INOVATION
INTEGRATED EMERGENCY SERVICE SYSTEM – PRE HOSPITAL
“PSC”
(Public Safety Centre)
dr. Iskak General Hospital of Tulungagung
Indonesia
1. Geographical Location:
   111°43’ – 112°07’ East Longitude
   7° 51’ – 8°181 South Latitude
2. Large: 113.167 Ha
   (2.2% of the East Java’s area)
3. Based on administration,
   consist of:
   19 sub-districts, 257 villages,
   14 villages offices

WEST SIDE
KAB. TRENGGALEK

directly adjacent to the
RING OF FIRE

SOUTH SIDE
INDONESIAN OCEAN

NORTH SIDE
KAB. KEDIRI

EAST SIDE
KAB. BLITAR

ring of fire
1. Geographically Tulungagung regency is very varied; mountains, swamps and land
2. People had difficulty in obtaining ambulance services for patient pickup.
3. High number of traffic accidents in Tulungagung regency (2014th) 561 accidents. 170 people died, 10 people seriously injured, 722 minor injured. And IDR 290.600.000 lossed.
4. High number of Dead On Road (DOR) and Dead On Arrival (DOA) because by delays and errors in pre-hospital first aid.
5. High number of heart attack morbidity 90 %
6. High number of heart attack mortality 80 %
7. There is no integrated emergency calls in Tulungagung Regency
THE CONCEPT OF PUBLIC SAFETY CENTRE
ALL EMERGENCY EVENTS IN COMMUNITY

IF THERE ARE VICTIMS

ALL WILL BE THE END AT THE HOSPITAL
I. CHANGE THE CONCEPT of Dr. ISKAK GENERAL HOSPITAL MANAGEMENT
“HOSPITAL WITHOUT WALL”

New Concept Hospital Management:
Character:
1. Low Cost
2. High Quality
3. Social Responsibility
COMBINATION OF PSC and NEW CONCEPT HOSPITAL MANAGEMENT
II. PUBLIC SAFETY CENTRE. Build the Information Technology Systems to breaking through the Hospital Walls in order to speed up monitoring health community And Help Public Services Delivery
STRATEGY APPROACH

Creating the Tulungagung Emergency Medical Services “PSC”

Call Center 119/0355-320119
Tulungagung’s **Public Safety Centre** services improvement that focuses on:

1. Service Access
2. Response Time of Service
3. Safety
In 2014

- Compiled the emergency system based on comparative study results and modified according to local content in Tulungagung Regency
- Prepared human resources by sending the call takers and dispatchers to training
- Prepared medic and paramedic to become Pre-hospital service agents
- Prepared Tulungagung Primary Health Care as a working network
- Integrated hospital and pre-hospital services by software system (Tulungagung Emergency Medical Services / TEMS)
- Integrated Tulungagung Emergency Medical Services with the other department (Police, Tulungagung Regional Disaster Management Agency, Firefighter Department) — PSC
In 2014

- Realization of pre-hospital services with Tulungagung EMS, which is equipped with software and hardware at the call center and ambulance equipped with android, radio communication and GPS.
- Integrated TEMS with Medical Facilities as Pre-Hospital Care (PHC) Team.
- Inauguration TEMS/PSC by the Indonesian Minister of Health.
TULUNGAGUNG REGENCY
SAFE, CONVENIENT AND PROSPEROUS
FLOW SERVICE
TULUNGAGUNG EMERGENCY MEDICAL SERVICES / PSC
DISPATCH
**Financial Resources**

- In 2014, Regional Budget and Expenditure Revenue of Tulungagung Regency worth 1.5 billion IDR for call center training and procurement of type A ambulances for pre-hospital care
- In 2015 budget of Tulungagung Regency, worth 1.5 billion IDR, used for procurement of hardware at the call center room and in the pre-hospital care TEMS’s ambulance
- In 2015, Dr. Iskak Tulungagung General Hospital budgeting 500 million IDR used to developed Tulungagung Emergency Medical Services software
- 5 billion IDR / year, Corporate Social Responsibility of Tulungagung Dr. Iskak General Hospital

The additional information, we used to ambulance units in the Tulungagung Distric Primary Health Care and dr. Iskak General Hospital
RESOURCES USED

**Human Resources**

- Emergency Specialist Doctor, as a leader
- Trained General Practitioner
- Trained nurses
- A trained ambulance driver
- Health Office and Medical Facilities as a network
1. Single number of Emergency services via 119 and Emergency Button based on android

2. Pre-hospital services with TEMS are able to bring medical emergency services closer to the community

3. TEMS ambulances, especially for emergency, are equipped with emergency equipment and a professional Pre Hospital Care team that provides services at the scene and during to the hospital.

4. Call center system consists of information technology software that is equipped with supporting hardware

5. Call Center Room
OUT COME

• People can access medical emergency calls by single number telephone 119, or just press the emergency button when they are in the emergency condition.

• People get emergency services quickly, precisely, safely and professionally since scene location of the incident, during the trip to hospital and after arrived to the hospital immediately.

• People get telemedicine services by using call center facilities.

• Representative emergency ambulance.

• Emergency education and training for lay people.

• Decreased mortality and morbidity.

• Safety and security guarantee (safe community)
<table>
<thead>
<tr>
<th>No</th>
<th>Description</th>
<th>Before Innovation (Before 2014)</th>
<th>After Innovation (since 2015)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Dead On Arrival (DOA) Rate Due to Accidents</td>
<td>12</td>
<td>6</td>
</tr>
<tr>
<td>2</td>
<td>Morbidity Rate due to Heart Disease</td>
<td>676</td>
<td>271</td>
</tr>
<tr>
<td>3</td>
<td>Mortality Rate due to Heart Disease</td>
<td>68</td>
<td>32</td>
</tr>
<tr>
<td>4</td>
<td>Call Center Services</td>
<td>Not available</td>
<td>Available</td>
</tr>
<tr>
<td>5</td>
<td>Pre-Hospital Services</td>
<td>Not available</td>
<td>Available</td>
</tr>
<tr>
<td>6</td>
<td>Response Time of the PHC (go to the location)</td>
<td>-</td>
<td>5 – 15 menit</td>
</tr>
<tr>
<td>7</td>
<td>Handling of the PHC Team</td>
<td>-</td>
<td>968 cases</td>
</tr>
<tr>
<td>8</td>
<td>Complaints about ambulance pre hospital services</td>
<td>35</td>
<td>5</td>
</tr>
</tbody>
</table>
Impact of Innovation

1. Decreasing Dead On Arrival (DOA) Due to Accidents from 12 to 6
2. Decreasing Morbidity Rate due to heart disease from 90% to 60%
3. Decreasing mortality due to heart disease from 80% to 50%
4. Decreasing complaints about prehospital ambulance services from 35 to 5
Sustainability

To Ensure Sustainability Innovations:

1. Tulungagung Regional Regulation No. 6 of 2018 About Public Services
2. Regent Regulations 2016 th No. 30 Changed of Regent Regulations 2015 th No. 29 about Integrated Emergency Management System in Tulungagung Regency
3. Pre-hospital Care Development
4. Integrated Tulungagung Emergency Medical Services (TEMS) with intersectoral → Public Safety Centre (PSC) → Acute Coronary Syndrome (ACS)
5. Financial Support for Operational and Development.
Tulungagung for Indonesia

Tulungagung Emergency Medical Services (TEMS) / PSC services has been used as place for comparative studies the other districts / cities in Indonesia. Several times, Indonesian health minister office invited me as a speaker about Emergency System.

Some provinces such as East of Java, Central of Java, Riau Islands province, NTB province and the other province in Indonesia invited me as a speaker.

There are some districts / cities that already replicate this program.
Thank You

Contact us

dr. Iskak General Hospital of Tulungagung
rsu_iskak_ta@yahoo.com/ bprabowo28@gmail.com
+82355 – 322609 / +628123569223
www.rsudtulungagung.com