Emergency call management, dispatch services, Emergency call operators-experience and plans from Romania

Dr. Bogdan Oprita
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UE MEMBER STATE 2007

NATO MEMBER STATE 2004
Romania

Surface = 238.391 km²
Population = 19.922.540
Public roads: 82.386 km
Highways: 695,4 km

Existing risks:
Natural (earthquakes, land slides, floods)
CBRN (chemical, biological, radiological, nuclear)
Tehnological
Fires
Social
26 years ago, Romania had a different system. Each emergency system had its own dispatch and the communication was very difficult between the different services.

**FIRE FIGHTERS = 981**

**AMBULANCE = 961**

Also, the Civil Protection was under the coordination of the Ministry of Defence.
The first resuscitation ambulance of the Mobile Emergency Service for Resuscitation (SMUR)

In 1990, the system relied on the transfer of a fully-equipped hospital medical team where the patient was in critical condition in order to provide qualified emergency medical care. The team was headed by a specialist doctor in anaesthesia, intensive care and emergency medicine.
2001

The first integrated dispatch in Mures county

FIRE FIGHTERS - 981

AMBULANCE - 961

Mureș - First integrated dispatch
2003

Regulations are laid down for the first time in Romania in order to implement the 112 Single European Emergency Call Number, the technical and organisational calls reception and reporting system for fire incidents, accidents, medical emergencies, disasters and other events that require the authorised agencies’ immediate response.
New functions:

- Simultaneous alert of agencies;
- Cooperation start in the moment of alert;
- ANI/ALI;
- Position on map: event, resources, responsibility zone;
- Plans, events index, contacts list, data archive, common procedures, resources administration;
- Data post process: analyses, statistics, reports;
- Multiple languages;
- eCall – automatic alert.

Facts:

- Each agency has its own emergency call number;
- Difficult cooperation among agencies;
- Inexistent ANI/ALI (automatic identification of phone number and address);
- Impossibility to see resources on the map;
- Commune procedures for intervention - inexistent.

2003

2004
SMURD HELICOPTER DISPATCH - 2004
In each district capital exist: voice and data connection with emergency dispatch agencies: Fire-SMURD, ambulance, police, etc.

In each district capital there is an interconnection between 112 Fire and Emergency Incident Management System (SMISU).
EMERGENCY CALL

112 CALL CENTER

AMBULANCE
  -> RESPONSE TEAM

FIRE-SMURD
  -> RESPONSE TEAM

POLICE
  -> RESPONSE TEAM

OTHER AGENCIES
  -> RESPONSE TEAM
## SPECIFIC INDEX

### II. Boală Nediagnosticată

<table>
<thead>
<tr>
<th>Tipul și codul urgenței</th>
<th>Prim ajutor calificat</th>
<th>Asistență medicală de urgență</th>
<th>Alte echipaje de intervenție</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>EPA (Fart capacitate transport)</td>
<td>EMU B2</td>
<td>EMU B1/C2</td>
</tr>
<tr>
<td><strong>II. Boală Nediagnosticată</strong></td>
<td>EPA</td>
<td>EMU B2</td>
<td>EMU B1/C2</td>
</tr>
</tbody>
</table>

### III. Codul roșu

- **inconștiență**
  - E | P1 | P3 | P2 | P1 | P1-E | E | E | E

- **nivel scăzut de conștiență**
  - E | P1 | P3 | P2 | P1 | P1-E | E | E | E

- **difficultate serioasă în respirație**
  - E | P1 | P3 | P2 | P1 | P1-E | E | E | E

- **tegumente palide și umede, aproape sincopă**
  - E | P1 | P3 | P2 | P1 | P1-E | E | E | E

- **pacient slăbit cu durere toracică**
  - E | P1 | P3 | P2 | P1 | P1-E | E | E | E

- **durere toracică și greață**
  - E | P1 | P3 | P2 | P1 | P1-E | E | E | E
ADVISE FOR CALLER

- nu se moblizeaza pacientul decat daca este absolut necesar
- se astepta sosirea ambulantei
- se apeleaza din nou 112 daca starea pacientului se modifica
1. LOCALIZAREA SI UNDE SE DUCE DURAREA;
2. DURATA EI (DE CAT TIMP?);
3. SE AGRAVEAZA CU RESPIRATIA/STUSEA?
4. CEDEAZA/SE AMELIOREAZA CU POZITIA?
5. ATI LUAT UN MEDICAMENT PENTRU DURERE? CE MEDICAMENT?
6. SUFERITI DE VREO BOALA?
Plan general de acțiune

- Alertare PA
- PA pleaca la caz
- PA ajunge la caz
- Alertarea UTIM daca e cazul
- UTIM pleaca la caz
- UTIM ajunge la caz
- Alertare MMU daca e cazul
- MMU pleaca la caz
- MMU ajunge la caz
- MMU asociat la caz
- MMU coordoneaza caz
- Prealertare elicopter SMURD

Data: 19.02.2009
Where we are
THE NATIONAL SYSTEM FOR EMERGENCY INTERVENTIONS

- First Aid
- Resuscitation
- Hospital
- Advance Life Support
112

- 37 dispatches with the Fire Fighters/SMURD - AMBULANCE
- 2 integrated dispatches
Other dispatches
BUCHAREST

the new integrated dispatch started its activity in 2018
Air rescue
NEONATAL INTENSIVE CARE UNIT
INTERVENTION AREAS FOR SMURD HELICOPTERS

Legend:
• Circular area – response until 20 min.
• Regional area – response until 40 min.
until N-V SMURD airbase become operational.
INTERVENTION AREAS FOR SMURD HELICOPTERS

Legend:
- Circular area – response until 20 min.
- Regional area – response until 40 min. until N-V SMURD airbase become operational.
BUCHAREST DISPATCH - 112 CALLTAKER
BUCHAREST DISPATCH-FIRE
BUCHAREST DISPATCH-SMURD (MEDICAL)
Distribution of calls received in Unique Call Centers for the 2013-2018 period

- Apeluri NON-URGENTE
- Apeluri de URGENȚĂ

Year:
- 2013
- 2014
- 2015
- 2016
- 2017
- 2018

Calls (in thousands):
- 2013: 12,000,000
- 2014: 11,000,000
- 2015: 10,000,000
- 2016: 9,000,000
- 2017: 8,000,000
- 2018: 7,070,000
## STATISTICS (II)

<table>
<thead>
<tr>
<th>YEAR</th>
<th>Situation of 112 incoming calls</th>
<th>Situation of 112 incoming calls that were transferred to emergency agencies</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total calls</td>
<td>POLICE</td>
</tr>
<tr>
<td></td>
<td>NON-EMERGENCY calls</td>
<td>Total</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>%</td>
</tr>
<tr>
<td>2013</td>
<td>17,463,468</td>
<td>12,383,150</td>
</tr>
<tr>
<td>2014</td>
<td>16,434,007</td>
<td>10,800,956</td>
</tr>
<tr>
<td>2015</td>
<td>15,561,664</td>
<td>9,634,679</td>
</tr>
<tr>
<td>2016</td>
<td>14,600,440</td>
<td>8,552,087</td>
</tr>
<tr>
<td>2017</td>
<td>13,711,362</td>
<td>7,564,684</td>
</tr>
<tr>
<td>2018</td>
<td>7,645,426</td>
<td>4,252,336</td>
</tr>
</tbody>
</table>
Situation of 112 incoming calls that were transferred to emergency agencies from the beginning of the present year to the end of July

- Ambulance: 59.00%
- Police: 21.50%
- ISU-SMURD: 16.00%
- Gendarmerie: 3.29%
- Others agencies: 0.21%
Romania – development regions

Regiunile de dezvoltare ale României:
1. NORD-EST
2. SUD-EST
3. SUD-Muntenia
4. SUD-VEST-Oltenia
5. VEST
6. NORD-VEST
7. CENTRU
8. BUCUREȘTI-ILFOV

Legendă:
- DRUMURI EUROPIENE
- RESEDA DE JUDEȚ
- SEDI DE AGENTII REGIONALE
LEGAL FRAME

- Law no. 92/1996 on the organization and functioning of the Special Telecommunications Service, modified by the Government Emergency Ordinance no. 7 / 30.01.2002, approved by Law no. 332 of 31.05.2002;
- The Government Emergency Ordinance no. 34/2008 on the organization and functioning of the National System for Emergency Calls approved by Law no. 160/2008;
- Law no. 218/2002 on the organization and functioning of the Romanian Police with subsequent amendments and completions;
- Law no. 550/2004 on the organization and functioning of the Romanian Gendarmerie;
- Law 95/2006 on Health Reform, Title IV, with subsequent amendments and completions;
- Government Decision no. 1118/2005 regarding the designation of the specialized structures of the Romanian Gendarmerie and the specialized unit of the Romanian Intelligence Service as specialized intervention services;
- Government Ordinance no. 88/2001 on the establishment, organization and functioning of the community public services for emergency situations, with subsequent amendments and completions;
- Government Emergency Ordinance no. 1/2014 regarding some measures in the field of emergency management, as well as for the modification and completion of Government Emergency Ordinance no. 21/2004 on the National Emergency Situation Management System;
- Government Decision no. 94 of 12 February 2014 on the organization, operation and composition of the National Emergency Special Committee;
- Government Decision no. 121 of 19 February 2014 on the organization, functioning and composition of the National Committee for Weather and Disasters;
STEPS IN MANAGEMENT OF MULTIPLE TRAUMA PATIENT

Accident scene
Prehospital
Emergency Department
Operating Room

Golden hour
Platinum half an hour
Superconductor quarter of hour

PE Pepe (Buxelles, 2001)

PRIMUM NON NOCERE!!!
EMERGENCY CALL SYSTEM

Criteria:
1. Administrative organization of country (regions, districts, counties, etc.);
2. Particularities of administrative organization (urban vs. rural);
3. Organisation of emergency system (agencies, resources, etc.);
4. Geography;
5. Climate;
6. Population;
7. Density of population;
8. Medical status of population;
9. Infrastructure (roads, highways, bridges, tunnels, airports, etc.);
10. Risks (both natural and human);
FUTURE GOALS and MEANS

GOALS:
• reduce the total time of emergency call;
• reduce the response time of emergency teams;
• improve the dispatch actions: the appropriate resource for the appropriate case.

MEANS:
• Integrated dispatch center (all agencies in the same place and also liaison officers from other agencies or utility companies);
• Regionalization of dispatch;
• The establishment of a dispatcher profession (who can manage all types of emergency call-fire, medical, etc.)
COST-ACCEPTANCE OF CHANGE

COST

PROGRAMMED

REACTIVE

CRISE

ACCEPTANCE