Innovative Pro-Poor Service Delivery Model to Improve Quality and Access to Health Care Services across India
GVK Emergency Management and Research Institute

A Non-profit organization

Integrated Emergency Response Service
addressing the challenge of poor access
to emergency support
Launched on 15th Aug, ‘05 in Hyderabad and expanded to 9 other States

Plans to reach national coverage serving more than 1 billion people in two years
Successfully Implemented by GVK EMRI in PPP Framework

- 100% of Capital expenditure and Operational expenses by Government (Public)
- GVK EMRI provides and funds Leadership, Innovation (Infrastructure, Process), Collaborations, Research and Training, Knowledge transfer and Quality assurance
- Mahindra Satyam provides IT solutions as technology partner
- GVK EMRI manages and leverages government resources for better outcomes to serve poor
• 75,000 emergencies occur per day (30 M p.a.)
  • 80% are at the bottom of the pyramid
  • 80% deaths occur in hospitals in the first hour

• 4 M deaths p.a. (Cardiac, Road Accidents, Maternal, Suicidal attempts, Neonatal / Infant / Pediatric, Diabetic related, etc) due to absence of 4As:
  – **Access** to a universal toll-free number
  – **Availability** of Life Saving Ambulance to reach quickly nearest and appropriate health facility
  – **Affectionate** Care by trained paramedics (Compassion, Ability, Resourcefulness & Energy)
  – **Affordability** by every citizen independent of income, religion and community (mostly user fee services)
Programme Vision

- To respond to 30 million emergencies and save 1 million lives annually using innovative delivery model of emergency response services (for Medical, Police and Fire emergencies) under PPP (Public Private Partnership) structure that provides emergency and pre-hospital care free of charge to the patient through a mix of government and private funding.

- To deliver services at global standards through Leadership, Innovation, Technology and Research & Training.
### Integrated Emergency Management Infrastructure of the Programme

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>Three digit toll-free number – Accessible from Land lines and mobile phones</td>
<td>108 EMERGENCY</td>
</tr>
<tr>
<td>Modern, spacious and open Emergency Response Centers</td>
<td>Call 108 Emergency</td>
</tr>
<tr>
<td>GIS / GPS to locate emergency victim / ambulance and information about health care facility locations and capacities</td>
<td>Modern, spacious and open Emergency Response Centers</td>
</tr>
<tr>
<td>Designed and developed cost effective ambulances to provide quality care for Indian emergencies with facilities for rescuing and balancing patient care with public safety and patients relatives comfort</td>
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<td>Trained personnel for providing pre-hospital care</td>
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Key Components of the Programme

Detailed process building

- Developed detailed process understanding and well defined responsibilities throughout the organization
- Maintained all information related to emergency in Patient Care Records (PCRs)
- Patient information is shared with the hospital on arrival
- 48 hour follow up with the patients admitted to hospital
Key Components of the Programme...

Innovative use of Technology

- **SCCS, CCT & Voice Logger**
- **Telephone DB ERS DB GIS DB**
- **Nortel Switch SCCS, CCT & Voice Logger**
- **Telephone DB ERS DB GIS DB**

**Public Switching Telephone Network (PSTN)**

**Caller in distress**

**Dial 108**

**Dispatcher Officers (DO)**

**Communication Officers (CO)**

**Transfer**

**Conference**

**Ambulance**

**EMT in Ambulance**

**Base Location**

**Victim Location (Scene)**

**Victim Shifted to Hospital**

**CCT**: Communication Control Toolkit; **SCCS**: Symposium Call Centre Server; **ERCP**: Emergency Response Center Physician; **EMT**: Emergency Medical Technician
Quality pre-hospital care

• Emergency Medical Technician (EMT) in the ambulance is trained not only to provide pre-hospital care but also to handle emergency situations

• EMT gets support over phone from qualified medical practitioner called ERCP (Emergency Response Centre Physician) located at the ERC

• ERCPs are in the ERC round the clock to provide support to EMT and to people at emergency scene until ambulance arrives
Collaboration for transfer of Knowledge and Technology know-how, Best practices, Research & Training

Stanford University, USA
Carnegie Mellon University, USA
Geomed Research
SingHealth Services
American Academy for Emergency Medicine in India
American Assoc of Physicians Of Indian Origin (AAPI)
Public Health Foundation of India
Shock Trauma Center, USA
### Impact

| Size | • One Center for 40 M population  
• 433 M population covered in 10 States (increased reach of health care in rural, hilly and tribal areas) – Rural area population: 277 M (64%); Tribal area population: 41 M (10%)  
• Trained 30,000 people (19,623 EMTs & Pilots and 9,290 Doctors and others)  
• 11,200+ emergencies handled per day (6.2 Million cumulative)  
• 2,710 Ambulances - 4.5 trips a day  
• 16,300+ GVK EMRI Associates |

| Speed | • Went live in less than 4 months from signing MoU  
• 91% calls taken in first ring  
• < 15 minutes (urban) and < 25 minutes (rural) Ambulances reached |

| Type of Emergencies and Lives saved | • Pregnancy related - 31%, Vehicular Trauma – 18%, Acute Abdomen – 12% Cardiac – 4%, Respiratory – 4%, Suicidal – 3%, Animal Bites 3%  
• 300+ lives were saved per day (199,000 + till now) and 10,900 victims per day received timely, high-quality pre-hospital care |

| Costs | • Cost per ambulance trip $12 to $15 USA |

| Qualitative Outcomes | • A historic landmark in health care delivery system  
• Built more trust in the health system as a whole  
• Increased institutional deliveries and reduced maternal mortalities by 20 – 25%  
• A model for replication across the Country in any state |
Impact - Doing More with Less for More
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Award-winning GVK EMRI

Received prestigious awards from The Computer World, Microsoft, IT User – CNBC, 9-1-1 of USA, Ahmedabad Management Association, eIndia, CSI Nihilent and HEAL Foundation
To Conclude

• Reduction in poverty and increase in Quality of Life can be achieved by Caring, Valuing and Respecting Life with Humaneness, Humility and Commitment to serve people

• This Joy of Giving back to society increases Dopamine (Satisfaction), Oxytocin (Attachment) and Frontal Cortex Activity (Morals)
THANK YOU

Subodh Satyawadi

Chief Operating Officer, GVK EMRI
108 – Emergency Response Service, Gujarat

www.emri.in