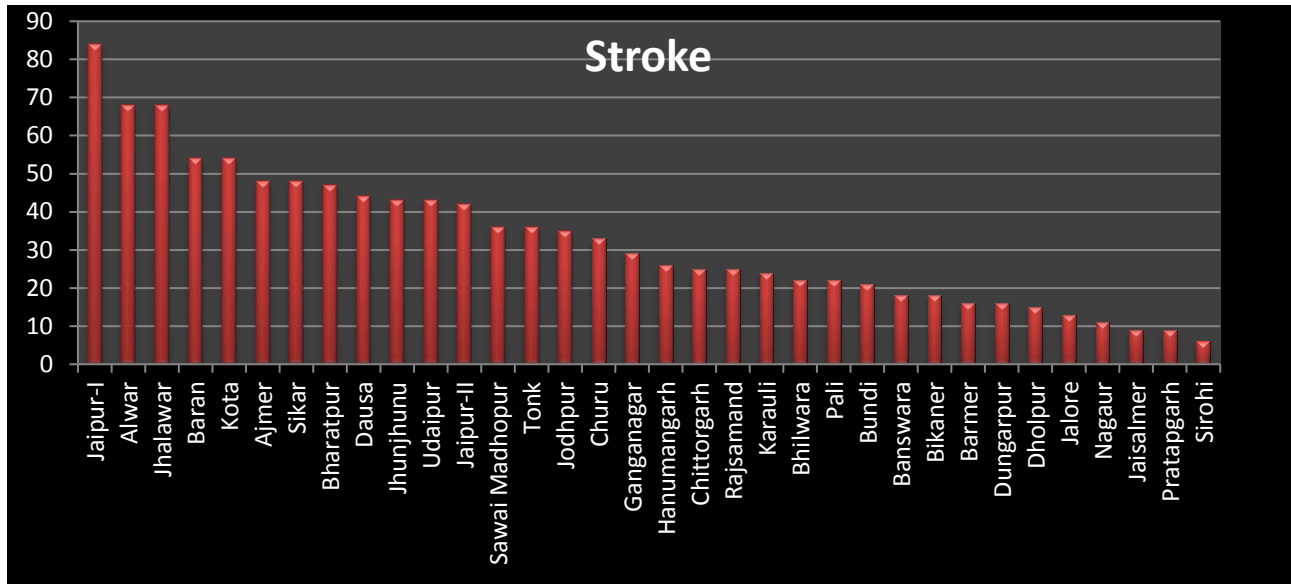
- Vehicular trauma



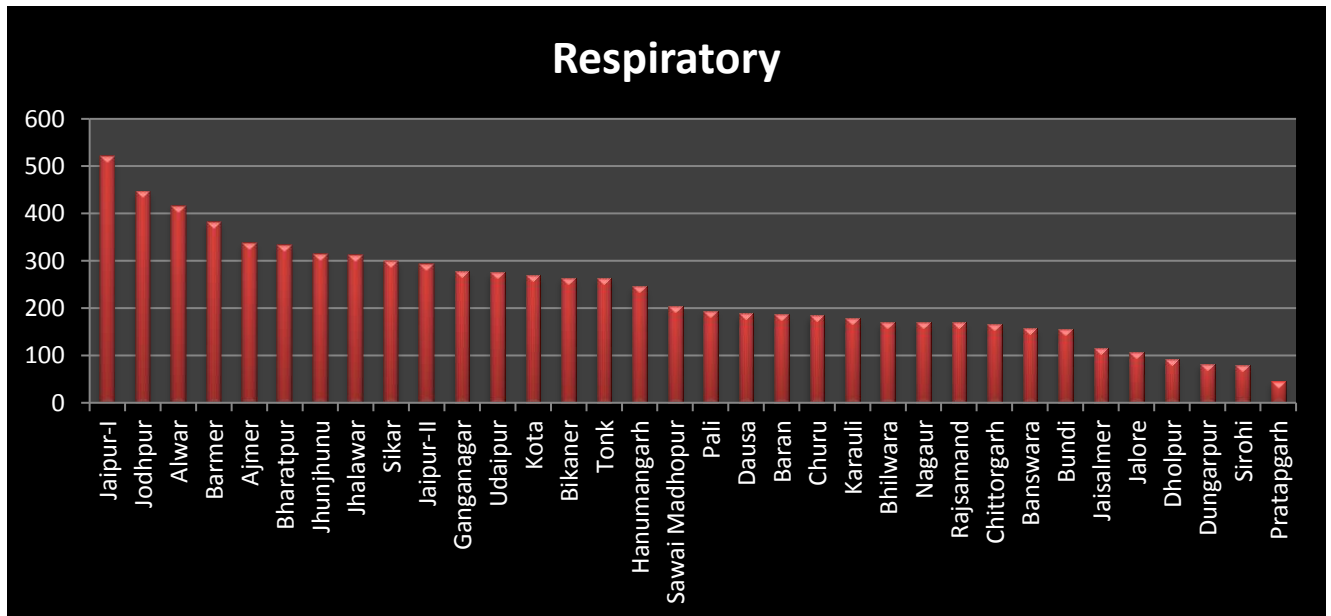
- Cardiac illness



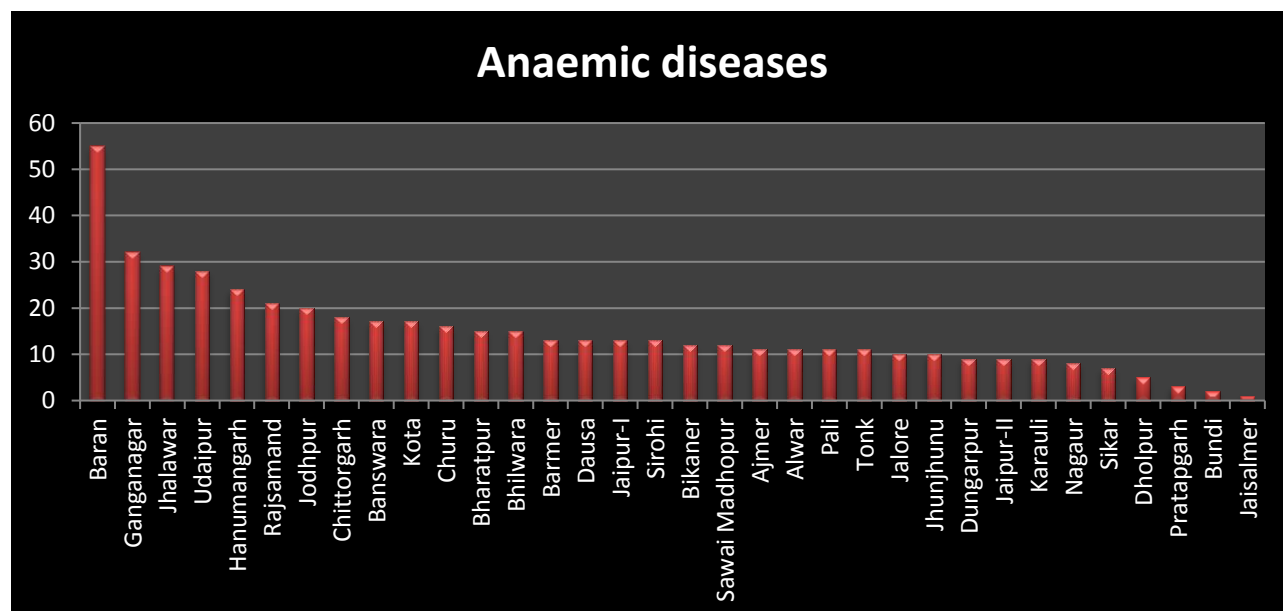
- Stroke



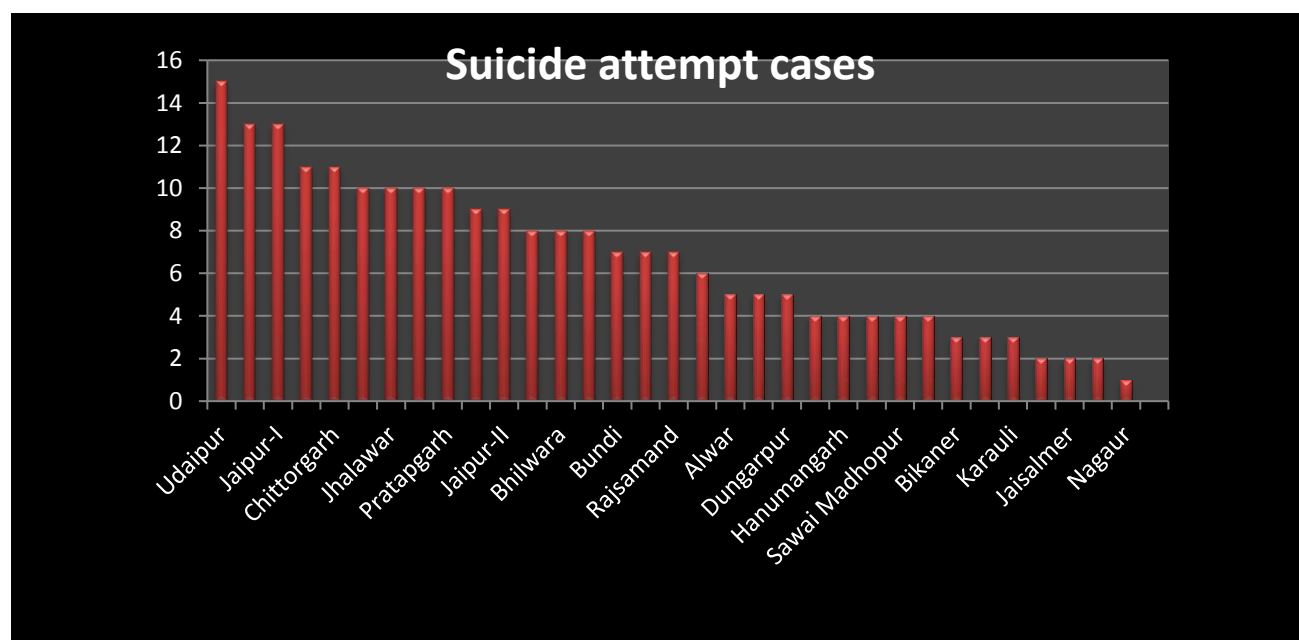
- Respiratory diseases



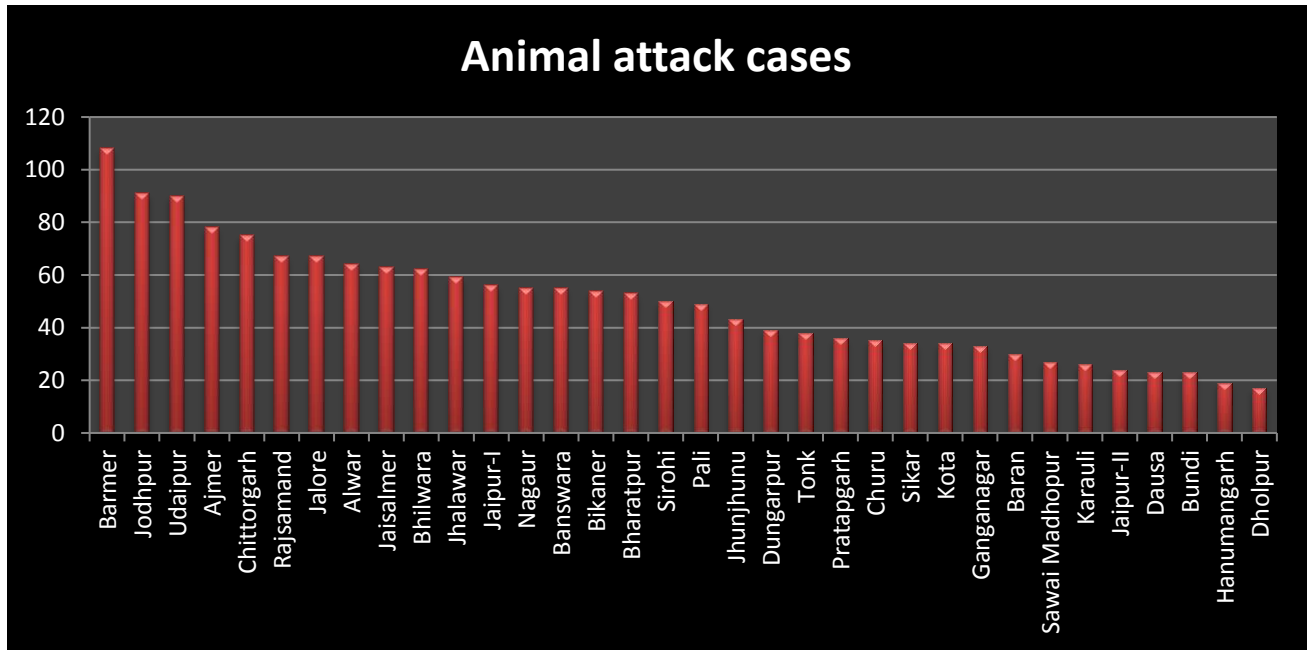
- Anemia cases



## Suicide attempt cases



- Animal attack cases



## REFERENCES

- <http://nhm.gov.in/nhm/about-nhm.html>
- <http://www.rajswasthya.nic.in/>
- <https://emergencypublichealth.net/2014/07/14/ptsd/>
- <https://www.nimh.nih.gov/index.shtml>
- RFP - IAP
- Davidson trauma scale
- PTSD diagnostic scale DSM 5

## ANNEXURE

दिनांक\_\_\_\_\_

लोकेशन\_\_\_\_\_

पद\_\_\_\_\_

आईडी \_\_\_\_\_

नाम\_\_\_\_\_

1. आपने जीवीके ईएमआरआई किस साल में ज्वाइन की ?

क. 2008-10

ख. 2011-13

ग. 2014-16

घ. 2017-18

2. जीवीके ईएमआरआई में आपका कार्य अनुभव कैसा है ?

क. संतोषजनक

ख. अत्याधिक संतुष्ट

ग. असंतोषप्रद

घ. कह नहीं सकते

3. आपातकालीन स्थिति में लोगों की जान बचाकर कैसा महसूस होता है ?

क. गौरवान्वित

ख. कोई अहसास नहीं

ग. बेचैनी

घ. कह नहीं सकते

4. क्या आपने कभी एम्बुलेंस चलाते हुए मोबाइल पर बात की है ?

क. कभी कभी

ख. हमेशा

ग. ज़रूरत पड़ने पर

घ. कभी नहीं

5. 108 एम्बुलेंस इनमें से कौनसी सेवाएं प्रदान करती है ?

क. अस्पताल से पूर्व की देखभाल

ख. हॉस्पिटल केयर

ग. बेसिक लाइफ सपोर्ट

घ. क और ग दोनों

6. 108 एम्बुलेंस का रिस्पांस टाइम ग्रामीण क्षेत्रों में कितना है ?

क. 15 मिनट

ख. 20 मिनट

ग. 30 मिनट

घ. 40 मिनट

7. क्या एम्बुलेंस ड्राइवर ट्रैफिक के लाल सिगनल को पार कर सकते हैं ?

क. हाँ

ख. नहीं

ग. हाँ यदि ट्रैफिक पुलिस सिगनल पर मौजूद है और ट्रैफिक का संचालन करते हुए एम्बुलेंस को निकलने का सुरक्षित रास्ता देती है

घ. इनमें से कोई नहीं

8. 108 एम्बुलेंस की सेवाएं लेने का शुल्क क्या है ?

क. 50 रुपए

ख. 100 रुपए

ग. 400 रुपए

घ. निशुल्क

9. 108 एम्बुलेंस कैसे बुलाई जा सकती है ?

क. 108 डायल करने से

ख. 104 डायल करने से

ग. क और ख

घ. इनमें से कोई नहीं



10. आपने अपने कार्यकाल में निम्न में से कौनसी घटनाओं का अनुभव किया है ? (एक से ज्यादा घटनाओं पर चिन्ह लगा सकते हैं)

- ☐ जान लेवा बीमारियां (दिल का दौरा, सांप का काटना)
  - ☐ मार पीट, हमले की घटना
  - ☐ शारीरिक शोषण (रेप की घटनाएं)
  - ☐ बाल शोषण की घटनाएं
  - ☐ एक्सीडेंट (गंभीर चोट या मृत्यु)
  - ☐ प्राकृतिक आपदा
  - ☐ अन्य
- 
- 

11. यदि आपने ऊपर दिए गए विकल्पों में से किसी विकल्प पर चिह्न लगाया है , तो इनमे से कौनसी घटना आपको परेशान करती है ?

- ☐ जान लेवा बीमारियां (दिल का दौरा, सांप का काटना)
- ☐ मार पीट, हमले की घटना
- ☐ शारीरिक शोषण (रेप की घटनाएं)

- ☐ बाल शोषण की घटनाएं
  - ☐ एक्सीडेंट (गंभीर चोट या मृत्यु)
  - ☐ प्राकृतिक आपदा
  - ☐ अन्य
- 
- 

नीचे उन परेशानियों की सूची दी गयी है जो इस क्षेत्र में कार्य करने वाले लोग अक्सर अनुभव करते हैं . ऊपर की सूची में से आपकी चिन्हित की हुई सबसे विचलित करने वाले अनुभव का नाम लिखें.

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कृपया प्रत्येक कथन को ध्यान पूर्वक पढ़ें, और उन विकल्पों को चिन्हित करें जो आपकी परिस्थिति से मेल खाते हैं उन घटनाओं के सम्बन्ध में जो पिछले छह महीनों में आपने अनुभव की और आपको विचलित करती है तथा जो आपको सबसे ज्यादा परेशान करते हैं

|    | परेशानी                                                                  | कभी<br>नहीं | शायद<br>ही<br>कभी | कभी<br>कबार | ज्यादातर | हमेशा |
|----|--------------------------------------------------------------------------|-------------|-------------------|-------------|----------|-------|
| 1. | घटना की अनचाही यादें                                                     |             |                   |             |          |       |
| 2. | घटना से सम्बंधित बुरे सपने                                               |             |                   |             |          |       |
| 3. | ऐसा महसूस होना जैसे वो घटना दोबारा हो रही हो                             |             |                   |             |          |       |
| 4. | घटना के बारे में सोच के भावुक रूप से उदास हो जाना                        |             |                   |             |          |       |
| 5. | घटना के बारे में सोचने पर शारीरिक प्रतिक्रिया होना (घबराना, पसीने छूटना) |             |                   |             |          |       |
| 6. | घटना से संबंधित याद से बचने की कोशिश करना                                |             |                   |             |          |       |

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|-----|---------------------------------------------------------------------------------|--|--|--|--|--|
| 7.  | उन परिस्थितियों से या जगहों से बचने की कोशिश करना जो आपको उस घटना की याद दिलाये |  |  |  |  |  |
| 8.  | घटना से सम्बंधित ज़रूरी बातों को याद न कर पाना                                  |  |  |  |  |  |
| 9.  | खुद को या दूसरों को नकारात्मक तरीके से देखना                                    |  |  |  |  |  |
| 10. | प्रबल नकारात्मक भावनाएं होना                                                    |  |  |  |  |  |
| 11. | दिन प्रतिदिन की गतिविधियों में मन ना लगना                                       |  |  |  |  |  |

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|-----|----------------------------------------|--|--|--|--|--|
| 12. | दूसरों से अलग थलग महसूस होना           |  |  |  |  |  |
| 13. | सकारात्मक महसूस करने में दिक्कतें होना |  |  |  |  |  |

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|-----|--------------------------------------------------------------------------|--|--|--|--|--|
| 14. | चिड़चिड़ा महसूस होना                                                     |  |  |  |  |  |
| 15. | ऐसे काम करना जो खुद को या दूसरो को खतरे में डाल सकते हैं                 |  |  |  |  |  |
| 16. | बहुत ज्यादा सतर्क रहना                                                   |  |  |  |  |  |
| 17. | बहुत जल्दी चौंक जाना                                                     |  |  |  |  |  |
| 18. | किसी काम में एकाग्र ना हो पाना                                           |  |  |  |  |  |
| 19. | नींद आने में या सोने में तकलीफ                                           |  |  |  |  |  |
| 20. | ये परेशानियां आपको कितना विचलित करती हैं                                 |  |  |  |  |  |
| 21. | ये परेशानियां आपकी दिन प्रतिदिन की गतिविधियों को कितना प्रभावित करती हैं |  |  |  |  |  |