The Danish national 112 system

Søren Ipsen
Chief Fire Officer
5 regions

- The regions have the main responsibility for the provision of hospital services and the ambulance service
- 1 staffed control room in each region
98 municipalities

- In charge of the fire services
- Only some fire brigades have staffed control rooms
- Those fire brigades or the private emergency company Falck provide control room services to some other fire brigades
12 police districts

- 1 staffed control room in each district
112 is main emergency number

- but we also have some service numbers
Knowledge of 112

Knowledge of 112 as the EU-wide emergency number

<table>
<thead>
<tr>
<th>Country</th>
<th>112</th>
<th>Other number(s)</th>
<th>DKINA</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE</td>
<td>96%</td>
<td>0%</td>
<td>3%</td>
</tr>
<tr>
<td>FI</td>
<td>95%</td>
<td>1%</td>
<td>4%</td>
</tr>
<tr>
<td>NL</td>
<td>84%</td>
<td>1%</td>
<td>4%</td>
</tr>
<tr>
<td>DK</td>
<td>92%</td>
<td>3%</td>
<td>5%</td>
</tr>
<tr>
<td>RO</td>
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<td>0%</td>
<td>5%</td>
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<tr>
<td>PT</td>
<td>88%</td>
<td>5%</td>
<td>5%</td>
</tr>
<tr>
<td>MT</td>
<td>92%</td>
<td>5%</td>
<td>15%</td>
</tr>
</tbody>
</table>

GROUP 1: 112 is the sole/main emergency number

Average: 52% 1% 5% 3%

GROUP 2: 112 operates alongside other emergency numbers

Average: 39% 53% 16% 4%
How to promote 112

• National 112 day on February 11th
• Documentary on TV called “Alarm 112”
• Number on emergency vehicles
• Teaching materials for children
3 Public Safety Answering Points

- The Danish National Police operates 2 PSAPs:
  - Aarhus
  - Slagelse
- The Copenhagen Fire Brigade operates 1 PSAP
The 112 models in Denmark

- Outside Copenhagen
The 112 models in Denmark

- In Copenhagen
Control room software

• The 2 PSAPs operated by the police use the same software with shared servers.
• The PSAP operated by the Copenhagen Fire Brigade uses a different technical platform.
• The control rooms in the 12 police districts are identical from a technical point of view.
• The 5 regions have nearly identical control rooms. Until recently only the different emergency medical services had control rooms in order to dispatch own resources without any co-operation with other EMS.
• The staffed control rooms in the municipal fire departments use different setups, but the software is supported mainly by two providers.
Technology providers

- Some examples:
  - IHM
  - IBS
  - Intergraph
  - Frequentis
  - Terma
  - Swissphone
  - Motorola
  - ...
112 access

- Emergency calls can be done on cell phones even though the phone is without a SIM card.
- Before getting in contact with the call-taker the citizen hears a voice response saying that the call is going to be forwarded to a PSAP. This information probably avoids some hoax calls.
- The call-taker is able to see the citizen’s phone number and address, when an emergency call is made from landline phone.
- If the call comes from a cell phone, the control room software shows the fairly accurate location to the call-taker.
Emergency call statistics

• The 2 PSAPs in Aarhus and Slagelse cover appr. 4.2 mio. inhabitants and handle over 80,000 calls a month.

• More than 60% of all calls stop here, because the citizen just needs some pieces of information or because of the fact, that it is a hoax call.

• The PSAP in Copenhagen covers appr. 1.2 mio. inhabitants and receives more than 600,000 emergency calls a year. Those calls lead to
  ▶ 70,000 assignments for the emergency medical services and 11,500 assignments for the fire brigades

• Altogether 80% of all emergency calls concern need for medical assistance.
Call-handling

- If an emergency call isn’t answered within 10 seconds, the call is forwarded to another PSAP.
- Statistics from one of the 5 regions show that the conversation between the citizen and the call-taker in the regional control room takes 3 minutes in average.
- Personnel in the PSAPs in Aarhus and Slagelse consists of police officers (3 weeks of training).
- Call-takers in the PSAP in Copenhagen are former fire-fighters/paramedics or “civilians”
eCall

- The pan-European in-vehicle eCall is an emergency call including precise location generated automatically when a severe accident occurs.
- Denmark has signed the Memorandum of Understanding concerning eCall, but the Danish National Police hasn’t yet planned how to implement eCall.
Public warning for citizens

- National siren warning system.
- Persons who are hearing-impaired may subscribe to the warning system at the DEMA and thus receive text message warnings on cell phones.
- Emergency messages on TV, on radio and on internet.
- Until last year authorities were able to inform citizens by using the site kriseinfo.dk.
- Companies provide services that can send voice messages to landline phones or text messages to cell phones.
Contact details

Søren Ipsen
Chief Fire Officer

http://dk.linkedin.com/pub/søren-ipsen/38/86/84b

Kolding Fire Department
Nytorv 11
DK-6000 Kolding
DENMARK

soip@kolding.dk